Medical labour force
1996

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Medical labour force 1996

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Foreword

During the decade 1986–96 the number of medical practitioners enumerated at the population census increased by 34.7% from 32,790 to 44,160, compared with population growth of 14.3%. Despite this rapid growth, workforce shortages still remain in key areas of medical services: rural and remote medicine, hospital services and some specialty areas. At the same time the Australian Medical Workforce Advisory Committee has found that general practice workforce provision in capital cities significantly exceeds need.

The Australian Health Ministers' Advisory Council therefore has considered that regular statistical monitoring of the medical labour force is a high priority in adequately planning and evaluating measures to address such workforce issues. Hence the Australian Institute of Health and Welfare, in conjunction with State and Territory health authorities and medical boards, conducts an annual survey of the medical labour force. The support of registered medical practitioners is both needed and appreciated in achieving a high response to the survey and providing reliable data for monitoring, planning and evaluation.

Data in this report generally refer to the registration period of September–December 1996, when there were 47,682 employed medical practitioners in Australia. The Institute is committed to improving the timeliness of the publication of the annual survey data and plans to release the next annual report in early 1999 and to publish the subsequent report before the end of 1999.

This report represents a major change in approach to providing medical workforce information. Additional and more detailed tables are provided but the majority of the tables for the report are excluded from the hard-copy book and are being released (along with the report) on the Institute's Internet site; users without Internet access may purchase the tables on disk. It is expected that this approach will improve the timeliness of publication and better meet user needs to download and extract medical labour force information. The Institute is committed to better meeting the information needs of users and readers are invited to comment on the format, content and dissemination tools used for this report.

Richard Madden
Director
July 1998

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Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
AMWAC	Australian Medical Workforce Advisory Council
CMO	career medical officer
DEETYA	Department of Employment, Education, Training and Youth Affairs
ENT	ear, nose and throat
GP	General practitioner
HMO	hospital medical officer
NSW	New South Wales
NT	Northern Territory
OMP	other medical practitioner
OTD	overseas-trained doctor
Qld	Queensland
RACGP	Royal Australian College of General Practitioners
RMO	resident medical officer
SA	South Australia
Tas	Tasmania
UK	United Kingdom
USA	United States of America
Vic	Victoria
VRGP	vocationally registered general practitioner
WA	Western Australia

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List of supplementary tables

These tables are on the Internet at *http://www.aihw.gov.au* or may be purchased on disk from the Institute for $20 (phone (02) 6244 1032 or fax (02) 6244 1044).

1 Main features

The following overview highlights key findings in this report in respect of a number of major medical workforce issues facing national, State and local planners. More detail on these and other medical workforce issues may be found in analyses in later chapters, in the statistical data presented in this report and in supplementary statistical tables published on the Institute's Internet site at *http://www.aihw.gov.au*.

Overall numbers

- The Australian medical labour force in December 1996 comprised 48,355 practitioners of whom 47,682 were employed and practising in medicine, 407 were on extended leave and 266 were looking for work in medicine.
- 45,342 practitioners were clinicians: 20,516 (45.2%) primary care practitioners, 4,630 (10.2%) hospital non-specialists, 15,744 (34.7%) specialists and 4,451 (9.8%) specialists-in-training.

Distribution among States and Territories

- There were 246.2 clinicians per 100,000 population in Australia in 1996.
- There were significant State differences with a 23.2% difference between the jurisdictions with the lowest and highest supply. There were 223.7 clinicians per 100,000 population in the Northern Territory, 225.3 in Western Australia, 226.6 in Queensland, 230.9 in Tasmania, 246.7 in Victoria, 255.9 in New South Wales, 271.0 in the Australian Capital Territory and 275.6 in South Australia.

Rural medical workforce

Remedying a much lower level of medical workforce provision in rural and remote areas has been a planning priority for the Commonwealth Government, and State and local governments and medical professional bodies for many years. There are now numerous incentive schemes to attract and retain doctors in rural areas.

- There were 142.9 practising medical practitioners per 100,000 population in rural and remote areas in 1996, compared with 308.2 per 100,000 population in metropolitan areas.
- 7,556 medical practitioners worked in a rural or remote area in their main job—15.4% of all medical practitioners. This proportion contrasts with the 28.9% of the population living in rural and remote areas in 1996, and the 30.8% of nurses employed in rural and remote areas in 1995.
- There were 88.2 primary care practitioners per 100,000 population (1 practitioner per 1,134 population) in rural and remote areas, compared with 121.8 primary care practitioners per 100,000 population (1 practitioner per 821 population) in metropolitan centres.
- Employed in the rural medical workforce were 1,794 female practitioners, or 23.7% of the rural workforce. The proportion of female practitioners was similar across the different geographic regions and across States and Territories, although higher in remote areas (28.5%).
- Medical practitioners employed in rural and remote areas worked an average of 49.8 hours per week. The average was 52.8 hours in remote areas. Some 17.2% of rural

practitioners worked 65 hours or more per week, compared with 13.6% in metropolitan centres.

- The majority of practitioners in rural and remote areas were employed in primary care (61.7%); 25.3% were specialists; 7.7% were hospital non-specialists; 2.4% were specialists-in-training; and the remaining 2.9% were non-clinicians.
- The distribution of rural practitioners across medical occupations differed by sex: 58.9% of males were employed in primary care and 30.1% were specialists; and 70.6% of females were employed in primary care, 12.8% were hospital non-specialists and 9.9% were specialists.

Female medical practitioners

- There were 13,196 employed female medical practitioners in 1996 comprising 27.7% of the employed medical workforce—an increase from 24.8% in 1993.
- Between 1993 and 1996, the number of female clinicians in the workforce increased by 17.7%, compared with a 3.7% increase for males.
- In 1996 females represented 42.1% of medical practitioners younger than 35 years, 32.5% of those aged 35–44 years, 20.3% of those aged 45–54 years, 13.8% of those aged 55–64 years and 10.6% of those aged over 65 years.
- The proportion of females completing initial medical degree courses has been increasing for many years from a low level, and rose from 39.8% in 1988 to 47.0% in 1996.
- The proportion of females commencing initial medical degree courses increased from 43.6% in 1989 to 48.5% in 1996 before falling to 45.8% in 1997. The fall in 1997 is associated with relatively low numbers of females commencing the new graduate entry courses.
- Female practitioners have been more likely than males to choose general practice as a career with 50.1% of primary care practitioners younger than 35 years and 58.2% of primary care trainees being female, compared with 22.1% of specialists younger than 35 years and 32.8% of specialists-in-training being female.

Doctors working very long hours

- 10.1% of clinicians reported working 65–79 hours per week and a further 4.5% reported working 80 or more hours.
- 56.1% of interns and resident medical officers worked 50–64 hours while 15.3% worked 65 or more hours per week. The AIHW medical labour force survey does not collect data on the length of shifts worked.
- 49.1% of specialists-in-training worked 50–64 hours per week, while 20.6% worked 65 or more hours.
- 41.2% of specialists worked 50–64 hours per week, while 17.0% worked 65 hours per week or more. In the surgical specialties, 28.7% of doctors worked 65 hours per week or more, compared with 19.7% in internal medicine, 4.9% in pathology specialists and 12.8% in other specialties. The main specialties in which practitioners worked 65 hours a week or more were cardiothoracic surgery (44.8%), vascular surgery (34.0%), orthopaedic surgery (30.7%) and paediatric surgery (30.1%).
- 32.4% of primary care practitioners worked 50–64 hours per week, and 11.5% worked 65 or more hours.

- 32.4% of salaried hospital career practitioners worked 50–64 hours per week, and 11.2% worked 65 or more hours.
- The highest proportions of doctors reporting working 80 or more hours per week were surgeons (9.6%), specialists-in-training (6.6%), internal medicine specialists (5.6%), and interns and resident medical officers (5.1%).

Aboriginal health service employment

- There were 547 medical practitioners in 1996 who indicated that the employment setting of their main, second or third job was an Aboriginal health service. No information is available on how many of these doctors were Aboriginal or Torres Strait Islander themselves.
- The distribution of Aboriginal health service clinicians in some States and Territories differed significantly from the distribution of the Aboriginal population: 11.3% of these clinicians were in Queensland with 26.2% of the Aboriginal population; 13.2% were in Victoria with 5.9% of the population; and 12.4% were in South Australia with 5.7% of the population. The other States and Territories had approximately the same proportion of Aboriginal health service clinicians as Aboriginal population.
- 63.0% of Aboriginal health service medical practitioners were located in a metropolitan area where 36.2% of the Indigenous population was located.
- 38.2% (209) of the 547 medical practitioners employed in an Aboriginal health were female.
- 49.2% of the practitioners were primary care practitioners; 36.4% were specialists; 4.4% were specialists-in-training; 6.4% were hospital non-specialists; and the remaining 3.6% worked in a non-clinical field including administration and education.

Medical workforce in hospitals

- There were 19,948 medical practitioners working in public hospitals, comprising 41.8% of all practising medical practitioners.
- 88.9% of all specialists-in-training worked in a public hospital, as did 83.2% of hospital non-specialists, 58.7% of specialists, 10.4% of primary care practitioners and 32.5% of non-clinicians.
- 85.1% of public hospital medical practitioners who worked as a clinician in their main hospital job were employed in metropolitan centres, followed by 13.8% in rural areas, and 1.1% in remote areas.
- Specialists represented 46.3% of doctors working in public hospitals, but the medical occupation distribution varied by region. In hospitals in small rural centres, primary care practitioners played a major role with 77.7% of the hospital workforce. In remote areas, primary care practitioners (41.5%) and hospital non-specialists (34.1%) were predominant.
- There were 4,904 medical practitioners working in private hospitals, comprising 10.2% of all employed medical practitioners.
- 19.5% of all specialists worked in a private hospital, as did 4.8% of primary care practitioners, 8.2% of specialists-in-training, 7.4% of hospital non-specialists, 4.8% of primary care practitioners and 5.7% of non-clinicians.

Overseas-trained medical practitioners

- Of the 47,682 employed medical practitioners in 1996, 82.0% had obtained their initial qualification in Australia (79.7%) or New Zealand (2.3%), and the remainder had qualified in the United Kingdom or Ireland (8.1%), Asia (5.7%) and in other countries (4.2%).
- These proportions varied across States and Territories. Medical practitioners working in Western Australia and Tasmania were more likely to have obtained their initial qualification overseas—30.1% and 31.8% respectively had initially qualified overseas—and more likely to have qualified in the United Kingdom or Ireland, 18.4% and 17.9% respectively. In the Northern Territory, 11.9% of medical practitioners had obtained their initial qualification from Asia, compared with the national average of 5.7%.
- Permanent resident overseas-trained medical practitioners were more likely to work in a rural or remote area if they had qualified in the United Kingdom or Ireland initially (25.4% worked in rural areas and 3.4% in remote areas), compared with those who had initially qualified in Asia (10.3% in rural areas and 0.3% in remote areas) or New Zealand (10.1% and 0.9% respectively).
- The 537 temporary resident medical practitioners included 399 overseas-trained doctors and 238 occupational trainees who had received initial medical training in Australia.
- Those who were overseas-trained were employed in primary care (30.5%) or as hospital non-specialists (28.1%), specialists (19.0%), specialists-in-training (18.9%) and non-clinicians (3.4%).
- In addition:
  - 47.3% of overseas-trained doctors had obtained their initial qualification in the United Kingdom or Ireland, along with 22.0% in New Zealand, 15.8% in Asia and 14.9% in other countries;
  - 75.4% were employed in their main jobs in a major urban centre, 18.3% in a rural area and 6.2% in a remote area; and
  - 55.0% practised in public hospitals and 29.6% practised from private rooms.

Medical education and training

- 1,743 Australian citizen and permanent resident students completed medicine courses in 1996: 1,327 (76.1%) completed undergraduate courses and 416 (23.9%) completed post-graduate courses. Of these, 832 (47.7%) were female—an increase from 40.5% in 1989.
- 1,233 Australian citizen and permanent resident students commenced initial medicine courses in 1997.
- Of these commencing students, 88.6% originated from a capital city or other metropolitan area, 10.1% came from a rural area and 0.5% came from a remote area.
- The average age of commencing students increased by 5–8 years at the three universities which introduced graduate entry to initial medical courses. This will decrease the lifetime contribution to the medical labour supply.

Additions to the medical workforce from migration

- 369 medical practitioners who were citizens of foreign countries permanently migrated to Australia in 1996-97. The majority (40.7%) had previously resided in Asia, 17.3% in the United Kingdom or Ireland, and 16.8% in New Zealand.
- During the same year, 159 permanent resident medical practitioners permanently migrated from Australia—32.1% to New Zealand.
- 1,597 medical practitioners who were citizens of foreign countries arrived in Australia in 1996–97 to take up temporary employment—513 for a long-term stay and 1,084 for a short-term stay. Of these, 69.1% had previously resided in the United Kingdom or Ireland and 7.7% in New Zealand. This was a large increase on the 1995–96 intake of 980, despite restrictions on access to rendering of Medicare services introduced in late 1996.
- During the same year, 437 Australian citizen or permanent resident medical practitioners left Australia temporarily to take up long-term employment overseas. They were intending to work in the United Kingdom or Ireland (33.6%), in Asia (29.2%), in the United States of America or Canada (20.4%) and in New Zealand (5.3%).
- In 1997, there were 222 overseas-trained doctors who passed the Australian Medical Council's clinical examination and became eligible for registration in Australia. This was a similar number to those of the previous five years.

Workforce growth

- Between 1984–85 and 1996–97, the number of medical practitioners providing Medicare services increased by 50.2% from 27,372 to 41,116. The population increased by 18.3% during this period.
- The annual growth in the number of medical practitioner Medicare providers declined to 1.7% in 1996–97 from 2.1% in 1995–96 and 3.0% in 1994–95—partly because restrictions in access to rendering of Medicare services were introduced in 1996 for new workforce entrants.
- From 1985–86 to 1995–96, full-time equivalent employment of salaried medical officers in public and repatriation hospitals increased by 40.8% from 9,300 to 13,095. Patient separations during the same period increased by 47.1% from 2.5 million to 3.6 million.

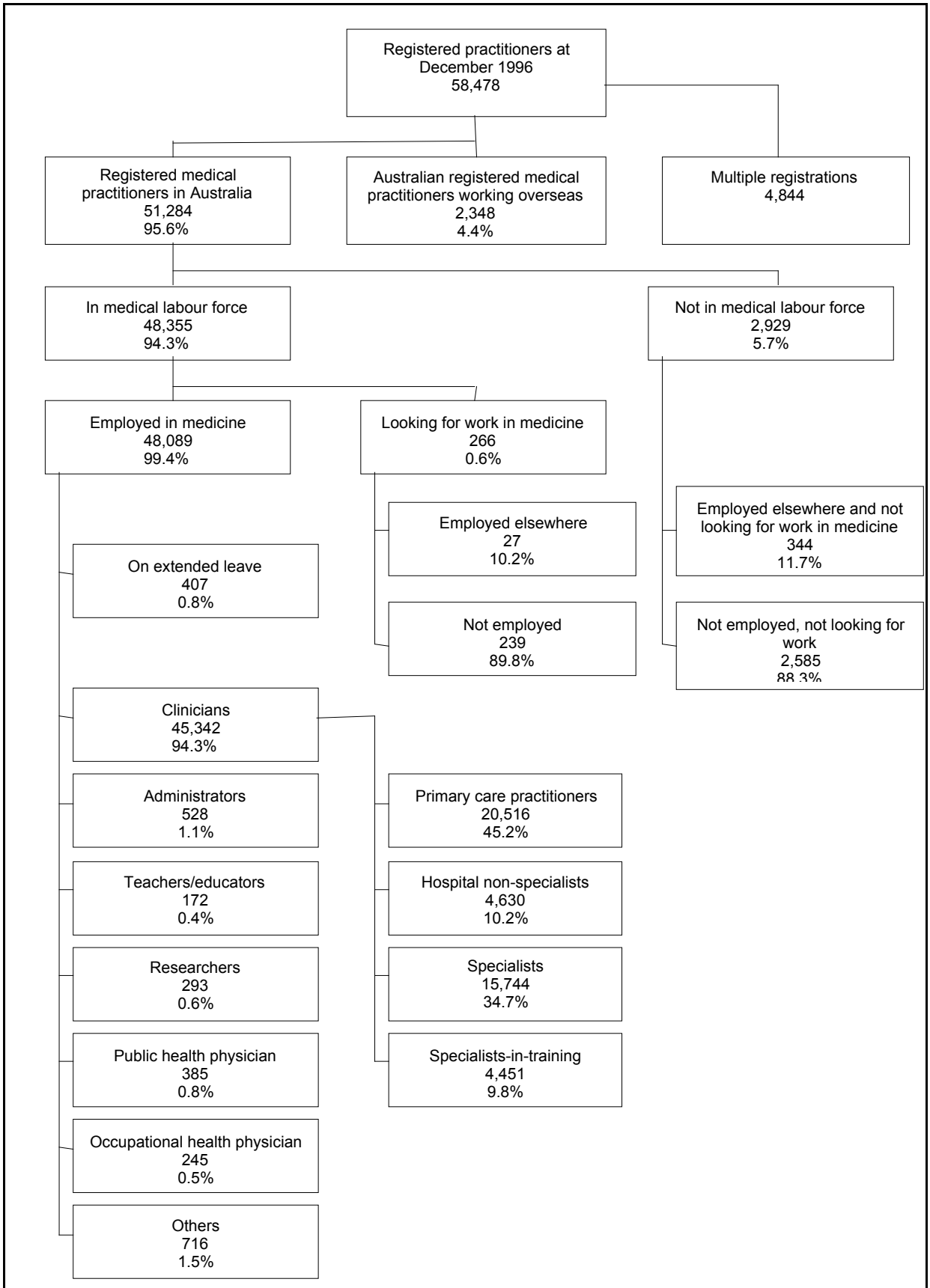

Figure 1: All registered medical practitioners, Australia, 1996

Table 1: Employed clinician medical practitioners: States and Territories, 1993–96

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
1993(r)	15,036	10,659	6,902	3,597	3,912	1,019	778	398	42,300
1994(r)	15,326	10,838	7,137	3,781	3,951	1,066	791	383	43,274
1995(r)	15,639	11,142	7,430	3,960	4,037	1,067	802	406	44,483
1996	15,971	11,304	7,639	4,015	4,068	1,095	836	414	45,342

(r) Revision of estimates published in previous reports. See Explanatory Notes for discussion of the revision methodology.

Table 2: Employed clinician medical practitioners: occupation and sex, Australia, 1993–96

Occupation	1993(r)	1994(r)	1995(r)	1996	% increase 1993 to 1996
			Males		
Primary care	13,255	13,320	13,946	13,865	4.6
Hospital non-specialist(a)	2,420	2,591	2,851	2,622	8.3
Specialist(a)	13,177	13,112	12,810	13,397	1.7
Specialist-in-training(a)	2,863	2,951	2,911	2,998	4.7
Total	*31,714*	*31,975*	*32,518*	*32,883*	*3.7*
			Females		
Primary care	5,664	5,988	6,462	6,651	17.4
Hospital non-specialist(a)	1,647	1,890	2,059	2,008	22.0
Specialist(a)	2,064	2,131	2,095	2,347	13.7
Specialist-in-training(a)	1,211	1,289	1,349	1,453	19.9
Total	*10,586*	*11,299*	*11,965*	*12,459*	*17.7*
			Persons		
Primary care	18,918	19,309	20,408	20,516	8.4
Hospital non-specialist(a)	4,067	4,481	4,910	4,630	13.9
Specialist(a)	15,240	15,244	14,905	15,744	3.3
Specialist-in-training(a)	4,074	4,240	4,261	4,451	9.3
Total	**42,300**	**43,274**	**44,483**	**45,342**	**7.2**
			(per cent female)		
Primary care	29.9	31.0	31.7	32.4	
Hospital non-specialist	40.5	42.2	41.9	43.4	
Specialist	13.5	14.0	14.1	14.9	
Specialist-in-training	29.7	30.4	31.7	32.6	
Total	25.0	26.1	26.9	27.5	

(a) Prior to 1995, Victoria used a questionnaire that was not standardised with the other States and Territories. The main effect was that specialists-in-training were included in the data for specialists or hospital non-specialists. Therefore, the 1993 and 1994 Victorian data for occupation have been estimated based on the distribution of these occupations in 1995 and 1996.

(r) Revision of estimates published in previous reports. See Explanatory Notes for discussion of the revision methodology.

Table 3: Employed medical practitioners: occupation and sex, States and Territories, 1996

Occupation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
Clinician	11,571	8,255	5,526	2,918	2,984	786	571	271	32,883
Primary care	4,932	3,338	2,358	1,259	1,255	377	230	115	13,865
Hospital non-specialist	1,059	484	557	164	210	58	56	34	2,622
Specialist	4,559	3,558	2,090	1,271	1,272	290	254	103	13,397
Specialist-in-training	1,020	876	521	224	246	61	31	19	2,998
Non-clinician	550	497	238	89	123	37	56	13	1,603
Administrator	126	88	53	26	38	6	19	7	365
Teacher/educator	41	33	17	8	17	2	2	1	121
Researcher	65	59	13	12	22	0	8	1	181
Public health physician	73	56	44	20	21	8	5	3	231
Occupational health physician	83	58	17	16	8	5	8	0	196
Other	162	203	93	6	15	16	14	0	509
Total	*12,121*	*8,752*	*5,764*	*3,007*	*3,107*	*823*	*627*	*284*	*34,486*
					Females				
Clinician	4,399	3,048	2,112	1,097	1,085	309	265	144	12,459
Primary care	2,252	1,593	1,163	626	569	185	165	98	6,651
Hospital non-specialist	825	357	383	159	161	56	42	26	2,008
Specialist	822	680	342	189	223	40	37	14	2,347
Specialist-in-training	500	418	225	123	132	28	22	7	1,453
Non-clinician	281	214	99	48	51	12	20	11	737
Administrator	68	25	25	18	15	1	7	3	163
Teacher/educator	27	14	5	2	3	0	0	0	51
Researcher	48	32	7	10	5	3	4	3	112
Public health physician	47	45	28	12	13	2	4	3	154
Occupational health physician	21	16	4	2	5	1	0	0	49
Other	70	81	30	4	10	4	5	2	207
Total	*4,680*	*3,262*	*2,211*	*1,145*	*1,136*	*321*	*286*	*155*	*13,196*
					Persons				
Clinician	15,971	11,304	7,639	4,015	4,068	1,095	836	414	45,342
Primary care	7,185	4,931	3,521	1,885	1,824	563	395	212	20,516
Hospital non-specialist	1,884	841	941	323	371	114	98	59	4,630
Specialist	5,381	4,238	2,431	1,461	1,495	330	291	117	15,744
Specialist-in-training	1,521	1,294	746	346	378	88	53	25	4,451
Non-clinician	831	711	337	136	174	49	77	24	2,340
Administrator	194	114	78	44	53	7	27	11	528
Teacher/educator	67	47	22	10	20	2	2	1	172
Researcher	113	91	20	22	27	3	12	5	293
Public health physician	120	101	72	32	34	10	9	6	385
Occupational health physician	104	75	21	18	14	6	8	0	245
Other	233	284	123	10	25	21	19	2	716
Total	**16,802**	**12,015**	**7,976**	**4,151**	**4,242**	**1,144**	**913**	**439**	**47,682**

Table 4: Employed medical practitioners per 100,000 population: occupation, States and Territories, 1996

Occupation	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Clinician	*255.9*	*246.7*	*226.6*	*225.3*	*275.6*	*230.9*	*271.0*	*223.7*	*246.2*
Primary care	115.1	107.6	104.4	105.8	123.6	118.7	127.9	114.7	111.4
Hospital non-specialist	30.2	18.4	27.9	18.1	25.1	24.0	31.7	31.9	25.1
Specialist	86.2	92.5	72.1	82.0	101.3	69.6	94.2	63.3	85.5
Specialist-in-training	24.4	28.2	22.1	19.4	25.6	18.6	17.1	13.7	24.2
Non-clinician	*13.3*	*15.5*	*10.0*	*7.7*	*11.8*	*10.4*	*24.8*	*13.2*	*12.7*
Administrator	3.1	2.5	2.3	2.5	3.6	1.6	8.6	5.7	2.9
Teacher/educator	1.1	1.0	0.7	0.6	1.4	0.5	0.5	0.8	0.9
Researcher	1.8	2.0	0.6	1.2	1.8	0.6	3.9	2.5	1.6
Public health physician	1.9	2.2	2.1	1.8	2.3	2.1	3.0	3.3	2.1
Occupational health physician	1.7	1.6	0.6	1.0	0.9	1.3	2.6	0.0	1.3
Other	3.7	6.2	3.7	0.6	1.7	4.3	6.3	0.9	3.9
Total	**269.2**	**262.3**	**236.6**	**233.0**	**287.4**	**241.3**	**295.9**	**236.9**	**258.9**
				(per cent of national total)					
Clinician	*104.0*	*100.2*	*92.0*	*91.5*	*112.0*	*93.8*	*110.1*	*90.9*	*100.0*
Primary care	103.4	96.6	93.8	95.0	110.9	106.6	114.8	103.0	100.0
Hospital non-specialist	120.1	73.0	111.0	72.0	100.0	95.4	126.3	127.0	100.0
Specialist	100.9	108.2	84.4	95.9	118.5	81.4	110.3	74.1	100.0
Specialist-in-training	100.8	116.9	91.5	80.4	106.0	77.2	70.9	56.8	100.0
Non-clinician	*104.8*	*122.2*	*78.7*	*60.3*	*92.7*	*81.9*	*195.5*	*103.9*	*100.0*
Administrator	108.5	86.5	81.1	86.3	125.8	55.2	300.8	199.3	100.0
Teacher/educator	114.9	109.6	71.1	61.1	146.3	55.6	52.6	83.4	100.0
Researcher	114.0	124.9	37.9	77.7	115.8	36.0	243.5	157.5	100.0
Public health physician	92.2	105.5	102.2	86.1	111.3	99.7	143.8	157.9	100.0
Occupational health physician	125.1	122.3	45.9	76.0	70.5	98.0	194.9	0.0	100.0
Other	95.8	159.3	94.1	14.5	43.7	111.5	160.7	23.0	100.0
Total	**104.0**	**101.3**	**91.4**	**90.0**	**111.0**	**93.2**	**114.3**	**91.5**	**100.0**

Table 5: All registered medical practitioners: employment status and sex, States and Territories, 1996

Employment status	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
Only in this State	11,726	8,590	5,632	2,989	2,968	805	552	268	33,530
Mainly in this State	395	162	132	18	139	19	75	16	956
Total	*12,121*	*8,752*	*5,764*	*3,007*	*3,107*	*823*	*627*	*284*	*34,486*
Mainly in another State	513	143	99	38	57	24	84	130	1,089
Only in other States	944	497	500	94	309	189	126	191	2,851
Total	*1,457*	*640*	*599*	*133*	*366*	*213*	*211*	*321*	*3,940*
On extended leave	53	48	16	12	12	5	3	3	151
Practising overseas	776	462	223	36	150	44	36	17	1,744
Currently not employed	874	335	236	154	264	99	40	22	2,024
Employed, not in medicine	132	75	26	16	23	0	6	1	280
Total	*15,412*	*10,313*	*6,864*	*3,358*	*3,922*	*1,185*	*923*	*648*	*42,625*
					Females				
Only in this State	4,600	3,244	2,199	1,141	1,116	318	267	150	13,035
Mainly in this State	80	18	12	4	20	3	21	5	163
Total	*4,680*	*3,262*	*2,211*	*1,145*	*1,136*	*321*	*288*	*155*	*13,198*
Mainly in another State	95	24	17	4	17	7	16	11	191
Only in other States	242	157	108	26	63	52	21	46	714
Total	*336*	*180*	*125*	*30*	*80*	*59*	*37*	*57*	*905*
On extended leave	92	81	39	18	17	1	1	7	256
Practising overseas	265	178	69	8	52	13	13	5	604
Currently not employed	380	155	98	36	72	32	18	8	799
Employed, not in medicine	35	26	18	2	10	1	0	0	91
Total	*5,789*	*3,883*	*2,561*	*1,238*	*1,366*	*427*	*357*	*232*	*15,853*
					Persons				
Only in this State	16,326	11,835	7,832	4,129	4,083	1,122	819	418	46,565
Mainly in this State	475	180	144	22	159	22	96	21	1,119
Total	*16,802*	*12,015*	*7,976*	*4,151*	*4,242*	*1,144*	*915*	*439*	*47,684*
Mainly in another State	608	167	116	42	74	31	101	141	1,280
Only in other States	1,185	653	608	120	372	241	148	237	3,565
Total	*1,793*	*820*	*724*	*162*	*446*	*272*	*248*	*378*	*4,844*
On extended leave	145	130	55	30	28	6	4	9	407
Practising overseas	1,041	641	292	44	202	57	49	22	2,348
Currently not employed	1,253	490	334	190	336	132	58	30	2,823
Employed, not in medicine	167	100	44	18	33	1	6	1	371
Total	**21,201**	**14,196**	**9,425**	**4,596**	**5,288**	**1,612**	**1,280**	**880**	**58,478**

Table 6: Employed medical practitioners: occupation, age and sex, Australia, 1996

Occupation	Age (years)							
	<25	25–34	35–44	45–54	55–64	65–74	75+	Total
				Males				
Clinician	296	6,446	9,188	8,578	4,872	2,808	694	32,883
Primary care	4	1,783	4,210	3,852	2,081	1,493	441	13,865
Hospital non-specialist	292	1,783	331	127	61	27	2	2,622
Specialist	0	482	4,110	4,536	2,729	1,288	251	13,397
Specialist-in-training	0	2,399	536	63	0	0	0	2,998
Non-clinician	9	183	324	363	331	289	104	1,603
Administrator	0	16	95	116	91	42	5	365
Teacher/educator	0	8	15	32	29	29	8	121
Researcher	0	35	53	22	37	22	11	181
Public health physician	5	55	64	50	34	21	2	231
Occupational health physician	0	15	36	61	47	28	9	196
Other	4	53	61	82	92	147	69	509
Total	*306*	*6,629*	*9,511*	*8,942*	*5,203*	*3,098*	*798*	*34,486*
				Females				
Clinician	328	4,549	4,324	2,127	735	324	72	12,459
Primary care	0	1,862	2,770	1,349	409	213	48	6,651
Hospital non-specialist	328	1,295	237	94	47	6	1	2,008
Specialist	0	219	1,080	641	279	106	22	2,347
Specialist-in-training	0	1,173	237	43	0	0	0	1,453
Non-clinician	15	148	262	148	96	58	9	737
Administrator	0	13	68	57	21	5	0	163
Teacher/educator	0	6	19	9	12	2	4	51
Researcher	0	33	53	15	6	5	0	112
Public health physician	6	43	51	22	17	15	0	154
Occupational health physician	0	7	22	10	8	4	0	49
Other	9	47	49	36	33	28	5	207
Total	*343*	*4,697*	*4,586*	*2,275*	*831*	*382*	*81*	*13,196*
				Persons				
Clinician	625	10,995	13,512	10,705	5,607	3,133	766	45,342
Primary care	4	3,644	6,980	5,201	2,491	1,706	490	20,516
Hospital non-specialist	620	3,078	568	221	108	33	3	4,630
Specialist	0	701	5,190	5,177	3,008	1,394	274	15,744
Specialist-in-training	0	3,572	774	106	0	0	0	4,451
Non-clinician	24	331	585	512	428	347	113	2,340
Administrator	0	29	163	173	112	47	5	528
Teacher/educator	0	14	34	41	41	31	12	172
Researcher	0	68	107	37	43	27	11	293
Public health physician	11	98	115	72	52	37	2	385
Occupational health physician	0	21	57	71	55	32	9	245
Other	14	100	110	118	125	174	75	716
Total	**649**	**11,326**	**14,097**	**11,217**	**6,034**	**3,480**	**879**	**47,682**

Note: A State and Territory dissection of these data is available on the Internet at *http://www.aihw.gov.au.*

Table 7: Employed clinician medical practitioners: occupation, total hours worked per week and sex, Australia, 1996

	Total hours worked per week							(per cent)	
Occupation	**1–19**	**20–34**	**35–49**	**50–64**	**65–79**	**80+**	**Total**	**65–79**	**80+**
				Males					
Primary care	584	1,109	4,341	5,774	1,498	560	13,865	10.8	4.0
VRGP	440	897	3,646	5,284	1,395	486	12,148	11.5	4.0
GP trainee	14	40	295	138	13	12	511	2.5	2.4
OMP	130	172	400	352	90	62	1,206	7.5	5.2
Hospital non-specialist	41	105	682	1,407	257	130	2,622	9.8	4.9
RMO/intern	16	47	421	1,112	199	101	1,896	10.5	5.3
Other	25	58	261	295	59	29	726	8.1	4.0
Specialist	582	936	3,503	5,883	1,749	745	13,397	13.1	5.6
Internal medicine	177	205	776	1,656	549	212	3,577	15.4	5.9
Pathology	25	38	216	234	23	9	544	4.2	1.7
Surgery	99	191	443	1,127	500	253	2,613	19.1	9.7
Other specialties	280	503	2,067	2,866	677	271	6,663	10.2	4.1
Specialist-in-training	14	39	738	1,503	494	210	2,998	16.5	7.0
Total	*1,221*	*2,189*	*9,263*	*14,567*	*3,999*	*1,644*	*32,883*	*12.2*	*5.0*
				Females					
Primary care	1,274	2,132	2,054	883	174	134	6,651	2.6	2.0
VRGP	1,024	1,760	1,519	714	143	109	5,269	2.7	2.1
GP trainee	92	188	328	87	13	4	712	1.8	0.6
OMP	158	184	207	82	18	21	670	2.7	3.1
Hospital non-specialist	96	132	570	933	181	97	2,008	9.0	4.8
RMO/intern	35	55	434	874	162	81	1,642	9.9	4.9
Other	61	76	136	59	19	16	367	5.0	4.3
Specialist	230	521	805	612	108	72	2,347	4.6	3.1
Internal medicine	57	115	184	161	36	20	574	6.2	3.6
Pathology	10	37	81	54	4	0	185	2.0	0.0
Surgery	4	10	27	29	17	8	95	17.4	8.4
Other specialties	147	365	524	360	55	42	1,494	3.7	2.8
Specialist-in-training	29	93	437	682	128	83	1,453	8.8	5.7
Total	*1,629*	*2,878*	*3,866*	*3,110*	*591*	*385*	*12,459*	*4.7*	*3.1*
				Persons					
Primary care	1,858	3,241	6,395	6,656	1,672	694	20,516	8.1	3.4
VRGP	1,465	2,657	5,165	5,998	1,537	594	17,417	8.8	3.4
GP trainee	106	228	623	224	26	16	1,223	2.1	1.3
OMP	287	356	607	434	109	83	1,876	5.8	4.4
Hospital non-specialist	137	236	1,251	2,340	438	227	4,630	9.5	4.9
RMO/intern	52	102	854	1,986	361	182	3,537	10.2	5.1
Other	86	134	397	354	77	45	1,093	7.1	4.1
Specialist	812	1,457	4,307	6,494	1,857	817	15,744	11.8	5.2
Internal medicine	234	321	961	1,817	585	233	4,151	14.1	5.6
Pathology	35	75	296	287	26	9	729	3.6	1.3
Surgery	104	201	470	1,156	517	261	2,708	19.1	9.6
Other specialties	427	867	2,592	3,227	732	313	8,157	9.0	3.8
Specialist-in-training	43	132	1,175	2,185	623	293	4,451	14.0	6.6
Total	**2,850**	**5,067**	**13,129**	**17,677**	**4,590**	**2,030**	**45,342**	**10.1**	**4.5**

Table 8: Employed clinician medical practitioners: occupation, total hours worked per week and region of main job, Australia, 1996

Occupation/ total hours worked per week	Region of main job: Capital city	Other metro. centre	Large rural centre	Small rural centre	Other rural area	Remote centre	Other remote area	Total
Primary care								
1–19	1,354	131	112	84	161	8	7	1,858
20–34	2,424	256	182	165	178	22	13	3,241
35–49	4,649	534	352	311	464	50	35	6,395
50–64	4,333	542	466	425	745	64	82	6,656
65–79	1,026	137	92	111	253	19	33	1,672
80+	409	49	25	50	136	4	21	694
Total	*14,195*	*1,649*	*1,229*	*1,146*	*1,937*	*168*	*191*	*20,516*
Hospital non-specialist								
1–19	117	9	9	1	1	0	0	137
20–34	177	24	13	14	6	2	0	236
35–49	949	138	99	33	11	10	11	1,251
50–64	1,715	272	200	51	44	34	25	2,340
65–79	354	21	40	8	9	2	5	438
80+	204	10	5	2	5	2	0	227
Total	*3,516*	*474*	*365*	*109*	*77*	*49*	*41*	*4,630*
Specialist								
1–19	652	59	57	28	13	3	0	812
20–34	1,258	78	52	42	21	4	1	1,457
35–49	3,491	309	304	149	46	7	1	4,307
50–64	5,168	488	557	208	52	11	10	6,494
65–79	1,422	153	197	56	23	6	1	1,857
80+	619	67	67	46	15	3	0	817
Total	*12,609*	*1,154*	*1,234*	*528*	*170*	*34*	*14*	*15,744*
Specialist-in-training								
1–19	38	3	1	1	0	0	0	43
20–34	117	11	5	0	0	0	0	132
35–49	1,056	83	25	3	3	1	3	1,175
50–64	1,939	165	70	6	1	3	1	2,185
65–79	523	50	40	6	3	1	0	623
80+	260	23	8	0	0	1	1	293
Total	*3,932*	*334*	*149*	*16*	*7*	*7*	*6*	*4,451*
Total								
1–19	2,161	201	179	115	175	11	7	2,850
20–34	3,977	369	252	221	206	28	15	5,067
35–49	10,145	1,065	779	496	524	69	51	13,129
50–64	13,154	1,467	1,293	689	842	113	118	17,677
65–79	3,324	361	369	181	288	27	39	4,590
80+	1,490	148	105	97	156	10	23	2,030
Total	**34,252**	**3,611**	**2,977**	**1,799**	**2,192**	**258**	**252**	**45,342**
	(per cent—region)							
Primary care								
65–79	7.2	8.3	7.5	9.7	13.1	11.1	17.3	8.1
80+	2.9	3.0	2.0	4.3	7.0	2.5	11.1	3.4
Hospital non-specialist								
65–79	10.1	4.4	10.9	7.8	12.3	3.3	11.6	9.5
80+	5.8	2.1	1.3	1.5	6.3	3.6	0.0	4.9
Specialist								
65–79	11.3	13.3	16.0	10.5	13.4	16.5	9.8	11.8
80+	4.9	5.8	5.5	8.7	8.8	8.2	0.0	5.2
Specialist-in-training								
65–79	13.3	14.9	26.6	36.4	40.0	20.0	0.0	14.0
80+	6.6	6.8	5.1	0.0	0.0	20.2	24.9	6.6
Total								
65–79	9.7	10.0	12.4	10.1	13.1	10.6	15.5	10.1
80+	4.4	4.1	3.5	5.4	7.1	4.0	9.0	4.5

2 Primary care practitioners

Primary care practitioners engage in general medical practice or in other fields of the primary care of patients. They include vocationally registered general practitioners (VRGPs), VRGP trainees and other medical practitioners (OMPs) who are not recognised general practitioners but whose Medicare patient billing is mainly for unreferred attendances.

The data in this chapter are presented for various sub-groups of primary care practitioners. The data for VRGPs, VRGP trainees and OMPs are mutually exclusive and sum to the total for primary care practitioners. This is not the case for special interest, locum and deputising service primary care practitioners, who are not mutually exclusive of each other or of the other primary care groups presented.

Monitoring of the primary care workforce is particularly important because:

- growth of the general practice workforce has slowed as a result of a reduction in training numbers;
- each year, the proportion of VRGPs has been increasing, and the proportion of OMPs declining, reflecting government financial incentives for formal qualifications in general practice, continuing education of primary care practitioners, and restrictions since 1996 on doctors becoming OMPs;
- the majority of new entrants to the primary care workforce are women, and continuation of this trend is expected to significantly change the work characteristics of the workforce;
- shortages of general practitioners in many rural and remote areas are considered a serious problem and numerous Commonwealth, State and local government incentive schemes have been introduced to attract and retain more rural doctors;
- locum and deputising service practitioners provide essential support to rural and urban practices, and the numbers of these may be affected by broader workforce change in general practice;
- increasing sub-specialisation is a feature of the total medical workforce and of primary care as a result of advances in research, technology and medical knowledge and trends towards specialising in care of sub-groups of the population.

Features of primary care practitioners in 1996 included the following:

- There were 20,516 primary care practitioners, of whom 17,417 were VRGPs (84.9%), 1,223 were RACGP trainees (6.0%) and 1,876 were OMPs (9.1%).
- 6,651 or 32.4% of primary care practitioners were female, compared with 29.9% in 1993.
- 51.0% of primary care practitioners younger than 35 years were female.
- 58.2% of general practice trainees were female.
- 43.3% of male and 69.6% of female primary care practitioners were younger than 45 years of age.
- 12.2% of male and 51.2% of female primary care practitioners worked fewer than 35 hours per week.
- 4.0% of male and 2.0% of female primary care practitioners worked 80 or more hours per week. These proportions almost doubled in small rural centres, other rural and remote areas (7.3% for males and 3.5% for females).
- 8.6% of primary care practitioners reported practising mainly in a special interest area of care, and the proportion was much higher for OMPs (27.5%).

- Special interest fields of practice were diverse, with the most popular being women's health (7.9% of special interest practitioners), sports medicine (6.6%), counselling and psychotherapy (6.5%) and general surgery (5.8%).
- 1.3% of primary care practitioners practised in an Aboriginal health service.
- 1,442 primary care practitioners reported employment as locums, and 316 employment in a deputising service, representing 8.6% of the primary care workforce.
- 75.3% of male and 81.1% of female primary care practitioners practised in metropolitan centres.
- 74.2% of male and 79.9% of female primary care practitioners gained their initial qualification in Australia.
- 36.1% of those primary care practitioners who had gained their initial qualification in the United Kingdom or Ireland practised in rural and remote areas, as did 23.6% of those who had qualified in Australia, 22.9% of those who had qualified in New Zealand, 8.2% of those who had qualified in Asia and 13.8% of those who had qualified in other countries.
- The number of Medicare primary care providers increased by 2.6% in 1994–95. This growth rate declined to 0.7% in 1995–96 and 0.6% in 1996–97.

The difference between the 20,516 primary care practitioners enumerated in 1996 in the AIHW labour force survey and the 24,526 Medicare providers of general practice services in 1996–97 is explained by about 4,000 salaried hospital non-specialists, medical educators, researchers and others who rendered private practice Medicare services as mainly unreferred attendances in 1996–97. Nearly all of these Medicare providers are classified by the Health Insurance Commission as OMPs and their level of Medicare activity is low.

Vocationally registered general practitioners

The AIHW labour force survey defines VRGPs as primary care practitioners who self-report being either vocationally registered or Fellows of the Royal Australian College of General Practitioners (RACGP).

Features of VRGPs in 1996 included the following.

- The 17,417 VRGPs in 1996 represented 84.9% of all primary care practitioners.
- 12,148 were male (69.7%) and 5,269 were female (30.3%).
- The average age was 49.1 years for males and 42.4 years for females.
- 51.6% of VRGPs younger than 35 years were female.
- 39.0% of males and 65.5% of females were younger than 45 years of age.
- Male VRGPs worked an average of 51.4 hours per week and female VRGPs worked an average of 34.7 hours per week.
- 11.0% of males and 52.8% of females worked fewer than 35 hours per week.
- Average hours per week worked by males increased relatively uniformly across all geographic regions, ranging from around 51 hours in metropolitan centres to 57.3 hours in remote areas. Female VRGPs worked an average of around 34 hours per week in metropolitan and large and small rural centres, 38.2 hours in other rural areas and 46.9 hours in remote areas.
- 74.7% of males and 81.3% of females had gained their initial qualification in Australia.

- 83.3% of those who were not permanent residents of Australia were practising in metropolitan centres in their main job.
- 77.8% of the primary care practitioners in remote areas were VRGPs, compared with 84.1% in capital cities, 84.8% in metropolitan centres and 86.2%, 91.1% and 87.6% in large rural, small rural and other rural areas respectively.

General practitioner (RACGP) trainees

General practitioner trainees practise under the supervision of an RACGP Fellow. The Commonwealth Government's Medical Training Review Panel (MTRP) collects data from the medical colleges on the numbers of training positions and trainees. The MTRP estimated that there were 1,603 general practice trainees in advanced training positions in 1997 (Department of Health and Family Services 1997).

The AIHW medical labour force survey data are self-reported and identified the following:

- There were 1,223 general practice trainees in 1996, comprising 6.0% of all primary care practitioners.
- 58.2% of RACGP trainees were female.
- 39.3% of female trainees worked fewer than 35 hours per week, compared with 10.5% of males.
- Male trainees worked an average of 45.4 hours per week and female trainees averaged 36.0 hours per week. Average hours worked by males ranged from a high of 48.0 in the Australian Capital Territory to a low of 41.3 in Victoria. Females averaged the longest hours in the Northern Territory (38.6) and the shortest in Western Australia (30.6).
- The average age of RACGP trainees was 32.8 years for males and 31.3 years for females.
- 71.4% of male trainees were located in metropolitan centres, 24.3% in rural areas and 4.3% in remote areas. Females were less likely to work in rural areas—77.7% were located in metropolitan centres, 19.2% in rural areas and 3.1% in remote areas.
- The main job of 84.2% of RACGP trainees was in private rooms, compared with 90.0% of all primary care practitioners. A further 7.1% had their main job in acute care hospitals and 4.2% worked mainly in non-residential facilities.
- 80.4% of male trainees and 82.6% of female trainees had gained their initial qualification in Australia.

Other medical practitioners

The AIHW labour force survey defines OMPs as primary care practitioners who do not self-report as being either vocationally registered or training to become vocationally registered. There were 1,876 primary care practitioners in this category in the 1996 survey. A further 4,572 medical practitioners were classified as OMPs by the Health Insurance Commission in 1996–97: these practitioners were mainly hospital non-specialists with low levels of Medicare billing activity.

The survey data identified the following:

- The 1,876 OMPs in 1996 comprised 9.1% of all primary care practitioners.
- 1,206 (64.3%) were male and 670 (35.7%) were female. This proportion varied significantly among States and Territories, from a high of 81.1% males in Tasmania to a low of 33.3% males in the Northern Territory.

- The average age was 42.8 years for males and 39.4 years for females. Some 38.4% of males and 39.8% of females were younger than 35 years of age.
- 24.9% of males worked fewer than 35 hours per week, compared with 51.1% of females.
- Males worked an average of 45.5 hours per week and females averaged 34.3 hours.
- 61.8% of males and 64.0% of females practised in metropolitan centres.
- 71.4% of OMPs practised from private rooms in their main job, 10.0% in acute care hospitals and 8.5% in non-residential facilities.
- 66.2% of males and 65.6% of females had gained their initial qualification in Australia. Of the remainder, 8.9% gained their initial qualification in New Zealand, 21.4% in the United Kingdom or Ireland, 30.4% in Asia and 39.3% in other countries.

Special interest primary care practitioners

There were 1,769 primary care practitioners (8.6%) practising mainly in a special interest area of primary care in 1996. This proportion varied across type of primary care practitioner—6.8% of VRGPs and RACGP trainees and 27.5% of OMPs.

Features of special interest primary care practitioners included the following:

- 7.9% of male and 10.2% of female primary care practitioners were practising mainly in a special interest area. This proportion varied among States and Territories: 2.9% of male and 2.7% of female primary care practitioners in Tasmania, compared with 20.9% and 18.4% respectively in the Northern Territory.
- 48.2% worked in recognised clinical specialties—54.3% of males and 38.5% of females.
- The largest special interest areas for male special interest primary care practitioners were sports medicine (8.5%) and general surgery (7.5%).
- The largest special interest areas for female special interest primary care practitioners were women's health (18.9%), family planning (6.1%) and counselling and psychotherapy (6.1%).
- 26.7% of all special interest primary care practitioners worked in the four largest special interest areas—women's health (7.9%), sports medicine (6.6%), counselling and psychotherapy (6.5%) and general surgery (5.8%).

Primary care locum tenens

There were 1,442 primary care practitioners who reported current employment as a locum tenens in 1996. Features of these medical practitioners included the following:

- 520 were female (36.1%), of whom 72.3% were younger than 45 years of age (compared with 45.5% of males).
- 29.6% of males and 4.6% of females were aged 65 years or more.
- 67.1% of female locums were VRGPs, 10.8% were RACGP trainees, and 22.2% were OMPs (compared with 64.2%, 5.8% and 30.0% respectively of males).
- 62.0% of female and 30.0% of male locums worked fewer than 35 hours per week.
- Male locums (21.7%) were more likely to work in a rural or remote area in their main job than female locums (15.0%).
- 68.7% of males and 75.0% of females had gained their initial qualification in Australia. Of those who had gained their initial qualification overseas, 40.5% of males had initially

qualified in the United Kingdom or Ireland and 37.7% of females had initially qualified in Asia.

- 83.8% of primary care locums practised in private rooms in their main job and a further 6.8% practised in acute care hospitals.

Primary care deputising service practitioners

There were 316 primary care practitioners who reported current employment as deputising service practitioners in 1996. Features of these medical practitioners included the following:

- 137 were female (43.2%), of whom 88.9% were younger than 45 years of age (compared with 65.3% of males).
- 59.5% of those younger than 35 years were female.
- 32.5% of female deputising service practitioners were VRGPs, 49.7% were RACGP trainees and 17.8% were OMPs (compared with 55.1%, 20.0% and 24.9% respectively of males).
- 34.2% of female and 11.7% of male deputising service practitioners worked less than 35 hours per week.
- 74.2% of males and 76.6% of females had gained their initial qualification in Australia. Of those who had gained their initial qualification overseas, 34.0% of males had initially qualified in the United Kingdom or Ireland and 34.0% in Asia, and 36.4% of females had initially qualified in Asia.
- 75.8% of deputising service practitioners practised in private rooms in their main jobs. A further 8.6% practised in acute care hospitals and 4.7% practised in non-residential facilities.

Table 9: Primary care practitioners: selected characteristics, States and Territories, 1996

Characteristic	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	%
Age group										
Males										
<35	476	486	359	161	221	42	18	24	1,787	12.9
35–44	1,369	1,109	715	385	391	128	85	29	4,210	30.4
45–54	1,494	862	614	313	358	104	71	36	3,852	27.8
55–64	832	422	351	218	158	56	26	18	2,081	15.0
65+	761	460	318	183	127	47	30	8	1,934	13.9
Females										
<35	558	499	350	161	168	53	33	40	1,862	28.0
35–44	924	658	500	257	240	78	76	37	2,770	41.6
45–54	499	262	234	141	119	41	40	12	1,349	20.3
55–64	163	108	37	48	24	10	13	6	409	6.2
65+	108	65	42	20	18	3	3	2	261	3.9
Total hours worked per week										
Males										
1–19	220	126	99	56	52	21	7	3	584	4.2
20–34	385	296	160	112	73	35	28	18	1,109	8.0
35–49	1,366	1,071	801	466	385	119	93	39	4,341	31.3
50–64	1,946	1,428	1,058	476	577	164	77	48	5,774	41.6
65–79	713	299	190	118	130	25	19	5	1,498	10.8
80+	302	118	49	32	38	13	5	3	560	4.0
Mean	52.1	49.4	48.9	48.2	50.4	48.5	47.3	46.8	50.3	
Median	52.0	50.0	50.0	49.0	50.0	50.0	47.5	48.0	50.0	
Mode	50.0	50.0	50.0	40.0	50.0	50.0	50.0	60.0	50.0	
Females										
1–19	394	311	246	145	117	27	27	7	1,274	19.2
20–34	694	507	327	223	210	78	56	36	2,132	32.1
35–49	679	524	409	162	147	49	57	27	2,054	30.9
50–64	341	180	144	65	81	28	19	24	883	13.3
65–79	88	38	23	14	6	1	1	2	174	2.6
80+	57	33	12	17	8	2	4	2	134	2.0
Mean	36.1	33.9	33.5	33.0	32.9	33.7	34.2	38.8	34.6	
Median	35.0	34.0	35.0	31.0	31.0	32.0	34.0	40.0	34.0	
Mode	40.0	40.0	40.0	40.0	30.0	50.0	40.0	50.0	40.0	
Region of main job										
Males										
Capital city	3,353	2,461	1,144	943	968	193	229	56	9,347	67.4
Other metro. centre	570	122	403	0	0	0	0	0	1,095	7.9
Large rural centre	214	148	349	0	16	76	1	0	804	5.8
Small rural centre	311	205	135	96	58	33	0	2	840	6.1
Other rural area	457	393	242	109	200	74	0	3	1,479	10.7
Remote	28	8	85	111	13	1	0	54	300	2.2
Females										
Capital city	1,669	1,276	686	533	477	112	165	48	4,965	74.6
Other metro. centre	243	54	132	0	0	0	0	0	429	6.5
Large rural centre	104	69	163	0	2	29	0	0	368	5.5
Small rural centre	109	67	61	23	16	18	0	0	293	4.4
Other rural area	123	126	92	36	70	27	0	4	476	7.2
Remote	5	1	28	34	4	0	0	46	119	1.8
Work setting of main job										
Private rooms	6,316	4,561	3,246	1,676	1,699	520	326	122	18,467	90.0
Non-residential facility	168	131	88	56	38	13	15	15	524	2.6
Aboriginal health service	23	11	17	31	4	3	1	51	141	0.7
Acute care hospital	517	75	85	26	22	12	3	3	743	3.6
Other residential facility	9	5	5	10	1	1	0	2	34	0.2
Educational institution	38	78	26	23	22	4	17	8	215	1.0
Defence forces	43	16	22	6	9	0	17	1	115	0.6
Other	72	54	31	57	27	10	15	11	278	1.4
Males	4,932	3,338	2,358	1,259	1,255	377	230	115	13,865	67.6
Females	2,252	1,593	1,163	626	569	185	165	98	6,651	32.4
Total	**7,185**	**4,931**	**3,521**	**1,885**	**1,824**	**563**	**395**	**212**	**20,516**	**100.0**

Table 10: Primary care practitioners: selected characteristics, region of main job, Australia, 1996

Characteristic	Region of main job: Capital city	Other metro. centre	Large rural centre	Small rural centre	Other rural area	Remote area	Total	%
Average age								
Males	48.6	49.0	47.4	47.1	46.9	44.0	48.3	. .
Females	41.4	40.3	40.6	41.8	40.8	38.0	41.2	. .
Total hours worked								
Males								
1–19	427	35	27	27	62	8	585	4.2
20–34	804	93	52	62	73	18	1,102	7.9
35–49	3,062	363	234	224	343	64	4,290	30.9
50–64	3,777	446	393	377	645	140	5,778	41.7
65–79	946	117	77	106	233	49	1,528	11.0
80+	331	41	20	45	123	22	582	4.2
Mean	49.4	50.2	50.6	52.3	54.5	55.9	50.3	. .
Females								
1–19	932	83	80	55	103	10	1,263	19.0
20–34	1,624	142	118	94	105	24	2,108	31.7
35–49	1,600	127	99	85	126	34	2,072	31.2
50–64	609	57	52	48	96	31	892	13.4
65–79	108	12	12	7	28	13	180	2.7
80+	91	7	5	5	19	7	135	2.0
Mean	34.0	34.1	33.6	34.5	38.3	45.3	34.6	. .
Work setting of main job								
Private rooms	12,845	1,355	1,061	1,057	1,852	293	18,462	90.0
Non-residential facility	388	40	27	15	33	17	521	2.5
Aboriginal health service	52	5	9	5	5	57	134	0.7
Acute care hospital	532	77	58	42	53	23	784	3.8
Other residential facility	24	4	0	0	0	2	29	0.1
Educational institution	179	17	6	4	0	2	208	1.0
Defence forces	87	13	6	1	5	2	115	0.6
Other	205	14	4	8	7	25	263	1.3
Country of initial qualification								
Males								
Australia	6,874	781	623	621	1,171	218	10,289	74.2
New Zealand	140	20	11	13	16	7	205	1.5
United Kingdom/Ireland	688	115	125	130	179	55	1,290	9.3
Asia	1,021	124	20	43	58	2	1,267	9.1
Other countries	625	55	26	33	55	19	814	5.9
Females								
Australia	3,904	365	309	236	403	94	5,312	79.9
New Zealand	67	0	3	4	7	6	87	1.3
United Kingdom/Ireland	313	22	45	39	51	19	489	7.4
Asia	391	29	5	5	7	0	436	6.6
Other countries	289	13	7	9	8	0	326	4.9
Australian residency status								
Males								
Australian citizen	8,660	1,009	746	767	1,357	261	12,800	92.3
Permanent resident	632	75	55	66	109	26	962	6.9
Not permanent resident	56	11	3	7	13	13	103	0.7
Females								
Australian citizen	4,552	397	331	259	441	108	6,088	91.5
Permanent resident	375	20	34	32	29	11	501	7.5
Not permanent resident	37	12	3	3	7	0	62	0.9
Males	9,347	1,095	804	840	1,479	300	13,865	67.6
Females	4,965	429	368	293	476	119	6,651	32.4
Total	**14,312**	**1,524**	**1,172**	**1,133**	**1,956**	**419**	**20,516**	**100.0**

Table 11: Primary care practitioners: sex, qualification and main field of practice, States and Territories, 1996

Qualification/ main field of practice	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
VRGP									
General practice	3,942	2,879	1,974	939	1,049	345	186	76	11,390
Special interest area	354	94	74	153	46	8	13	15	758
Total	4,297	2,973	2,048	1,092	1,095	354	199	91	12,148
RACGP trainee									
General practice	157	91	114	36	67	6	7	12	488
Special interest area	8	0	2	8	0	0	0	4	23
Total	165	91	115	44	67	6	7	16	511
OMP									
General practice	324	209	169	101	60	16	13	3	894
Special interest area	147	66	26	22	33	2	11	4	312
Total	471	274	195	123	93	18	24	7	1,206
Total									
General practice	4,423	3,178	2,256	1,076	1,176	367	206	91	12,773
Special interest area	510	160	102	184	79	11	24	24	1,092
Total	*4,932*	*3,338*	*2,358*	*1,259*	*1,255*	*377*	*230*	*115*	*13,865*
					Females				
VRGP									
General practice	1,558	1,192	870	424	451	159	129	51	4,834
Special interest area	178	65	54	81	34	5	7	11	434
Total	1,736	1,257	924	505	485	164	136	61	5,269
RACGP trainee									
General practice	230	171	137	42	42	17	19	16	675
Special interest area	12	11	8	0	0	0	0	6	37
Total	242	182	146	42	42	17	19	22	712
OMP									
General practice	190	109	68	47	31	4	4	12	465
Special interest area	84	45	25	31	12	0	5	2	205
Total	274	155	93	78	43	4	9	14	670
Total									
General practice	1,978	1,472	1,076	513	524	180	152	79	5,975
Special interest area	274	121	87	112	46	5	12	18	676
Total	*2,252*	*1,593*	*1,163*	*626*	*569*	*185*	*165*	*98*	*6,651*
					Persons				
VRGP									
General practice	5,501	4,071	2,844	1,363	1,500	504	315	126	16,224
Special interest area	532	159	128	234	80	13	20	26	1,192
Total	6,033	4,230	2,972	1,597	1,580	517	335	152	17,417
RACGP trainee									
General practice	387	262	251	78	108	23	26	28	1,163
Special interest area	20	11	10	8	0	0	0	10	60
Total	407	272	261	86	108	23	26	39	1,223
OMP									
General practice	513	318	237	148	91	20	17	15	1,360
Special interest area	231	111	50	54	45	2	16	6	516
Total	745	429	287	202	136	22	34	22	1,876
Total									
General practice	6,401	4,650	3,332	1,589	1,700	547	358	170	18,747
Special interest area	784	281	189	296	124	16	37	43	1,769
Total	**7,185**	**4,931**	**3,521**	**1,885**	**1,824**	**563**	**395**	**212**	**20,516**

Note: A further dissection of VRGPs, RACGP trainees and OMPs is available in Tables 45–51 on the Internet at *http//www.aihw.gov.au.*

3 Specialists and specialists-in-training

There are several major influences on workforce planning for the medical specialties.

- Rapid change in demand for, and utilisation of, particular specialist services is frequently generated by advances in research and technology in the fields of medical equipment, drugs, diagnostic medicine, radiation and other treatments, patient prostheses and evidence-based medicine.
- Such changes may greatly improve labour productivity, but they also increase pressure for specialisation into sub-specialty areas.
- Ageing of the population and changing disease patterns—for example, the declining death rate for coronary heart disease since the 1960s, declining death from injury, and increasing deaths from many cancers and from suicide (AIHW 1998, pp. 75–114).
- There are inequities in the distribution of specialists across Australia. However the effects of these have been reduced by changes in the delivery of speciality services including increasing use of specialist outreach and telemedicine programs.
- There are much lower proportions of female medical graduates entering most disciplines of specialty practice compared with the proportion entering general practice. This means access to female specialists may be difficult for female patients who prefer consultation with and treatment by a female practitioner.
- Lower average hours worked and lower workforce participation by a rising proportion of female specialists increases the overall workforce requirement and therefore the numbers of medical graduates in specialist training. Hours worked and retirement patterns of males are also changing.
- There has been continuing change in the funding and delivery of health services. There has been a major shift during the last 20 years from institutional care to community care. The average stay in hospitals has shortened considerably, and the proportion of same-day separations increased from 30.6% in 1991–92 to 42.4% in 1995–96 (AIHW 1998, pp. 198–205).
- Public health campaigns during the 1990s have heightened population awareness for reducing the risk of mortality from many conditions by lifestyle changes, medical screening and early intervention, particularly for cancers. Thus the numbers of people presenting for specialist treatment earlier in disease onset have increased and significant improvements in survival from some cancers have been recorded in Australia (AIHW 1998, pp. 89–90).
- Shortages of medical specialists in any discipline may lead to the following undesirable outcomes for patients: reduced access to services; excessively long waiting times for consultation and treatment; higher charges for services rendered; and increased risk of medical misadventure if treatment is provided by a doctor whose judgement is impaired by fatigue from excessively long hours worked due to the shortage of practitioners (Olsen & Ambrogetti 1998; Holmes 1998).
- In contrast, too great a supply of specialists in a discipline in a particular geographic area may lead to insufficient patients for practitioners to adequately maintain skills, endangering patient care. Over-servicing of patients may also occur—incurring unwarranted costs to consumers, government and health insurance funds, and, in some circumstances, incurring unnecessary treatment risks to patients.

These influences are complex and, in Australia, workforce planning for the medical specialties has been addressed through a systematic specialty-by-specialty work program of

the Australian Medical Workforce Advisory Committee (AMWAC), assisted by the specialist colleges and the Australian Institute of Health and Welfare. The AMWAC work program and findings of published reports can be found at the AMWAC Internet web-site at *http://amwac.health.nsw.gov.au*.

3.1 Specialists

Geographic distribution

- There were 85.5 medical specialists per 100,000 population in Australia—up from 82.5 the previous year. Across the States and Territories the rates varied from 101.3 per 100,000 in South Australia and 94.2 in the Australian Capital Territory to 72.1 in Queensland and 69.6 in Tasmania.
- The main job of 80.0% of specialists was located in a capital city, with a further 7.4% in other metropolitan areas and 12.7% in rural and remote areas. Only 50 specialists had a main job in a remote area.
- Of the specialties, psychiatry (10.5) and anaesthesia (10.0) had the highest number of specialists practising per 100,000 population.

Proportion of female practitioners

- There were 15,744 specialists, of whom 13,397 (85.1%) were male and 2,347 female (14.9%).
- 48.2% of the female specialists worked in psychiatry (497), anaesthesia (338), paediatric medicine (149) and diagnostic radiology (147).

Hours worked

- Male specialists generally worked longer hours than those of their female counterparts, with 62.0% of males working 50 hours or more per week compared with 33.7% of females.
- More than 25% of practitioners in the following specialties reported working more than 65 hours per week: cardiology, medical oncology, thoracic medicine, intensive care, obstetrics and gynaecology and all of the surgical specialties except for otolaryngology.
- The specialties where more than 10% of the practitioners reported working more than 80 hours per week were paediatric surgery, urology, cardiothoracic surgery, plastic surgery, general surgery and vascular surgery

Outreach services

- 1.7% of metropolitan specialists reported that they practised in a rural or remote area in a second or third job.

Work setting of employment

- 56.3% of specialists had their main job in private rooms and 34.6% had their main job in an acute care hospital.

Table 12: Specialists: main specialty of practice, States and Territories, 1996

Main specialty of practice	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Internal medicine	*1,453*	*1,092*	*594*	*374*	*445*	*82*	*76*	*36*	*4,151*
Cardiology	219	126	76	28	57	11	11	1	531
Clinical genetics	0	3	0	6	0	0	0	0	9
Clinical haematology	56	28	27	8	19	2	4	0	145
Clinical immunology	51	20	8	8	12	1	3	0	104
Clinical pharmacology	6	3	0	2	7	0	0	0	18
Endocrinology	75	72	22	18	25	7	4	0	224
Gastroenterology	132	96	54	36	48	5	10	0	381
General medicine	135	146	111	47	61	19	12	10	542
Geriatrics	74	56	19	19	20	1	3	2	194
Infectious diseases	23	45	12	8	10	1	0	4	105
Medical oncology	45	48	11	18	9	3	4	0	138
Neurology	108	76	31	31	22	5	3	0	275
Nuclear medicine	58	26	14	14	8	4	4	0	128
Paediatric medicine	242	182	132	63	67	17	11	16	729
Renal medicine	63	43	20	12	23	1	1	2	166
Rheumatology	70	63	20	22	28	1	3	0	206
Thoracic medicine	95	58	36	33	28	3	4	0	256
Pathology	*220*	*159*	*117*	*104*	*88*	*15*	*18*	*9*	*729*
General pathology	42	20	18	10	8	3	5	3	109
Anatomical pathology	96	75	64	59	58	6	7	3	367
Clinical chemistry	13	16	12	11	10	0	1	0	63
Cytopathology	14	15	0	2	0	0	2	0	32
Forensic pathology	12	5	1	4	2	0	0	0	24
Haematology	16	8	11	8	8	4	0	0	55
Immunology	6	1	1	2	0	0	0	0	10
Microbiology	22	19	9	8	2	2	3	2	67
Surgery	*789*	*782*	*498*	*251*	*254*	*65*	*49*	*18*	*2,708*
General surgery	256	273	178	71	88	22	12	9	911
Cardiothoracic surgery	22	39	19	6	4	3	5	0	97
Neurosurgery	34	27	15	8	10	4	4	0	102
Orthopaedic surgery	188	159	121	79	78	14	13	3	655
Otolaryngology (ENT)	109	90	51	34	14	6	6	7	317
Paediatric surgery	16	25	12	6	8	1	1	0	70
Plastic surgery	62	77	33	24	16	4	4	0	220
Urology	60	54	41	12	26	7	4	0	204
Vascular surgery	41	37	27	10	12	5	0	0	133
Other specialties	*2,918*	*2,205*	*1,223*	*731*	*709*	*168*	*148*	*55*	*8,157*
Anaesthesia	588	483	307	184	170	48	29	18	1,827
Dermatology	112	60	44	23	18	4	3	1	265
Diagnostic radiology	358	257	169	119	96	28	27	4	1,058
Emergency medicine	98	67	36	26	10	4	3	0	244
Intensive care	115	49	28	30	29	1	5	1	260
Medical administration	22	15	14	6	0	0	2	0	58
Obstetrics & gynaecology	312	264	173	92	82	20	22	9	974
Occupational medicine	141	38	5	6	10	1	1	0	203
Ophthalmology	222	197	120	64	67	13	7	3	693
Psychiatry	647	572	274	153	199	44	29	10	1,928
Public health medicine	23	9	4	0	4	2	1	6	49
Radiation oncology	40	47	25	10	9	3	4	0	138
Rehabilitation medicine	89	45	9	10	14	0	5	1	175
Other	150	102	16	8	0	1	10	0	287
Total	**5,381**	**4,238**	**2,431**	**1,461**	**1,495**	**330**	**291**	**117**	**15,744**

Table 13: All medical specialists[(a)] practising in each specialty: sex, Australia, 1996

	Main field of practice		Second field of practice		Third field of practice		Total		
Specialty of practice	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Persons**
Internal medicine	*3,577*	*574*	*973*	*122*	*165*	*12*	*4,715*	*707*	*5,422*
Cardiology	498	34	61	1	14	2	573	37	609
Clinical genetics	9	0	3	. .	. .	. .	12	0	12
Clinical haematology	118	27	50	6	6	. .	174	33	207
Clinical immunology	92	12	21	6	7	. .	120	17	138
Clinical pharmacology	13	5	21	1	10	. .	44	6	50
Endocrinology	183	41	59	7	10	. .	252	48	300
Gastroenterology	351	30	55	1	10	. .	417	31	448
General medicine	496	47	394	50	58	5	948	102	1,050
Geriatrics	146	48	31	5	5	. .	181	53	234
Infectious diseases	79	26	29	2	5	1	112	29	141
Medical oncology	121	17	45	5	15	2	181	25	206
Neurology	250	25	17	1	6	. .	273	26	299
Nuclear medicine	118	11	56	6	1	1	175	18	193
Paediatric medicine	581	149	46	13	2	. .	628	162	790
Renal medicine	136	31	29	6	7	. .	172	37	209
Rheumatology	166	40	20	6	4	. .	190	46	236
Thoracic medicine	223	33	36	4	5	. .	264	37	301
Pathology	*544*	*185*	*237*	*88*	*52*	*8*	*834*	*281*	*1,115*
General pathology	95	15	9	2	13	3	118	21	138
Anatomical pathology	255	112	22	8	1	. .	278	120	398
Clinical chemistry	59	4	8	2	4	. .	71	6	77
Cytopathology	20	12	90	50	. .	. .	110	62	172
Forensic pathology	20	4	6	. .	3	. .	28	4	33
Haematology	43	12	59	16	20	4	122	33	155
Immunology	7	3	18	4	5	1	31	8	39
Microbiology	46	21	24	6	5	. .	75	27	102
Surgery	*2,613*	*95*	*173*	*8*	*42*	*2*	*2,827*	*106*	*2,933*
General surgery	880	31	63	4	11	1	955	36	990
Cardiothoracic surgery	93	4	9	. .	2	. .	104	4	108
Neurosurgery	98	4	3	. .	. .	. .	101	4	106
Orthopaedic surgery	645	10	16	. .	2	1	663	11	674
Otolaryngology (ENT)	307	10	5	. .	3	. .	316	10	326
Paediatric surgery	62	9	12	. .	4	. .	78	9	86
Plastic surgery	201	19	25	1	5	. .	231	20	251
Urology	198	6	22	. .	9	. .	229	6	234
Vascular surgery	129	4	17	3	5	. .	152	7	159
Other specialties	*6,663*	*1,494*	*565*	*80*	*108*	*14*	*7,336*	*1,587*	*8,923*
Anaesthesia	1,489	338	63	5	4	1	1,555	344	1,900
Dermatology	186	79	4	. .	1	. .	191	79	269
Diagnostic radiology	911	147	37	3	3	. .	951	151	1,102
Emergency medicine	198	46	20	. .	2	3	220	49	269
Intensive care	228	31	152	12	14	. .	394	44	438
Medical administration	50	8	64	9	22	1	136	18	154
Obstetrics & gynaecology	846	128	20	7	2	1	868	137	1,005
Occupational medicine	189	13	20	1	1	. .	210	15	225
Ophthalmology	621	72	1	1	. .	. .	622	73	695
Psychiatry	1,431	497	13	1	. .	1	1,444	500	1,943
Public health medicine	36	13	25	8	12	2	73	23	96
Radiation oncology	111	27	2	. .	. .	. .	112	27	140
Rehabilitation medicine	146	29	37	11	14	1	197	42	239
Other	222	65	108	19	32	3	362	86	448
Total	**13,397**	**2,347**	**1,947**	**298**	**367**	**36**	**15,712**	**2,681**	**18,393**

(a) Includes all specialists practising in each specialty as their main field of practice, those for whom the specialty is their second field of practice, and those for whom the specialty is a third field of practice only.

Table 14: Specialists: total hours worked per week, age and sex, Australia, 1996

	Age (years)							
Hours worked	**< 35**	**35–44**	**45–54**	**55–64**	**65–74**	**75+**	**Total**	**%**
				Males				
1–19	6	34	46	107	331	117	641	4.8
20–34	20	139	143	234	346	83	964	7.2
35–49	156	1,033	1,099	797	363	32	3,481	26.0
50–64	222	1,964	2,241	1,166	190	15	5,798	43.3
65–79	58	649	725	292	38	4	1,766	13.2
80+	19	291	283	134	20	0	747	5.6
Total	*482*	*4,110*	*4,536*	*2,729*	*1,288*	*251*	*13,397*	*100.0*
				Females				
1–19	18	92	37	29	45	10	230	9.8
20–34	50	278	114	46	27	6	521	22.2
35–49	83	344	245	102	26	4	805	34.3
50–64	54	273	197	82	6	0	612	26.1
65–79	4	55	28	17	2	2	108	4.6
80+	10	39	20	3	0	0	72	3.1
Total	*219*	*1,080*	*641*	*279*	*106*	*22*	*2,347*	*100.0*
				Persons				
1–19	23	126	82	135	376	127	870	5.5
20–34	70	417	257	280	373	89	1,485	9.4
35–49	240	1,378	1,344	899	389	36	4,285	27.2
50–64	276	2,236	2,438	1,248	197	15	6,410	40.7
65–79	63	704	753	309	39	6	1,874	11.9
80+	29	329	303	137	20	0	819	5.2
Total	**701**	**5,190**	**5,177**	**3,008**	**1,394**	**274**	**15,744**	**100.0**

3.2 Specialists-in-training

There were an estimated 4,451 specialists-in-training enumerated in the AIHW medical labour force survey in 1996. However low response to the survey by these doctors creates significant error in producing this estimate.

The Commonwealth Government's Medical Training Review Panel collects data from the specialist medical colleges on the numbers of training positions and trainees. In 1997 it reported that there were 3,995 clinician specialists-in-training in advanced training positions and 757 in basic training positions (Department of Health and Family Services 1997). These are the official figures on the 'true' numbers of specialists-in-training.

The AIHW survey showed that:

- the specialties with the highest numbers were psychiatry (552), anaesthesia (552), paediatric medicine (402), emergency medicine (365) and general medicine (333). The 365 trainees in emergency medicine exceeded the 269 specialists who reported that they practised emergency medicine, while at the other end of the scale some specialties had very low percentages of trainees to specialists—particularly vascular surgery (4.5%), cytopathology (6.3%), clinical chemistry (6.3%) and clinical immunology (8.7%). The relatively high number of emergency medicine trainees reflects emergency medicine being a relatively new and rapidly growing specialty; the numbers of trainees are expected to reduce from 668 in 2000 to 177 in 2010 (AMWAC 1997).
- 80.3% of specialists-in-training were younger than 35 years, with a further 17.4% aged 35–44 years.
- 32.8% of specialists-in-training younger than 35 years were female. This proportion was considerably less than the 42.1% of total medical practitioners in the same age group who were female.
- 28% of the specialists-in-training in 1996 expected to complete training in that year or in 1997, and a further 22% expected to finish in 1998.

Table 15: Specialists-in-training: total hours worked per week, age and sex, Australia, 1996

Total hours worked per week	Age (years)			Total	% of sex	% of persons
	Under 35	35–44	45 and over			
			Males			
1–19	10	4	0	14	0.5	32.4
20–34	25	9	5	39	1.3	29.2
40–49	552	169	17	738	24.6	62.8
50–64	1,208	261	33	1,503	50.1	68.8
65–79	422	65	8	494	16.5	79.4
80 and over	181	29	0	210	7.0	71.8
Total	*2,399*	*536*	*63*	*2,998*	*100.0*	*67.4*
			Females			
1–19	19	9	1	29	2.0	67.6
20–34	50	38	6	93	6.4	70.8
40–49	336	84	18	437	30.1	37.2
50–64	597	71	14	682	47.0	31.2
65–79	105	20	3	128	8.8	20.6
80 and over	67	15	1	83	5.7	28.2
Total	*1,173*	*237*	*43*	*1,453*	*100.0*	*32.6*
			Persons			
1–19	29	13	1	43	1.0	100.0
20–34	74	47	11	132	3.0	100.0
40–49	888	253	34	1,175	26.4	100.0
50–64	1,805	333	48	2,185	49.1	100.0
65–79	527	85	10	623	14.0	100.0
80 and over	248	43	1	293	6.6	100.0
Total	**3,572**	**774**	**106**	**4,451**	**100.0**	**100.0**

Table 16: Specialists-in-training: specialty of training, States and Territories, 1996

Specialty of training	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Internal medicine	*449*	*396*	*219*	*100*	*117*	*26*	*18*	*8*	*1,332*
Cardiology	38	30	15	4	11	4	1	0	103
Clinical haematology	12	11	7	6	1	0	1	0	38
Clinical immunology	5	0	1	0	2	0	1	0	9
Clinical pharmacology	3	2	1	0	2	0	0	0	7
Endocrinology	15	9	7	0	4	3	1	0	39
Gastroenterology	31	18	7	8	6	0	1	0	70
General medicine	75	109	88	20	25	16	0	0	333
Geriatrics	18	12	3	2	4	2	1	0	42
Infectious diseases	13	18	3	2	0	0	0	0	36
Medical oncology	22	22	8	4	4	2	0	0	61
Neurology	15	12	0	2	0	0	0	0	29
Nuclear medicine	12	7	3	2	2	0	0	0	26
Paediatric medicine	148	96	67	37	41	0	7	7	402
Renal medicine	15	22	1	6	4	0	0	1	49
Rheumatology	7	10	0	2	5	0	1	0	27
Thoracic medicine	20	18	10	4	7	0	1	0	60
Pathology	*40*	*38*	*19*	*14*	*13*	*8*	*1*	*0*	*133*
General pathology	6	6	0	0	0	1	0	0	13
Anatomical pathology	22	19	13	10	8	5	1	0	80
Clinical chemistry	1	0	3	0	0	0	0	0	4
Cytopathology	0	0	0	0	2	0	0	0	2
Haematology	5	9	0	0	0	1	0	0	15
Immunology	1	1	0	0	0	0	0	0	3
Microbiology	4	3	3	4	3	0	0	0	16
Surgery	*160*	*188*	*119*	*55*	*57*	*14*	*7*	*1*	*601*
General surgery	56	90	50	18	22	8	1	1	248
Cardiothoracic surgery	12	11	4	2	2	1	0	0	32
Neurosurgery	12	9	4	4	4	0	1	0	35
Orthopaedic surgery	43	37	34	12	12	2	3	0	142
Otolaryngology (ENT)	11	14	8	2	8	0	0	0	43
Paediatric surgery	5	6	1	0	4	0	0	0	16
Plastic surgery	8	11	9	8	2	2	0	0	41
Urology	10	9	8	8	2	0	1	0	38
Vascular surgery	2	2	0	0	2	0	0	0	6
Other specialties	*872*	*671*	*389*	*178*	*192*	*41*	*27*	*16*	*2,385*
Anaesthesia	181	164	102	36	49	11	5	1	552
Dermatology	24	15	11	4	5	0	0	0	60
Diagnostic radiology	49	57	31	8	17	4	7	0	173
Emergency medicine	110	116	70	40	16	5	7	0	365
Intensive care	22	16	15	4	7	2	3	0	69
Medical administration	6	0	3	0	0	1	0	0	10
Obstetrics & gynaecology	83	57	46	24	31	6	1	5	254
Occupational medicine	52	5	3	8	3	0	0	0	71
Ophthalmology	48	32	7	8	5	0	0	0	100
Psychiatry	204	156	91	38	46	9	4	3	552
Public health medicine	5	3	3	0	1	0	0	3	15
Radiation oncology	29	15	3	4	3	0	0	0	54
Rehabilitation medicine	32	17	0	0	5	1	0	0	56
Other	26	16	5	2	2	0	0	4	55
Total	**1,521**	**1,294**	**746**	**346**	**378**	**88**	**53**	**25**	**4,451**

4 Hospital non-specialists

The hospital non-specialist workforce makes a major contribution to the provision of medical services in hospitals. This workforce includes doctors in training as interns and resident medical officers (RMOs), and career medical officers (CMOs), hospital medical officers (HMOs) and other salaried hospital doctors who are not specialists or in recognised training programs to become specialists.

Data monitoring is particularly important for three current workforce issues concerning hospital non-specialists:

- shortages of hospital non-specialists;
- the management of workforce change away from a culture of excessive working hours;
- the change in workforce numbers arising from restrictions introduced by the Commonwealth Government in 1996 to access to rendering of Medicare services for both new hospital non-specialists and overseas medical graduates entering Australia for temporary or permanent employment. Under these restrictions, only Australian doctors accepted into a recognised general practice or specialist training program, and overseas graduates with a recognised postgraduate medical qualification, are eligible to apply to the Health Insurance Commission for recognition to bill for Medicare services. The effect of these restrictions was expected to make continued hospital employment more attractive as a career path for some Australian graduates, and the principal avenue of employment for most temporary resident overseas graduates.

The Australian Health Ministers' Advisory Council has acknowledged the need for a detailed workforce planning analysis of the hospital non-specialist workforce, and the AIHW will be assisting the Australian Medical Workforce Advisory Committee to conduct this analysis in 1998–99.

In this report, the 1996 data highlight characteristics of the hospital non-specialist workforce immediately before the changes in Medicare provider access and the safe working hours campaign for junior hospital doctors which was initiated by the Australian Medical Association. Given a significantly lower response to the AIHW labour force survey by doctors younger than 35 years, the workforce estimates for hospital non-specialists and specialists-in-training are subject to significantly greater estimation error than for other sectors of the medical workforce and should be interpreted with care.

Composition of the hospital non-specialist workforce

- There were 4,630 hospital non-specialists in 1996—10.2% of the total clinician workforce.
- 2,008 (43.4%) were females.
- 3,537 (76.4%) were interns or RMOs, and the remaining 1,093 (23.6%) were CMOs, HMOs and other salaried non-specialists.
- 94.8% of interns and RMOs and 85.2% of other hospital non-specialists were employed in the public sector.

Geographic distribution

- The numbers of hospital non-specialists per 100,000 population varied among the States and Territories, from 31.9 per 100,000 population in the Northern Territory to 18.1 in Western Australia.

- The number of interns and RMOs varied from a high of 24.2 per 100,000 population in New South Wales to a low of 12.6 in Western Australia. The other States and Territories all had 16–20 per 100,000 population.
- CMOs, HMOs and other salaried non-specialists ranged from 14.6 per 100,000 population in the Australian Capital Territory and 13.2 in the Northern Territory to 2.4 in Victoria.
- The numbers of hospital non-specialists per 100,000 population varied among regions from 34.4 per 100,000 population in other metropolitan centres and 33.3 in large rural centres down to 3.2 in other rural areas and 12.2 in remote areas. This regional variation mainly arises from the location of medical training hospitals with large numbers of interns and RMOs in the large centres.

Age distribution

- 15.2% of male and 20.0% of female interns and RMOs were younger than 25 years.
- Only 7.4% of male and 9.4% of female interns and RMOs were aged 35 years or more.
- 41.8% of CMOs, HMOs and other salaried non-specialists were younger than 35 years, 29.5% were 35–44 years, 15.6% were 45–54 years, and 13.1% were older than 55 years.

Hours worked

- Only 3.3% of male and 5.5% of female interns and RMOs worked fewer than 35 hours per week.
- 15.8% of male and 14.8% of female interns and RMOs worked 65 hours or more per week.
- 5.3% of male and 4.9% of female interns and RMOs worked 80 hours or more per week.
- 11.4% of male and 37.3% of female CMOs and HMOs worked less than 35 hours per week.
- 12.1% of male and 9.6% of female CMOs and HMOs worked 65 hours or more per week.
- 4.0% of male and 4.4% of female CMOs and HMOs worked 80 hours or more per week.

Table 17: Hospital non-specialists: classification, age and sex, States and Territories, 1996

Classification/age	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
Intern/RMO									
<25	119	43	71	11	24	20	0	0	288
25–34	611	348	264	80	103	23	24	12	1,466
35–44	51	19	27	4	8	1	3	3	117
45+	10	5	7	2	0	0	0	0	24
Total	*792*	*416*	*370*	*97*	*135*	*44*	*27*	*15*	*1,896*
Other[(a)]									
<35	126	19	86	28	36	7	13	6	320
35–44	83	32	45	11	23	4	8	7	214
45–54	31	11	32	13	9	0	3	4	103
55+	27	5	26	16	7	3	4	1	89
Total	*267*	*68*	*187*	*67*	*75*	*14*	*29*	*19*	*726*
Total									
<25	123	43	71	11	24	20	0	0	292
25–34	734	368	350	108	138	30	38	18	1,783
35–44	134	51	72	15	31	6	11	10	331
45–54	41	16	38	15	9	0	3	4	127
55+	27	5	26	16	7	3	4	1	89
Total	**1,059**	**484**	**557**	**164**	**210**	**58**	**56**	**34**	**2,622**
					Females				
Intern/RMO									
<25	136	52	55	24	32	29	0	0	328
25–34	505	247	201	88	64	18	19	17	1,158
35–54	58	10	24	10	15	1	7	3	129
45+	12	5	7	2	0	0	0	0	26
Total	*710*	*314*	*287*	*124*	*111*	*48*	*26*	*20*	*1,642*
Other[(a)]									
<35	52	7	39	15	15	8	3	0	137
35–44	32	15	30	13	11	0	5	2	108
45–54	17	14	13	2	15	0	5	2	68
55+	14	7	14	4	9	0	3	2	54
Total	*115*	*43*	*96*	*34*	*49*	*8*	*16*	*5*	*367*
Total									
<25	136	52	55	24	32	29	0	0	328
25–34	556	254	240	103	78	25	22	17	1,295
35–44	90	25	55	23	27	1	12	5	237
45–54	29	19	20	4	15	0	5	2	94
55+	14	7	14	4	9	0	3	2	54
Total	**825**	**357**	**383**	**159**	**161**	**56**	**42**	**26**	**2,008**
					Persons				
Intern/RMO									
<25	254	95	126	35	57	49	0	0	616
25–34	1,116	595	466	168	166	41	43	29	2,624
35–44	109	29	52	14	24	3	10	6	246
45+	22	10	14	4	0	0	0	0	51
Total	*1,502*	*730*	*657*	*222*	*246*	*92*	*53*	*35*	*3,537*
Other[(a)]									
<35	178	26	124	43	50	15	16	6	457
35–44	115	47	75	24	34	4	14	9	322
45–54	47	26	44	15	24	0	8	6	170
55+	41	12	40	20	16	3	7	3	143
Total	*382*	*111*	*284*	*101*	*125*	*21*	*45*	*24*	*1,093*
Total									
<25	258	95	126	35	57	49	0	0	620
25–34	1,290	621	590	210	216	55	59	35	3,078
35–44	225	76	127	38	58	7	23	15	568
45–54	70	36	58	19	24	0	8	6	221
55+	41	12	40	20	16	3	7	3	143
Total	**1,884**	**841**	**941**	**323**	**371**	**114**	**98**	**59**	**4,630**

(a) Mainly CMOs, HMOs and other salaried non-specialists.

Table 18: Hospital non-specialists: classification and sector of employment, States and Territories, 1996

Classification/ sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Intern/RMO									
Private sector	62	24	38	11	6	38	1	2	183
Public sector	1,441	705	619	211	240	54	51	33	3,354
All sectors	*1,502*	*730*	*657*	*222*	*246*	*92*	*53*	*35*	*3,537*
Other[(a)]									
Private sector	57	19	48	12	10	13	3	0	162
Public sector	324	92	235	89	115	9	42	24	931
All sectors	*382*	*111*	*284*	*101*	*125*	*21*	*45*	*24*	*1,093*
Total									
Private sector	119	43	87	22	16	51	4	2	345
Public sector	1,765	798	854	300	355	63	94	57	4,286
All sectors	**1,884**	**841**	**941**	**323**	**371**	**114**	**98**	**59**	**4,630**

(a) Mainly CMOs, HMOs and other salaried non-specialists.

Table 19: Interns and RMOs: total hours worked per week and sex, States and Territories, 1996

Total hours worked per week	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
0–19	14	0	3	0	0	0	0	0	16
20–34	24	17	1	0	4	0	0	0	47
35–49	168	93	79	36	21	15	0	9	421
50–64	446	232	259	45	90	23	15	3	1,112
65–79	95	55	22	14	4	3	4	1	199
80+	46	19	6	2	15	3	8	1	101
Total	*792*	*416*	*370*	*97*	*135*	*44*	*27*	*15*	*1,896*
					Females				
0–19	24	5	2	2	2	0	0	0	35
20–34	26	14	4	2	9	0	0	0	55
35–49	183	96	83	41	18	13	0	0	434
50–64	359	143	186	60	67	26	15	18	874
65–79	68	47	9	17	7	9	4	2	162
80+	50	10	3	2	9	0	6	0	81
Total	*710*	*314*	*287*	*124*	*111*	*48*	*26*	*20*	*1,642*
					Persons				
0–19	38	5	5	2	2	0	0	0	52
20–34	50	31	6	2	13	0	0	0	102
35–49	351	189	161	77	39	28	0	9	854
50–64	804	374	445	105	157	49	30	21	1,986
65–79	163	102	31	31	11	12	8	3	361
80+	96	29	9	4	24	3	15	1	182
Total	**1,502**	**730**	**657**	**222**	**246**	**92**	**53**	**35**	**3,537**

Table 20: Other hospital medical practitioners:[(a)] total hours worked per week and sex, States and Territories, 1996

Total hours worked per week	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
					Males				
0–19	12	3	6	0	2	0	2	0	25
20–34	24	7	9	6	7	2	2	2	58
35–49	76	25	64	37	37	6	12	5	261
50–64	111	29	93	17	20	3	14	8	295
65–79	30	3	12	6	3	0	0	5	59
80+	15	1	4	0	6	3	0	0	29
Total	*267*	*68*	*187*	*67*	*75*	*14*	*29*	*19*	*726*
					Females				
0–19	20	6	18	5	8	2	1	0	61
20–34	26	13	15	2	8	4	5	2	76
35–49	37	13	27	21	27	0	8	4	136
50–64	18	5	24	7	2	2	1	0	59
65–79	6	3	7	0	3	0	0	0	19
80+	7	3	4	0	2	0	0	0	16
Total	*115*	*43*	*96*	*34*	*49*	*8*	*16*	*5*	*367*
					Persons				
0–19	33	9	25	5	10	2	3	0	86
20–34	50	20	24	9	15	5	7	3	134
35–49	112	38	91	57	64	6	20	8	397
50–64	129	34	117	24	22	5	15	8	354
65–79	36	5	18	6	7	0	0	5	77
80+	22	4	8	0	7	3	0	0	45
Total	**382**	**111**	**284**	**101**	**125**	**21**	**45**	**24**	**1,093**

(a) Mainly CMOs, HMOs and other salaried non-specialists.

5 Medical workforce in hospitals

Hospitals employed 230,847 people in 1996—43.0% of the total health industry workforce. In 1995–96, total government and non-government expenditure on public acute care hospitals and private hospitals was $11.3 billion and $3.2 billion respectively—37.1% of recurrent health expenditure in Australia (AIHW 1998, pp. 167, 182). Hospitals provided treatment to 5.2 million admitted patients, who spent 23.3 million patient days in hospital (AIHW 1997). Furthermore, according to the 1995 National Health Survey, 497,000 people made a visit to a casualty, emergency or outpatients department in the two weeks before interview (ABS 1997).

Thus hospitals, and their medical workforce, make a considerable contribution to the provision of health services in Australia. This chapter contains data on the characteristics of the medical workforces employed in public and private hospitals in 1996, showing considerable differences among metropolitan, regional and small rural hospitals, and between public and private hospitals. It is of particular note that almost two-thirds of medical practitioners in private hospitals were specialists, and a further 20.1% were general practitioners. In contrast, specialists represented 46.3%, and general practitioners 10.7%, of doctors employed in public hospitals, whereas specialists-in-training and hospital non-specialists have a much larger workforce contribution. Much higher proportions of general practitioners were employed in both public and private hospitals in small rural areas, than in hospitals in metropolitan areas.

5.1 Public hospitals

The data in this section are on medical practitioners who indicated that their main, second or third job was in a public hospital in 1996. The features of public hospital medical practitioners included the following:

- 19,948 medical practitioners worked in public hospitals—41.8% of all practising medical practitioners.
- 88.9% of all specialists-in-training worked in a public hospital, as did 83.2% of hospital non-specialists, 58.7% of specialists, 10.4% of primary care practitioners and 32.5% of non-clinicians.
- 5,252 of these practitioners were female—26.3% of the public hospital medical workforce. This proportion was similar across most States and Territories but much lower in Tasmania (17.8%).
- The distribution of public hospital medical practitioners across the occupation of their main job differed by sex. Among males, 53.0% worked as specialists in their main job; 18.2% as specialists-in-training; 14.9% as hospital non-specialists; 10.6% as primary care practitioners; and the remaining 3.3% as non-clinicians, mainly as administrators (1.2%). The largest occupation group for females was hospital non-specialists (31.7%), followed by specialists (27.7%), specialists-in-training (24.4%), primary care practitioners (10.9%), and the remaining 5.3% as non-clinicians, mainly as administrators (1.6%) and researchers (1.0%).
- 85.1% of public hospital medical practitioners who worked as a clinician in their main hospital job were employed in metropolitan centres, along with 13.8% in rural areas and 1.1% in remote areas. By comparison, the distribution of the overall population was 71.1% living in metropolitan centres, 25.9% in rural areas and 3.0% in remote areas.

- Specialists represented 46.3% of medical practitioners working in public hospitals, but the medical occupation distribution varied by region. In capital city and other metropolitan centres, specialists comprised around 45% and hospital non-specialists and specialists-in-training comprised around 20% each of the public hospital workforce. In large rural centres, specialists made up 51.5%, and hospital non-specialists 23.3%, of the public hospital workforce with around 10% from each of the other clinical occupations. In small rural centres, primary care practitioners represented only 37.0% of the public hospital workforce, and in remote areas, primary care practitioners (41.5%) and hospital non-specialists (34.1%) were predominant.
- 83.2% of medical practitioners working in a public hospital had obtained their initial qualification in Australia, and the remainder had qualified in the United Kingdom or Ireland (6.3%), Asian countries (4.4%), New Zealand (3.0%), and other countries (3.2%).
- 1.8% of public hospital medical practitioners enumerated in the AIHW labour force survey were not Australian citizens or permanent residents of Australia. Of these, 31.0% had obtained their initial qualification in Australia and 30.1% had qualified in the United Kingdom or Ireland. However many of the temporary resident overseas-trained doctors employed in hospitals in 1996 would not have been enumerated in the survey because their registration was for a fixed term of less than a year, so they did not receive a registration renewal notice and survey form.

The AIHW also collects data on salaried medical officers in its national public hospital data collection. These are published in the *Australian Hospital Statistics* series of publications.

These data are for full-time equivalent (FTE) salaried medical officers and, in addition to hospital non-specialists, include specialists-in-training and salaried specialists such as medical administrators and emergency medicine, geriatric medicine, rehabilitation medicine and occupational medicine specialists employed in public hospitals.

From 1985–86 to 1995–96, FTE salaried medical officers increased by 40.8% in public and repatriation hospitals (excluding psychiatric hospitals)—rising from 9,300 to 13,095. Over the same period, patient separations increased by 47.1% from 2.5 million to 3.6 million and patient days declined from 16.9 million to 15.6 million, reflecting a 37.1% reduction in the average stay from 6.9 days to 4.3 days.

Table 21: All medical practitioners working in public hospitals: occupation of main job and region, Australia, 1996

Occupation of main job	Capital city	Other metro. centre	Large rural centre	Small rural centre	Other rural area	Remote	Total
Clinician	*14,824*	*1,509*	*1,297*	*610*	*732*	*214*	*19,186*
Primary care	901	175	155	237	576	91	2,134
Hospital non-specialist	2,923	378	316	87	71	75	3,850
Specialist	7,484	667	699	273	80	40	9,243
Specialist-in-training	3,515	289	127	13	5	9	3,958
Non-clinician	*614*	*45*	*59*	*30*	*9*	*5*	*761*
Administrator	200	17	26	16	3	5	266
Teacher/educator	39	3	0	2	0	0	44
Researcher	91	2	0	2	0	0	94
Public health physician	110	11	12	2	2	0	135
Occupational health physician	33	3	2	0	0	0	38
Other	142	9	19	9	5	0	185
Total	**15,438**	**1,554**	**1,356**	**640**	**741**	**219**	**19,948**
				(per cent)			
Clinician	*96.0*	*97.1*	*95.7*	*95.3*	*98.7*	*97.9*	*96.2*
Primary care	5.8	11.2	11.4	37.0	77.7	41.5	10.7
Hospital non-specialist	18.9	24.3	23.3	13.7	9.5	34.1	19.3
Specialist	48.5	42.9	51.5	42.6	10.8	18.1	46.3
Specialist-in-training	22.8	18.6	9.4	2.0	0.6	4.2	19.8
Non-clinician	*4.0*	*2.9*	*4.3*	*4.7*	*1.3*	*2.1*	*3.8*
Administrator	1.3	1.1	1.9	2.4	0.4	2.1	1.3
Teacher/educator	0.3	0.2	0.0	0.3	0.0	0.0	0.2
Researcher	0.6	0.1	0.0	0.2	0.0	0.0	0.5
Public health physician	0.7	0.7	0.9	0.2	0.2	0.0	0.7
Occupational health physician	0.2	0.2	0.1	0.0	0.0	0.0	0.2
Other	0.9	0.6	1.4	1.5	0.6	0.0	0.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

5.2 Private hospitals

The data in this section are on medical practitioners who indicated their main, second or third job was in a private hospital in 1996. The features of private hospital medical practitioners included the following:

- 4,904 medical practitioners worked in private hospitals, comprising 10.3% of all employed medical practitioners.
- 879 (17.9%) were female.
- 19.5% of all specialists worked in a private hospital, as did 4.8% of primary care practitioners, 8.2% of specialists-in-training, 7.4% of hospital non-specialists, 4.8% of primary care practitioners and 5.6% of non-clinicians.
- Similar to the public hospital workforce, the distribution of employment in private hospitals across main occupation differed by sex. Among males, 67.1% worked as specialists in their main job; 17.5% as primary care practitioners; 6.9% as specialists-in-training; 5.9% as hospital non-specialists; and the remaining 2.5% as non-clinicians. Specialists were the largest occupation group (42.4%) for females, followed by primary care practitioners (32.1%), hospital non-specialists (11.8%), specialists-in-training (10.1%), and non-clinicians (3.4%).
- 84.3% of private hospital medical practitioners working as clinicians in their main hospital job were employed in capital cities and other metropolitan centres; 13.4% were employed in large and small rural centres; and 2.3% were employed in other rural and remote areas. By comparison, the distribution of the overall population was 71.1% living in capital cities and other metropolitan centres, 12.5% in large and small rural areas and 16.3% in other rural and remote areas.
- Specialists represented 62.7% of medical practitioners working in private hospitals, but the medical occupation distribution varied by region. In capital cities, other metropolitan centres, large rural centres and small rural centres, specialists comprised 57.5% to 74.6% of the private hospital workforce. In other rural and remote areas, primary care practitioners were predominant in the private hospital medical workforce (65.4%).
- 82.6% of medical practitioners working in a private hospital had obtained their initial qualification in Australia, while the remainder had qualified in New Zealand (2.8%), the United Kingdom or Ireland (6.6%), Asian countries (4.2%), and other countries (3.8%).

Table 22: All medical practitioners working in private hospitals: occupation of main job and region, Australia, 1996

Occupation of main job	Capital city	Other metro centre	Large rural centre	Small rural centre	Other rural and remote areas	Total
Clinician	*3,597*	*425*	*443*	*198*	108	*4,771*
Primary care	650	110	84	71	72	987
Hospital non-specialist	275	37	17	5	9	343
Specialist	2,345	250	334	121	24	3,075
Specialist-in-training	327	27	8	2	3	367
Non-clinician	*107*	*10*	*5*	*9*	*2*	*132*
Administrator	26	3	3	0	0	33
Teacher/educator	2	2	0	1	0	5
Researcher	11	0	0	0	0	11
Public health physician	9	2	0	0	0	11
Occupational health physician	8	0	2	0	0	10
Other	51	4	0	7	2	64
Total	**3,704**	**435**	**448**	**207**	**110**	**4,904**
			(per cent)			
Clinician	*97.1*	*97.7*	*98.8*	*95.9*	*98.3*	*97.3*
Primary care	17.5	25.3	18.8	34.2	65.2	20.1
Hospital non-specialist	7.4	8.6	3.8	2.2	8.3	7.0
Specialist	63.3	57.5	74.5	58.7	21.9	62.7
Specialist-in-training	8.8	6.2	1.8	0.8	2.9	7.5
Non-clinician	*2.9*	*2.3*	*1.2*	*4.1*	*1.7*	*2.7*
Administrator	0.7	0.8	0.7	0.0	0.0	0.7
Teacher/educator	0.0	0.4	0.0	0.7	0.0	0.1
Researcher	0.3	0.0	0.0	0.0	0.0	0.2
Public health physician	0.3	0.4	0.0	0.0	0.0	0.2
Occupational health physician	0.2	0.0	0.4	0.0	0.0	0.2
Other	1.4	0.8	0.0	3.4	1.7	1.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

6 Rural and remote medical workforce

In 1996, there were 142.8 practising medical practitioners per 100,000 population in rural and remote areas compared with 308.2 per 100,000 population in metropolitan areas. Remedying this much lower level of medical workforce provision in rural and remote areas has been a planning priority for Commonwealth, State and local governments and medical professional bodies for many years and there are numerous incentive schemes to attract and retain doctors in rural areas. Furthermore, medical schools across Australia have introduced recruitment strategies to attract more rural and Indigenous students (AMWAC & AIHW 1998).

In this section, characteristics of the medical workforce are analysed geographically using the *Rural, Remote and Metropolitan Areas Classification* of the Departments of Health and Family Services and Primary Industries.

In 1996, there were 7,556 medical practitioners who worked in a rural or remote area in their main job—15.8% of all medical practitioners. This contrasts with the overall population distribution of 28.9% living in rural and remote areas in 1996. Features of these medical practitioners included the following.

Geographic distribution

- 2,914 (38.6%) worked in a large rural centre; 1,823 (24.1%) worked in a small rural centre; 2,215 (29.3%) worked in other rural areas; and the remaining 604 (8.0%) worked in remote areas.
- The 142.8 practising medical practitioners per 100,000 population in rural and remote areas varied across geographic region—266.0 per 100,000 population in large rural centres; 152.6 in small rural centres; 90.7 in other rural areas; and 108.8 in remote areas. It also varied across States and Territories, from a high of 166.4 in Tasmania to a low of 109.7 in South Australia. However, the high result for Tasmania is strongly influenced by the classification of Launceston as a large rural centre rather than a metropolitan centre.
- In 1996, there were 88.2 primary care practitioners per 100,000 population (1 practitioner per 1,134 population) in rural and remote areas, compared with 121.8 primary care practitioners per 100,000 population (1 practitioner per 821 population) in metropolitan centres.

Sex

- 1,794 medical practitioners in the rural medical workforce were female. This proportion (23.7%) was similar across the different geographic regions—and across States and Territories—although higher in remote areas (28.5%).

Occupation

- Most (61.7%) practitioners working mainly in rural and remote areas were employed in primary care; 25.3% were specialists; 7.7% were hospital non-specialists; 2.4% were specialists-in-training; and the remaining 2.9% were non-clinicians. In comparison, 43.0% of all medical practitioners were working in primary care; 33.0% were specialists; 9.7% were hospital non-specialists; 9.3% were specialists-in-training; and 4.9% were non-clinicians.

- The distribution of rural practitioners across occupation differed by sex. For males, 58.9% were employed in primary care and 30.1% were specialists; while 70.6% of females were employed in primary care, 12.8% were hospital non-specialists, and 9.9% were specialists.

Work setting in main job

- 74.0% of medical practitioners employed in rural and remote areas worked in their main job in private rooms; 19.8% worked in acute care hospitals; and the remaining 6.2% were employed in other work settings. This distribution varied across geographic regions. In other rural areas, 89.0% worked in their main job in private rooms, whereas in remote areas, 51.7% worked in private rooms, 25.2% worked in acute care hospitals and 11.8% worked in Aboriginal health services.

Hours worked

- Medical practitioners employed in rural and remote areas worked an average of 49.8 hours per week. This average was higher in remote areas (52.8 hours) because 83.1% in remote areas were working full time (35 hours or more per week).

Overseas graduates

- 22.8% of rural medical practitioners in 1996 had gained their initial qualification overseas—60.8% in the United Kingdom or Ireland, 14.7% in Asia, 8.8% in New Zealand, and the remaining 15.6% in other countries. A greater proportion of medical practitioners working in remote areas had gained an initial qualification overseas (28.8%) and a greater proportion of these had gained an initial qualification in the United Kingdom or Ireland (65.5%).

Table 23: Medical practitioners whose main job was in a rural area: region and selected characteristics, Australia, 1996

	Geographic location of main job					
Selected characteristics	**Large rural centre**	**Small rural centre**	**Other rural area**	**Remote**	**Total**	**%**
Sex						
Males	2,203	1,422	1,705	431	5,762	76.3
Females	711	401	510	172	1,794	23.7
% female	24.4	22.0	23.0	28.5	23.7	. .
Occupation of main job						
Primary care practitioner	1,173	1,123	1,952	414	4,662	61.7
Hospital non-specialist	333	91	63	94	581	7.7
Specialist	1,162	528	163	60	1,914	25.3
Specialist-in-training	141	19	6	16	182	2.4
Non-clinician	105	62	31	18	217	2.9
Age (years)						
Less than 35	628	248	387	178	1,442	19.1
35–44	980	637	827	232	2,676	35.4
45–54	733	499	477	95	1,804	23.9
55–64	340	242	289	65	937	12.4
65 and over	233	197	234	33	697	9.2
% aged 65 and over	8.0	10.8	10.6	5.5	9.2	. .
Average age	44.7	47.0	46.1	42.3	45.5	. .
Hours worked per week						
Less than 20	191	133	193	20	537	7.1
20–34	250	227	208	52	737	9.8
35–49	767	495	523	154	1,939	25.7
50–64	1,243	690	849	263	3,045	40.3
65–79	355	176	284	76	891	11.8
80 and over	109	102	158	38	406	5.4
% employed full time	84.9	80.2	81.9	88.0	83.1	. .
Average hours worked	49.6	48.5	50.4	52.8	49.8	. .
Work setting						
Private rooms	1,888	1,420	1,970	312	5,591	74.0
Acute care hospital	864	306	172	152	1,494	19.8
Residential	4	3	1	2	9	0.1
Aboriginal health service	15	10	5	71	102	1.3
Non-residential facility	66	36	47	25	175	2.3
Educational institution	13	5	0	5	23	0.3
Defence forces	12	4	8	2	26	0.3
Other government	22	18	4	13	56	0.7
Other	30	19	7	23	79	1.0
Country of initial qualification						
Australia	2,300	1,340	1,765	430	5,836	77.2
New Zealand	72	35	25	21	152	2.0
United Kingdom/Ireland	378	277	278	114	1,046	13.8
Asia	69	92	79	13	253	3.4
Other countries	95	79	68	26	269	3.6
Residency status						
Australian citizen	2,710	1,642	2,043	527	6,922	91.6
Not an Australian citizen						
Permanent resident	177	159	146	49	530	7.0
Not a permanent resident	28	21	26	28	103	1.4
Rural medical practitioners per 100,000 population	266.0	152.6	90.7	108.8	142.9	. .
Total	**2,914**	**1,823**	**2,215**	**604**	**7,556**	**100.0**

Table 24: Per cent of clinician practitioners who were female: occupation, region of main job and age, Australia, 1996

Occupation/ region of main job	Age (years)					Total
	<35	35–44	45–54	55–64	65+	
Primary care practitioner						
Capital city	52.6	43.4	28.3	18.0	12.7	34.6
Other metropolitan centre	52.7	35.5	22.1	10.8	5.0	28.0
Large rural centre	51.2	38.9	24.7	11.4	8.8	31.7
Small rural centre	40.5	32.7	18.4	17.1	10.3	26.3
Other rural area	44.0	26.7	15.6	13.1	14.0	24.5
Remote	47.7	27.7	14.9	10.6	13.6	29.0
Total	*51.0*	*39.7*	*25.9*	*16.4*	*11.9*	*32.4*
Hospital non-specialist						
Capital city	44.0	44.8	46.7	46.3	27.4	44.1
Other metropolitan centre	43.0	37.6	34.2	63.8	0.0	42.1
Large rural centre	50.3	40.6	49.7	44.5	21.6	48.1
Small rural centre	38.9	10.8	15.9	0.0	0.0	25.7
Other rural area	21.5	26.1	37.7	0.0	0.0	22.5
Remote	33.3	46.6	14.3	56.3	0.0	34.2
Total	*43.9*	*41.8*	*42.5*	*43.5*	*19.7*	*43.4*
Specialist						
Capital city	32.0	22.7	13.6	10.0	8.2	16.1
Other metropolitan centre	33.5	12.6	7.4	7.6	8.1	10.3
Large rural centre	15.8	12.5	7.0	6.0	2.1	8.8
Small rural centre	40.2	16.8	9.1	4.3	3.0	10.5
Other rural area	48.7	11.8	7.6	7.6	0.0	9.4
Remote	61.2	9.5	0.0	0.0	0.0	7.1
Total	*31.3*	*20.8*	*12.4*	*9.3*	*7.7*	*14.9*
Specialist-in-training						
Capital city	33.2	30.7	44.1	0.0	0.0	33.0
Other metropolitan centre	29.5	32.3	0.0	0.0	0.0	29.6
Large rural centre	29.6	17.4	0.0	0.0	0.0	26.2
Small rural centre	38.5	50.0	0.0	0.0	0.0	44.9
Other rural area	0.0	50.0	0.0	0.0	0.0	25.0
Remote	45.5	40.0	0.0	0.0	0.0	42.6
Total	*32.8*	*30.7*	*40.5*	*0.0*	*0.0*	*32.6*
Total						
Capital city	41.9	33.8	21.4	13.9	10.7	28.6
Other metropolitan centre	41.8	26.3	15.1	10.4	6.0	24.2
Large rural centre	43.9	27.0	14.7	9.0	6.4	23.9
Small rural centre	40.1	28.3	14.7	10.4	7.7	21.8
Other rural area	41.6	26.2	14.8	12.0	13.4	23.3
Remote	44.4	28.5	12.7	12.4	9.5	27.9
Total	**42.0**	**32.0**	**19.9**	**13.1**	**10.2**	**27.5**

7 Overseas-trained medical practitioners

Overseas-trained doctors (OTDs) have contributed greatly to the supply of medical practitioners in Australia, both as permanent additions to the workforce and as temporary residents. There were 9,701 overseas-trained doctors in the Australian medical workforce in 1996, representing 18.0% of the 47,682 employed medical practitioners.

During the last decade, monitoring of the numbers and distribution of the overseas-trained workforce has taken on increased importance.

- The medical workforce has been increasing at a much faster rate than has population growth, so the national medical workforce policy, since 1992, has been to restrict permanent net additions to the Australian workforce of OTDs to 200 per year.
- State health authorities during the 1990s have made considerable use of temporary-resident overseas-trained doctors (TRDs) to fill area of need positions in locum services, general practice and hospitals. However, in 1996, access to rendering of Medicare services became restricted to those TRDs with relevant postgraduate qualifications in their field. Current Commonwealth policy is that after 1 January 2000 no TRDs will be deemed as medical practitioners for Medicare purposes.
- State health authorities provide occupational training positions for TRDs, not only meeting international obligations to provide training but also partially filling some shortages in hospital employment.
- New Zealand medical graduates are the only OTDs whose qualifications are automatically recognised by Australian medical registration boards for practice in Australia. AMWAC and AIHW recently addressed concern that New Zealand graduates were contributing to excessive growth of the Australian medical workforce in the AMWAC and AIHW report *New Zealand Medical Graduates in the Australian Medical Workforce*. This study found that the numbers of New Zealand graduates migrating permanently and temporarily to Australia each year were similar to the numbers migrating to New Zealand.

During 1998–99, AMWAC, with the assistance of AIHW, will be undertaking a detailed analysis of the contribution of TRDs to the Australian medical workforce.

This chapter examines the 1996 distribution of OTDs in Australia (Chapter 10 provides data to 1996–97 on additions to the workforce from migration).

- There were 9,701 OTDs in 1996, of whom 1,110 had obtained their initial qualification in New Zealand (11.4%), with a further 3,782 graduates from the United Kingdom or Ireland (39.9%), 2,702 from Asia (27.9%) and the remaining 2,016 from other countries (20.8%).
- These proportions varied across States and Territories. Medical practitioners working in Western Australia and Tasmania were more likely to have obtained their initial qualification overseas—30.1% and 31.8% respectively initially qualifying overseas—and were more likely to have qualified in the United Kingdom or Ireland—18.4% and 17.8% respectively. In the Northern Territory, 11.8% of medical practitioners had obtained their initial qualification from Asia, compared with the national average of 5.7%.
- 43,851 (92.0%) employed medical practitioners were Australian citizens, 3,294 (6.9%) were non-citizen permanent residents of Australia and the remaining 537 (1.1%) were temporary residents.

- Of the 3,294 non-citizen permanent resident medical practitioners, 1,191 (36.2%) had obtained their initial qualification in Australia and 2,103 (63.8%) had trained overseas. Of those who were overseas-trained:
  - 43.8% were employed in primary care, 30.7% were specialists, 9.9% were hospital non-specialists, 11.1% were specialists-in-training and the remaining 4.4% were non-clinicians;
  - 41.9% had initially qualified in the United Kingdom or Ireland, 29.1% in New Zealand, 19.4% in Asia and 9.6% in other countries; and
  - 81.1% were employed in their main job in a major urban centre, 17.0% in a rural area and 1.9% in a remote area.
- Permanent resident overseas-trained medical practitioners were more likely to work in a rural or remote area if they had initially qualified in the United Kingdom or Ireland (25.4% worked in rural areas and 3.4% in remote areas), compared with those who had initially qualified in Asia (10.3% in rural areas and 0.2% in remote areas) or New Zealand (10.1% and 1.0% respectively).
- Of the 537 temporary resident medical practitioners, 399 (74.3%) had trained overseas. Of those who were overseas-trained:
  - 30.6% were employed in primary care, 28.1% were hospital non-specialists, 19.0% were specialists, 18.8% were specialists-in-training and the remaining 3.5% were non-clinicians;
  - 47.4% had obtained their initial qualification in the United Kingdom or Ireland, 22.1% in New Zealand, 15.8% in Asia and 15.0% in other countries;
  - 75.4% worked their main job in a major urban centre, 18.3% in a rural area and 6.3% in a remote area; and
  - 55.1% practised in public hospitals in their main job and 29.6% from private rooms.

Table 25: Employed medical practitioners: occupation and country of initial qualification, States and Territories, 1996

Occupation/country of initial qualification	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Primary care									
Australia	5,138	4,054	2,808	1,259	1,514	373	297	161	15,602
New Zealand	105	48	60	39	19	7	8	11	296
UK/Ireland	432	340	478	380	93	126	44	17	1,910
Asia	895	306	65	144	176	5	23	21	1,636
Other countries	615	183	110	64	22	51	22	3	1,071
Total	*7,185*	*4,931*	*3,521*	*1,885*	*1,824*	*563*	*395*	*212*	*20,516*
Hospital non-specialist									
Australia	1,603	762	764	261	340	90	76	45	3,943
New Zealand	80	0	23	14	8	4	1	1	131
UK/Ireland	13	15	107	37	6	6	5	5	194
Asia	102	40	22	0	10	0	7	6	186
Other countries	86	24	24	10	8	15	8	2	177
Total	*1,884*	*841*	*941*	*323*	*371*	*114*	*98*	*59*	*4,630*
Specialist									
Australia	4,355	3,619	1,984	1,031	1,214	218	229	77	12,727
New Zealand	145	117	103	53	59	13	10	6	505
UK/Ireland	334	243	263	258	119	58	28	3	1,306
Asia	301	167	33	45	70	17	11	22	667
Other countries	247	92	49	74	33	24	12	10	540
Total	*5,381*	*4,238*	*2,431*	*1,461*	*1,495*	*330*	*291*	*117*	*15,744*
Specialist-in-training									
Australia	1,345	1,174	593	269	350	68	41	25	3,864
New Zealand	49	31	14	14	10	2	5	0	126
UK/Ireland	35	43	87	47	7	4	1	0	224
Asia	44	26	22	4	2	0	4	0	102
Other countries	47	20	30	12	10	14	1	0	135
Total	*1,521*	*1,294*	*746*	*346*	*378*	*88*	*53*	*25*	*4,451*
Non-clinician									
Australia	683	538	289	80	139	31	67	17	1,845
New Zealand	16	18	11	2	3	0	1	1	52
UK/Ireland	65	63	34	42	16	10	4	3	237
Asia	33	50	2	8	11	3	1	3	111
Other countries	34	42	2	4	4	5	3	0	94
Total	831	711	337	136	174	49	77	24	2,340
Total									
Australia	13,125	10,146	6,438	2,900	3,556	780	710	325	37,981
New Zealand	395	214	210	121	99	26	26	19	1,110
UK/Ireland	879	704	968	765	241	204	83	28	3,872
Asia	1,374	589	144	201	270	25	48	52	2,702
Other countries	1,029	361	215	164	76	109	46	15	2,016
Total	**16,802**	**12,015**	**7,976**	**4,151**	**4,242**	**1,144**	**913**	**439**	**47,682**

Table 26: Permanent resident overseas-trained medical practitioners: occupation, country of initial qualification and region, Australia, 1996

Occupation/ country of initial qualification	Region of main job						
	Capital city	Other metro. centre	Large rural centre	Small rural centre	Other rural area	Remote	Total
Primary care							
New Zealand	122	12	10	10	9	4	168
UK/Ireland	244	32	40	53	68	26	463
Asia	207	10	0	6	11	0	234
Other countries	39	6	1	4	5	3	58
Total	*613*	*59*	*52*	*73*	*93*	*33*	*923*
Hospital non-specialist							
New Zealand	65	15	2	3	0	0	85
UK/Ireland	30	4	4	0	2	2	41
Asia	46	6	3	0	0	0	56
Other countries	18	3	3	2	0	0	26
Total	*159*	*29*	*12*	*5*	*2*	*2*	*208*
Specialist							
New Zealand	195	30	22	4	0	1	253
UK/Ireland	194	10	22	19	3	0	249
Asia	46	6	4	12	5	1	74
Other countries	54	4	3	8	1	0	70
Total	*489*	*51*	*51*	*44*	*9*	*3*	*646*
Specialist-in-training							
New Zealand	70	12	0	0	0	0	82
UK/Ireland	77	7	3	2	0	2	92
Asia	27	0	0	0	0	0	27
Other countries	32	0	0	0	2	0	33
Total	*206*	*19*	*3*	*2*	*2*	*2*	*234*
Non-clinician							
New Zealand	21	2	0	2	0	0	24
UK/Ireland	23	5	4	2	2	0	36
Asia	15	1	1	0	0	0	18
Other countries	14	0	0	0	0	0	14
Total	*73*	*9*	*5*	*3*	*2*	*0*	*92*
Total							
New Zealand	474	71	34	19	9	6	613
UK/Ireland	569	59	73	76	74	30	881
Asia	341	24	9	17	16	1	408
Other countries	156	13	7	14	8	3	201
Total	**1,540**	**166**	**123**	**127**	**107**	**39**	**2,103**

Table 27: Temporary resident overseas-trained medical practitioners:[(a)] occupation, country of initial qualification and region, Australia, 1996

Occupation/ country of initial qualification	Region of main job						
	Capital city	Other metro. centre	Large rural centre	Small rural centre	Other rural area	Remote	Total
Primary care							
New Zealand	11	1	0	0	3	0	15
UK/Ireland	25	9	5	5	10	7	61
Asia	17	4	0	1	0	0	22
Other countries	10	0	0	0	6	7	24
Total	*64*	*14*	*5*	*6*	*19*	*14*	*122*
Hospital non-specialist							
New Zealand	18	2	2	0	0	1	22
UK/Ireland	32	12	11	6	0	10	71
Asia	9	0	0	0	0	0	9
Other countries	9	1	0	0	0	0	10
Total	*67*	*15*	*13*	*6*	*0*	*11*	*112*
Specialist							
New Zealand	23	4	1	1	3	0	32
UK/Ireland	11	3	4	3	0	0	21
Asia	10	0	0	1	3	0	14
Other countries	7	0	1	1	0	0	9
Total	*50*	*7*	*7*	*7*	*6*	*0*	*76*
Specialist-in-training							
New Zealand	11	3	1	0	0	0	15
UK/Ireland	32	2	0	0	0	0	34
Asia	10	3	2	0	0	0	15
Other countries	9	1	0	0	0	0	11
Total	*63*	*9*	*4*	*0*	*0*	*0*	*75*
Non-clinician							
New Zealand	4	0	0	0	0	0	4
UK/Ireland	1	0	0	0	0	0	1
Asia	2	0	0	0	0	0	2
Other countries	4	0	2	0	0	0	6
Total	*12*	*0*	*2*	*0*	*0*	*0*	*14*
Total							
New Zealand	66	9	4	1	6	1	88
UK/Ireland	102	26	20	14	10	17	189
Asia	48	7	2	3	3	0	63
Other countries	39	3	3	1	6	7	60
Total	**256**	**45**	**30**	**19**	**24**	**25**	**399**

(a) There were 980 temporary resident doctors who entered Australia for employment in 1995–96, and 1,626 in 1996–97. Most entered for a stay of less than 12 months and were not included in the AIHW labour force survey. Therefore the estimates in this table refer to temporary resident doctors who were re-registering for practice at the general renewal of registration in late 1996.

8 Aboriginal health service employment

Australia's Aboriginal and Torres Strait Islander peoples experience much poorer health than the general population, and have a life expectancy at birth more than 15 years less than that for other Australians (AIHW 1998, pp. 28–34).

In 1997, AIHW and the National Centre of Epidemiology and Population Health conducted the first comprehensive analysis of expenditure on health services for Aboriginal and Torres Strait Islander peoples. This found that Indigenous peoples receive health services through Medicare and the Pharmaceutical Benefits Scheme at only one-quarter of the rate per person for other Australians. Offsetting this to some extent are services from Indigenous health organisations.

In the work setting question in the AIHW annual national medical labour force survey, doctors are asked to identify whether they are employed in an Aboriginal health service in their main or a second or third job. This chapter presents data on the characteristics of doctors who identified that they were employed in an Aboriginal health service. The AIHW survey does not collect data on Aboriginality because the numbers are too small to protect practitioner confidentiality in tabulations. The AIHW will publish data from the 1996 ABS Census of Population and Housing on the numbers of Aboriginal and Torres Strait Islander doctors in Australia at a later date.

There were 547 medical practitioners in 1996 who indicated that the employment setting of their main, second or third job was an Aboriginal health service. Features of these medical practitioners included the following.

Geographic distribution

- The distribution of Aboriginal health service clinicians in some States and Territories differed significantly from the distribution of the Indigenous population: 11.3% of these clinicians were in Queensland with 26.2% of the Indigenous population; 13.2% were in Victoria with 5.9% of the population; 12.4% were in South Australia with 5.7% of the population. The other States and Territories had approximately the same proportion of Aboriginal health service clinicians as of Indigenous population.
- 63.0% of Aboriginal health service medical practitioners were located in a metropolitan area where 36.2% of the Indigenous population was located.

Sex

- 209 (38.2%) of the 547 medical practitioners employed in an Aboriginal health service were female. The female proportion was between 28% and 35% across all States and Territories except the Northern Territory (54.9%) and Queensland (50.4%).

Occupation

- 49.2% of Aboriginal health service medical practitioners were primary care practitioners; 36.4% were specialists; 4.4% were specialists-in-training; 6.4% were hospital non-specialists; and the remaining 3.6% worked in a non-clinical field including administration and education.

Age

- The average age of these medical practitioners was 41.7 years. This average varied across States and Territories, from a high of 44.5 years in South Australia to a low of 38.2 years in Western Australia and the Northern Territory.

Hours worked

- Medical practitioners in an Aboriginal health service worked an average of 22.1 hours per week mainly because only 45.5% of these doctors were working in such a service as their main job. Average hours worked varied among States and Territories, from a low of 14.0 hours per week in Victoria and 15.0 hours per week in South Australia to a high of 30.4 hours per week in the Northern Territory. Most practitioners (60.5%) worked fewer than 35 hours a week in the Aboriginal health service.

Overseas graduates

- 83.7% of Aboriginal health service medical practitioners had gained their initial qualification in Australia. Of those who had gained an initial qualification overseas, 44.4% qualified in the United Kingdom or Ireland.

Aboriginal health service as a main job

- There were 249 medical practitioners who worked in an Aboriginal health service in their main job in 1996.
- 46.1% were female.
- 58.5% were primary care practitioners; 19.3% were specialists; 9.7% were hospital non-specialists; 7.3% were specialists-in-training; and the remaining 5.2% worked in a non-clinical field including administration and education.
- The average age of these medical practitioners was 39.1 years.
- 56.5% were employed in their main job as an Aboriginal health service medical practitioner in a metropolitan area.
- Most medical practitioners whose main job was in an Aboriginal health service (71.9%) worked 35 or more hours per week. The average was 38.1 hours per week in 1996.
- 82.3% of medical practitioners working in an Aboriginal health service in their main job had gained their initial qualification in Australia. Of those who initially qualified overseas, 48.8% had qualified in the United Kingdom or Ireland.

Table 28: Medical practitioners employed in an Aboriginal health service: selected characteristics, States and Territories, 1996

Selected characteristics	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	%
Occupation										
Clinician	*119*	*69*	*60*	*92*	*66*	*25*	*11*	*85*	*527*	*96.4*
Primary care practitioner	48	27	31	48	33	6	5	72	269	49.2
Hospital non-specialist	9	0	9	9	2	0	3	3	35	6.4
Specialist	54	37	19	31	32	13	3	10	199	36.4
Specialist-in-training	7	6	1	4	0	5	0	0	24	4.4
Non-clinician	*12*	*3*	*1*	*0*	*1*	*0*	*0*	*2*	*20*	*3.6*
Geographic location										
Metropolitan	103	55	38	45	52	13	11	27	344	63.0
Non-metropolitan	27	17	24	48	16	11	0	59	202	37.0
% metropolitan	79.2	76.2	61.6	48.5	76.2	53.8	100.0	31.5	63.0	. .
Sex										
Males	90	47	31	63	44	18	7	39	338	61.8
Females	41	25	31	30	24	7	4	48	209	38.2
% female	31.0	34.7	50.4	31.9	35.5	28.4	36.4	54.9	38.2	. .
Age (years)										
Average age	42.9	43.8	41.5	38.2	44.5	41.8	43.4	38.2	41.7	. .
Less than 35	32	16	13	25	10	7	1	33	137	25.1
35–44	35	29	27	40	27	11	7	33	210	38.4
45–54	34	15	12	17	21	5	1	12	118	21.6
55 and over	29	12	9	10	9	1	2	9	82	14.9
Hours worked per week										
Less than 20	58	45	30	35	43	12	6	14	242	44.3
20–34	18	13	7	8	9	2	0	31	88	16.2
35–49	21	13	16	30	6	7	2	23	119	21.8
50–64	30	2	9	11	9	2	2	12	77	14.1
65–79	3	0	0	5	0	2	0	4	14	2.5
80 and over	2	0	0	3	0	0	0	2	6	1.1
% employed full time	42.1	20.7	39.5	52.8	23.1	45.2	42.4	47.9	39.5	. .
Country of initial qualification										
Australia	113	65	51	73	56	22	9	68	457	83.7
New Zealand	3	0	2	2	0	0	0	7	13	2.5
UK/Ireland	3	6	8	13	2	1	0	7	40	7.2
Asia	7	0	0	2	9	0	0	3	21	3.9
Other countries	5	1	0	2	2	1	1	2	15	2.7
Residency status										
Australian citizen	128	69	54	84	65	25	11	80	514	94.1
Not Australian citizen										
Permanent resident	1	3	5	2	3	0	0	7	22	4.0
Not permanent	1	0	3	6	0	0	0	0	10	1.9
Total	**131**	**72**	**62**	**92**	**68**	**25**	**11**	**87**	**547**	**100.0**
Practitioners per 100,000 Indigenous pop.	118.9	319.7	58.7	164.4	307.2	160.2	354.5	166.9	141.7	

(a) All medical practitioners who reported working in an Aboriginal health service in a main, second or third job.

9 Medical education and training

The Australian Health Ministers' Advisory Council (AHMAC) recommends to health ministers national medical workforce benchmarks and annual medical student and immigration targets to achieve these benchmarks.

In 1992, AHMAC set a medical workforce benchmark target of 200 practitioners per 100,000 population, to be achieved by annual inputs of 1,200 graduates with a basic medical degree, and net annual additions of 200 overseas-trained doctors per year. The data on Australian medical undergraduate intakes show a fall from 1,392 in 1991 to 1,330 in 1992 and 1,304 in 1993. A changeover to a four-year postgraduate degree course at three universities was responsible for further falls in commencements during the following three years.

In 1996, AHMAC agreed to a new benchmark target of 220 full-time equivalent clinicians per 100,000 population in 2005, and to a fall in medical graduates from 1,200 per year to 1,000 per year from the year 2002. The 1997 intake of 1,233 is likely to exceed this target in 2002. However, AMWAC is reviewing the benchmark during 1998–99 to account for changes in demand and supply indicators since 1996.

The Department of Employment, Education, Training and Youth has provided data on the number of students who enrolled in courses for years up to 1997 and who completed courses for years up to 1996. AIHW analysis of these data has found:

- 1,743 Australian citizen/permanent resident students completed medicine courses in 1996—1,327 (76.1%) completed undergraduate courses and 416 (23.9%) completed post-graduate courses. Of these, 832 (47.7%) were female—an overall increase from 38.7% in 1988.
- A further 187 overseas students completed medicine courses at Australian universities in 1996—9.7% of all completions.
- 1,233 Australian citizen and permanent resident students enrolled to commence initial medicine courses in 1997. During 1994–1996, there was a hiatus in students commencing initial medicine courses while Flinders University, the University of Queensland and the University of Sydney introduced a four-year postgraduate degree medical course in place of the previous six-year undergraduate course. Each university had a two-year transition period, during which only a small number of students with the necessary qualifications were admitted. The first intake to the new course at Flinders University was in 1996 and intakes to the new courses at the University of Queensland and the University of Sydney began in 1997. The University of Sydney will not reach its planned annual intake of 186 new students until the 1999 academic year.
- 45.8% of the students commencing initial medicine courses in 1997 were female. This is the lowest proportion of females commencing medicine courses since 1992 and is mainly attributed to a very low proportion of females entering the first graduate entry course at the University of Queensland, although the proportion of female students also fell at four other medical schools between 1996 and 1997.
- 88.6% of these commencing students originated from a capital city or other metropolitan area, 10.1% from a rural area and 0.5% from a remote area. In contrast, 71.1% of the population were living in metropolitan areas, 25.9% in rural areas and 3.0% in remote areas.
- The average age of commencing students has increased by 5–8 years at the three universities which introduced graduate entry to initial medical courses. This will decrease the expected lifetime contribution in hours worked of these students to the medical labour supply.

- 8,973 Australian citizen and permanent resident students were enrolled in medicine courses in 1997—6,594 (73.5%) in bachelor courses and 2,379 (26.5%) in postgraduate courses.
- 37.4% of these students were born in overseas countries. Most of these (58.8%) were born in Asia—mainly Malaysia, Vietnam and Hong Kong—and a further 13.1% were born in the United Kingdom or Ireland.

Additional analysis of medical student numbers may be found in the 1998 AMWAC and AIHW publication, *Characteristics of Students Entering Australian Medical Schools 1989 to 1997*.

Table 29: Medical student course completions: citizenship and level of course, Australia, 1988–96

Level of course	1988	1989	1990	1991	1992	1993	1994	1995	1996
					Australian citizens or permanent residents[(a)]				
Bachelor									
Graduate entry	0	0	0	0	2	5	0	6	4
Bachelor honours	26	25	17	204	60	48	57	44	41
Bachelor pass	1,279	1,162	997	940	1,022	1,181	1,178	1,191	1,282
Total	*1,305*	*1,187*	*1,014*	*1,144*	*1,084*	*1,234*	*1,235*	*1,241*	*1,327*
Number of females	519	487	442	467	454	513	576	558	624
% female	39.8	41.0	43.6	40.8	41.9	41.6	46.6	45.0	47.0
Postgraduate									
Higher doctorate	27	33	34	36	35	28	28	39	37
PhD	84	108	130	165	142	138	168	190	228
Masters	27	38	46	76	37	35	54	58	80
Masters qualifying	1	5	0	0	2	0	0	0	0
Diploma/certificate	33	33	32	47	36	73	133	118	71
Total	*172*	*217*	*242*	*324*	*252*	*274*	*383*	*405*	*416*
Total	**1,477**	**1,404**	**1,256**	**1,468**	**1,336**	**1,508**	**1,618**	**1,646**	**1,743**
Number of females	587	569	542	610	573	624	739	771	832
% female	39.7	40.5	43.2	41.6	42.9	41.4	45.7	46.8	47.7
					Overseas students				
Bachelor	17	59	44	73	52	67	85	134	150
Postgraduate	15	32	17	34	38	50	41	47	37
Total	**32**	**91**	**61**	**107**	**90**	**117**	**126**	**181**	**187**
Number of females	13	32	22	36	37	40	48	88	79
% female	40.6	35.2	36.1	33.6	41.1	34.2	38.1	48.6	42.2

(a) Before 1993, not all universities had citizenship information for all students completing courses, so these data include students for whom citizenship/residency status was unknown. Consequently, data before 1993 may slightly overstate the number of course completions by Australian citizen/resident students.

Source: AIHW from DEETYA data.

Table 30: Australian citizens and permanent residents commencing undergraduate medicine courses:[a] university and sex, Australia, 1989–97

University	1989	1990	1991	1992	1993	1994	1995	1996	1997
Flinders University	58	77	70	63	64	8[b]	0[b]	60	58
Monash University	153	153	164	141	139	137	130	139	123
University of Adelaide	107	107	112	105	98	101	103	93	90
University of Melbourne	182	199	185	182	185	193	199	198	204
University of New South Wales	152	142	144	156	140	146	162	175	145
University of Newcastle	67	75	72	69	66	66	69	63	67
University of Queensland	225	241	232	225	218	225	6[b]	2[b]	231
University of Sydney	266	253	238	220	219	167	14[b]	21[b]	139
University of Tasmania	50	49	50	49	50	50	54	54	53
University of Western Australia	119	121	125	120	125	124	123	123	123
Total	**1,379**	**1,417**	**1,392**	**1,330**	**1,304**	**1,217**	**860**	**928**	**1,233**
				(per cent who are female)					
Flinders University	41.4	44.2	52.9	57.1	51.6	25.0	0.0	55.0	41.4
Monash University	42.5	40.5	51.8	47.5	49.6	52.6	61.5	56.1	62.6
University of Adelaide	40.2	48.6	42.9	49.5	39.8	39.6	53.4	43.0	53.3
University of Melbourne	44.5	42.7	43.2	45.1	43.2	47.7	40.2	38.9	41.2
University of New South Wales	42.1	43.0	40.3	36.5	41.4	41.8	39.5	47.4	49.0
University of Newcastle	67.2	73.3	66.7	65.2	57.6	57.6	56.5	60.3	58.2
University of Queensland	42.2	49.0	50.4	41.3	55.5	50.7	50.0	0.0	34.2
University of Sydney	36.5	36.0	43.7	35.0	43.8	47.3	35.7	38.1	43.9
University of Tasmania	60.0	59.2	60.0	59.2	54.0	60.0	44.4	53.7	49.1
University of Western Australia	47.9	42.1	54.4	47.5	46.4	49.2	46.3	52.0	45.5
Total	**43.6**	**45.0**	**48.5**	**44.7**	**47.5**	**48.4**	**47.3**	**48.5**	**45.8**

(a) Includes bachelor pass, bachelor honours and graduate entry bachelor courses.

(b) Flinders University, University of Queensland and University of Sydney have introduced a four-year postgraduate degree medical course in place of the previous six-year undergraduate course. Each university had a two-year transition period during which only a small number of students with the necessary qualifications were admitted. The first intake to the new course at Flinders University was in 1996 and the first intakes to the new courses at the University of Queensland and the University of Sydney were in 1997.

Source: AIHW from DEETYA data.

10 Additions to the workforce from migration

10.1 Australian Medical Council approvals

A significant source of permanent additions to the Australian medical workforce is overseas-trained medical practitioners who have permanent resident status and who have gained full or conditional eligibility to practise by meeting examination and other requirements of the Australian Medical Council.

A total of 222 permanent-resident overseas-trained medical practitioners passed the Medical Council's clinical examination and were ratified for registration in 1997. A further 43 overseas-trained specialists qualified for registration after recognition of their qualifications by a specialist college and the AMC.

10.2 Migration by medical practitioners

The Department of Immigration and Multicultural Affairs provides medical practitioner international migration data. The features of these data included the following.

Visas issued

- 312 visas were issued in 1996–97 to persons holding medical qualifications who were permanently migrating to Australia—a decrease of 42.8% on the number issued in 1995–96. The majority of these visas (78.2%) were issued under the 'preferential family' category.
- 26.6% of these visas were issued to residents of the People's Republic of China and a further 13.8% were issued to residents of the United Kingdom or Ireland.

Permanent migration

- 369 medical practitioners who were citizens of foreign countries permanently migrated to Australia in 1996–97. Of these 40.7% had previously resided in Asia, 17.3% in the United Kingdom or Ireland, and 16.8% in New Zealand. A further 735 medical practitioners who were Australian citizens or permanent residents of Australia returned after a long-term (12 months or more) overseas stay. Of these, 37.7% had been staying in the United Kingdom or Ireland, 26.0% in Asia and 19.7% in the United States of America or Canada.
- During the same year, 159 medical practitioners permanently migrated from Australia, of whom 32.1% went to New Zealand. A further 631 foreign medical practitioners who had been residing in Australia for 12 months or more departed from Australia, of whom 40.4% went to the United Kingdom or Ireland.

Temporary migration for employment

- 1,597 medical practitioners who were citizens of foreign countries arrived in Australia temporarily in 1996–97 to take up employment—513 for a long-term stay and 1,084 for a short-term stay. Of these, 69.1% had previously resided in the United Kingdom or Ireland and 7.7% in New Zealand.

- This arrival of temporary resident doctors represented a considerable increase on the 980 in 1995–96 and 1,171 in 1994–95, despite changes in access by TRDs to rendering of Medicare services introduced in late 1996.
- 437 Australian citizen or permanent resident medical practitioners left Australia during 1996–97 to take up employment overseas on a long-term basis. Of these, 33.6% were intending to work in the United Kingdom or Ireland, 29.2% in Asia, 20.4% in the United States of America or Canada and 5.3% in New Zealand.

Table 31: Australian Medical Council examination results: 1992–97

	1992	1993	1994	1995	1996	1997
Overseas-trained doctors entering through the general registration pathway						
MCQ examination						
Number of candidates presenting	921	812	619	688	858	1,081
Number passing/eligible to proceed to clinical examination	298	217	218	220	392	363
Clinical examination						
Number of exams conducted	570	439	380	482	512	475
Number passing AMC exam and eligible for registration	*238*	*194*	*212*	*262*	*226*	*222*
Overseas-trained specialists entering through the AMC/specialist college pathway[a]						
Number of applications received	264[b]	147	139	174	175	175
Number rejected	67[b]	3	10	7	5	3
Total qualified for registration	*50[b]*	*10*	*23*	*55*	*63*	*43*
Total overseas-trained doctors entering the workforce	**295[c]**	**203**	**234**	**277**	**289**	**265**

(a) 1997 figures are pro-rata estimates of data to July 1998.

(b) Data for the period 1990–92.

(c) Includes AMC/specialist college pathway data for the period 1990–92.

Notes

1. The total number of examinations conducted is a factor of the number of clinical examination places that the AMC is able to arrange in any one year. In 1993 the number of places was reduced from a target of 600 per year to 400 per year as a result of constraints on the clinical resources used for AMC clinical examinations.
2. A three-year limit for AMC clinical examination came into force on 1 January 1995 for those who passed the MCQ examination.
3. From 1996 the AMC ceased to conduct the MCQ examination overseas.

Source: Australian Medical Council.

Table 32: Permanent migration of medical practitioners to and from Australia, 1992–93 to 1996–97

	1992–93	1993–94	1994–95	1995–96	1996–97	% 1996–97
Permanent migration to Australia of overseas residents						
Country of previous residence						
New Zealand[(a)]	39	49	74	71	59	16.0
Other Oceania	7	5	6	6	3	0.8
UK/Ireland	105	85	119	87	64	17.3
Other Europe	103	55	81	63	38	10.3
Middle East	11	15	22	24	11	3.0
Africa	33	38	40	35	34	9.2
Hong Kong	46	28	31	30	24	6.5
China	25	42	58	186	83	22.5
Other Asia	96	100	110	93	43	11.7
USA/Canada	13	19	13	25	10	2.7
Other countries	2	9	4	6	0	0.0
Total	*480*	*445*	*558*	*626*	*369*	*100.0*
Migration to Australia of Australian residents returning after a long-term overseas stay						
Country of long-term stay						
New Zealand	14	17	13	18	23	3.1
Other Oceania	15	13	24	12	17	2.3
UK/Ireland	312	324	289	311	277	37.7
Other Europe	38	49	38	43	33	4.5
Middle East	28	34	38	44	21	2.9
Africa	26	26	29	24	28	3.8
Hong Kong	95	98	120	106	111	15.1
Singapore	13	15	14	10	15	2.0
Malaysia	20	16	10	14	17	2.3
Other Asia	35	39	50	65	41	5.6
USA/Canada	137	164	179	166	145	19.7
Other countries	1	3	2	6	7	1.0
Total	*734*	*798*	*806*	*819*	*735*	*100.0*
Permanent migration from Australia of Australian residents						
Country of future residence						
New Zealand	29	34	52	49	51	32.1
Other Oceania	1	1	0	2	2	1.3
UK/Ireland	37	31	41	32	37	23.3
Other Europe	6	9	7	6	4	2.5
Middle East	6	10	4	3	8	5.0
Asia	29	37	36	29	38	23.9
USA/Canada	22	25	13	27	15	9.4
Other countries	3	4	1	5	4	2.5
Total	*133*	*151*	*154*	*153*	*159*	*100.0*
Migration from Australia of temporary visitors after a long-term stay						
Country of future residence						
New Zealand	18	32	20	22	28	4.4
Other Oceania	14	9	17	17	18	2.9
UK/Ireland	187	161	192	269	255	40.4
Other Europe	18	31	35	41	44	7.0
Malaysia	32	26	35	31	31	4.9
China	38	31	39	39	38	6.0
Japan	15	31	25	19	23	3.6
Other Asia	83	76	82	124	129	20.4
USA/Canada	10	21	17	16	29	4.6
Other countries	16	17	18	27	36	5.7
Total	*431*	*435*	*480*	*605*	*631*	*100.0*

(a) Includes New Zealand citizens.

Source: AIHW from Department of Immigration and Multicultural Affairs data.

Table 33: Temporary migration of medical practitioners to and from Australia for employment: 1992–93 to 1996–97

	1992–93	1993–94	1994–95	1995–96	1996–97	% 1996–97
Migration to Australia for long-term stay						
Country of previous residence						
New Zealand	50	48	63	41	65	12.7
UK/Ireland	148	193	241	278	317	61.8
Asia	25	32	37	37	52	10.1
Other countries	18	25	35	56	79	15.4
Total	*241*	*298*	*376*	*412*	*513*	*100.0*
Migration to Australia for short-term stay						
Country of previous residence						
New Zealand	52	57	49	56	58	5.4
UK/Ireland	334	444	641	277	786	72.5
Asia	25	38	46	37	57	5.3
USA/Canada	8	25	36	164	110	10.1
Other countries	7	31	23	34	73	6.7
Total	*426*	*595*	*795*	*568*	*1,084*	*100.0*
Migration from Australia of Australian residents for a long-term overseas stay						
Country of long-term stay						
New Zealand	9	13	12	17	23	5.3
Other Oceania	26	21	18	24	17	3.9
UK/Ireland	163	140	161	147	147	33.6
Other Europe	11	13	12	17	11	2.5
Middle East	23	21	23	22	13	3.0
Hong Kong	54	56	67	50	71	16.2
Other Asia	39	31	36	45	57	13.0
USA/Canada	101	69	93	87	89	20.4
Other countries	13	15	12	15	9	2.1
Total	*439*	*379*	*434*	*424*	*437*	*100.0*

Source: AIHW from Department of Immigration and Multicultural Affairs data.

11 Medicare statistics

The Medicare Estimates and Statistics Section of the Department of Health and Family Services provided Medicare data. More detailed statistics may be found at the Department's Internet site on *http://www.health.gov.au*, while a description of Medicare and further analysis of Medicare data are included in pages 215–19 of *Australia's Health 1998* (AIHW 1998).

The main features of the Medicare data in this chapter are as follows.

- From 30 June 1996 to 30 June 1997 the population of Australia increased by 1.2% from 18,310,714 to 18,532,247. During the same period:
  - Medicare providers increased by 1.8%;
  - medical practitioner Medicare providers increased by 1.8%;
  - VRGPs increased by 2.1%, partly offset by a decrease in OMPs of 3.3%, for an overall primary care provider increase of 0.6%; and
  - recognised medical specialist Medicare providers increased by 3.4%.
- Between 1984–85 and 1996–97, the number of medical practitioners providing Medicare services increased by 50.2% from 27,372 to 41,116. The Australian population increased by 17.4% over the same period.
- Primary care providers, including VRGPs and OMPs, comprised 61.9% of medical practitioners in 1984–85 and, after rising to 62.7% in 1989–90, declined to 59.7% in 1996–97.
- The average number of services undertaken by each Medicare provider in 1996–97 was 4,437, increasing by 0.1% from the 1995–96 average. Specialist pathologists undertook most services, averaging 92,017 per provider in 1996–97; non-specialist surgeons averaged the least (365 per provider).
- Over the period 1984–85 to 1996–97, Medicare medical practitioners per 100,000 population grew from 173.4 to 221.0—an increase of 28.0%.
- Medicare primary care providers reached a peak of 134.0 practitioners per 100,000 population in 1994–95 and declined to 131.4 per 100,000 population in 1996–97 (or from one for every 746 persons in Australia to one for every 761 persons).
- Medicare specialists and non-specialists working mainly in specialist fields have continued a long-term increase of more than 2% per year, increasing to 89.6 per 100,000 population in 1996–97 (or one for every 1,116 persons) from 66.0 per 100,000 population in 1984–85 (or one for every 1,515 persons).
- Over the period 1987–88 to 1996–97, the average number of Medicare services per person in a year increased by 35.2% from 6.40 services to 8.65 services for males, and by 28.8% from 9.91 services to 12.76 services for females. Care should be exercised in interpreting this change. Much of the increase is a result of structural change in the Medical Benefits Schedule without accompanying change in patient services. For example, early in 1992 pathology patient-episode-initiation items (to cover overheads with specimen collection) were added to the Medical Benefits Schedule and this resulted in an additional 15 million services with no change in the service to patients.

Table 34: Medicare providers: peer group and specialty, Australia, 1989–90 to 1996–97

Peer group/ specialty	1989–90	1990–91	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97
General	21,647	22,152	22,746	23,088	23,587	24,206	24,376	24,526
Vocationally registered GP	5,127	7,471	10,744	14,826	16,280	17,341	17,711	18,078
Other medical practitioner	16,520	14,681	12,002	8,262	7,307	6,865	6,665	6,448
Obstetrician/gynaecologist	899	920	923	930	867	899	896	912
IVF	n.a.	n.a	n.a.	n.a.	63	67	72	72
Surgeon	3,884	4,005	4,140	4,270	4,418	4,597	4,714	4,816
Specialist	3,222	3,289	3,355	3,433	3,479	3,586	3,598	3,641
Non-specialist	662	716	785	837	939	1,011	1,116	1,175
Anaesthetist	1,618	1,680	1,764	1,805	1,892	1,952	2,022	2,076
Specialist	1,534	1,589	1,652	1,702	1,781	1,814	1,859	1,900
Non-specialist	84	91	112	103	111	138	163	176
Psychiatrist	1,331	1,389	1,437	1,501	1,555	1,582	1,615	1,672
Diagnostic imagist	1,040	1,078	1,159	1,221	1,247	1,266	1,436	1,505
Specialist	958	983	1,050	1,114	1,143	1,169	1,311	1,383
Non-specialist	82	95	109	107	104	97	125	122
Radiation oncology specialist	102	100	106	104	113	119	130	131
Pathologist	644	663	670	645	616	607	586	575
Specialist	545	566	569	544	517	506	493	501
Non-specialist	99	97	101	101	99	101	93	74
Dermatologist	237	239	242	245	260	267	275	277
Physician	2,854	2,980	3,143	3,333	3,477	3,664	3,868	4,069
Other medical	246	286	271	298	356	382	438	485
Total medical	34,502	35,492	36,601	37,440	38,451	39,608	40,428	41,116
Optometrist	1,130	1,160	2287[a]	2,356	2,424	2,500	2,576	2,621
Dental/orthodontist	319	339	382	382	409	420	409	457
Total	**35,951**	**36,991**	**39,270**	**40,178**	**41,284**	**42,528**	**43,413**	**44,194**
			(per cent change—year on year increase)					
General	3.6	2.3	2.7	1.5	2.2	2.6	0.7	0.6
Vocationally registered GP	. .	45.7	43.8	38.0	9.8	6.5	2.1	2.1
Other medical practitioner	–20.9	–11.1	–18.2	–31.2	–11.6	–6.0	–2.9	–3.3
Obstetrician/gynaecologist	2.0	2.3	0.3	0.8	–6.8	3.7	–0.3	1.8
IVF	n.a.	n.a	n.a.	n.a.	n.a.	6.3	7.5	0.0
Surgeon	2.7	3.1	3.4	3.1	3.5	4.1	2.5	2.2
Specialist	1.0	2.1	2.0	2.3	1.3	3.1	0.3	1.2
Non-specialist	11.4	8.2	9.6	6.6	12.2	7.7	10.4	5.3
Anaesthetist	3.1	3.8	5.0	2.3	4.8	3.2	3.6	2.7
Specialist	2.7	3.6	4.0	3.0	4.6	1.9	2.5	2.2
Non-specialist	10.5	8.3	23.1	–8.0	7.8	24.3	18.1	8.0
Psychiatrist	4.8	4.4	3.5	4.5	3.6	1.7	2.1	3.5
Diagnostic imagist	–0.1	3.7	7.5	5.3	2.1	1.5	13.4	4.8
Specialist	1.5	2.6	6.8	6.1	2.6	2.3	12.1	5.5
Non-specialist	–15.5	15.9	14.7	–1.8	–2.8	–6.7	28.9	–2.4
Radiation oncology specialist	9.7	–2.0	6.0	–1.9	8.7	5.3	9.2	0.8
Pathologist	–0.2	3.0	1.1	–3.7	–4.5	–1.5	–3.5	–1.9
Specialist	–0.7	3.9	0.5	–4.4	–5.0	–2.1	–2.6	1.6
Non-specialist	3.1	–2.0	4.1	0.0	–2.0	2.0	–7.9	–20.4
Dermatologist	3.5	0.8	1.3	1.2	6.1	2.7	3.0	0.7
Physician	5.5	4.4	5.5	6.0	4.3	5.4	5.6	5.2
Other medical	–4.7	16.3	–5.2	10.0	19.5	7.3	14.7	10.7
Total medical	3.4	2.9	3.1	2.3	2.7	3.0	2.1	1.7
Optometrist	5.0	2.7	97.2[a]	3.0	2.9	3.1	3.0	1.7
Dental/orthodontist	–0.9	6.3	12.7	0.0	7.1	2.7	–2.6	11.7
Total	**3.4**	**2.9**	**6.2**	**2.3**	**2.8**	**3.0**	**2.1**	**1.8**

(a) Prior to 1991–92, optometry services provided by a multi-practitioner practice may have been billed to Medicare under the provider number of the principal. From 1991–92, services were billed to the provider number of each practitioner.

Source: Medicare Statistics, Department of Health and Family Services.

Table 35: Average number of Medicare services per person: service type, Australia, 1988–89 to 1996–97

Service type	1988–89	1989–90	1990–91	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97
GP attendances	4.76	4.99	4.91	5.08	5.27	5.41	5.45	5.58	5.53
Specialist attendances	0.81	0.84	0.86	0.89	0.92	0.94	0.97	0.99	0.98
Obstetrics	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.07	0.09
Anaesthetics	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Pathology—patient episode initiation	. .	. .	. .	0.25	0.72	0.77	0.83	0.88	0.91
Pathology tests	1.86	1.53	1.51	1.49	1.52	1.63	1.76	1.77	1.80
Diagnostic imaging	0.42	0.45	0.48	0.49	0.52	0.53	0.55	0.57	0.56
Operations	0.22	0.24	0.26	0.27	0.28	0.28	0.28	0.29	0.29
Assist in operations	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Optometry	0.13	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.20
Radiotherapy and therapeutic nuclear medicine	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Other	0.14	0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.23
Total	**8.50**	**8.48**	**8.48**	**8.95**	**9.74**	**10.10**	**10.41**	**10.70**	**10.72**

Source: Medicare Statistics, Department of Health and Family Services.

Explanatory notes

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 medical labour force survey commenced in 1993 in conjunction with the annual registration renewal of medical practitioners. Prior to 1993, a number of State health authorities, specialist medical colleges and two publishing companies had conducted regular medical workforce surveys, while annual Medicare provider statistics have been available since 1984–85.

In February 1997 AHMAC reviewed medical workforce priorities and the activities of the Australian Medical Workforce Advisory Committee, which had started early in 1995. AHMAC concluded that AMWAC should continue for a further five years and that the AIHW medical labour force survey should continue annually.

Scope and coverage

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

Coverage in some States may exclude medical practitioners who registered for the first time during the current year. Practitioners with a conditional registration, usually for a fixed term, are also excluded in many States. These conditional registrants include interns and temporary resident doctors, who are not required to renew their registration at the standard renewal date.

The Australian Capital Territory did not conduct a survey in 1996, so estimates based on the 1995 survey have been included to provide national data.

Method

Each State and Territory medical board conducts an annual renewal of practitioner registration and the survey questionnaire was sent to all medical practitioners as part of the registration renewal process.

Timing

The statistics in this publication relate to registration renewals during the period October–December 1996. The renewal notices and the survey were dispatched in all States and Territories in September 1996. This dispatch date is generally three months before the expiry of registration. Survey data on practice activity refer to the four-week period before completion of the questionnaire by each medical practitioner.

Response rate

The responses to the AIHW medical labour force survey represented 77.1% of the total medical registrations in all States and Territories. The medical boards did not include all registered practitioners in the survey because interns and some conditionally registered practitioners were not sent registration renewals. In some States, practitioners known to the boards to be not practising because they were retired, overseas or had moved interstate were not included in the survey. Therefore the AIHW believes that the national response rate of those surveyed was approximately 87% after also allowing for those practitioners who were registered in more than one jurisdiction but who returned a questionnaire in only one jurisdiction. The estimated State response rates for those surveyed ranged from 93% in New South Wales to 51% in Western Australia.

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

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

The 1996 data for registered medical practitioners were available by age and sex for some States so it has been possible to calculate response rates for those on the register by these characteristics (see Table 36).

Table 36: Survey responses as a percentage of total registrations: sex and age, selected States, 1996

	Age (years)									
State/sex	**<25[(a)]**	**25–29**	**30–34**	**35–44**	**45–54**	**55–64**	**65–74**	**75–84**	**85+**	**Total**
New South Wales										
Male	1.0	49.1	73.5	90.1	97.5	97.9	98.2	99.8	100.0	89.0
Female	2.6	44.9	76.5	89.6	97.7	97.9	98.6	100.0	100.0	80.6
Total	*1.7*	*47.3*	*74.7*	*90.0*	*97.6*	*97.9*	*98.3*	*99.9*	*100.0*	*86.8*
Victoria										
Male	0.0	58.9	74.6	82.8	86.2	87.4	88.3	88.1	88.2	81.8
Female	1.9	61.2	79.0	85.3	89.5	87.1	90.4	84.6	100.0	79.8
Total	*1.1*	*59.9*	*76.4*	*83.6*	*86.9*	*87.4*	*88.6*	*87.6*	*89.7*	*81.3*
Queensland										
Male	88.6	72.7	80.4	82.2	85.8	85.4	80.8	72.4	38.1	81.9
Female	83.1	78.4	77.9	86.8	87.8	80.9	75.9	67.7	0.0	82.7
Total	*86.1*	*75.2*	*79.4*	*83.7*	*86.2*	*84.6*	*80.3*	*71.9*	*36.4*	*82.1*
South Australia										
Male	3.7	50.0	52.1	68.9	76.8	73.7	76.6	75.8	30.0	68.8
Female	20.0	53.3	64.3	73.0	80.5	77.9	79.2	70.0	0.0	68.7
Total	*12.9*	*51.3*	*56.5*	*70.2*	*77.5*	*74.3*	*76.6*	*75.0*	*30.0*	*66.7*
Tasmania										
Male	0.0	35.4	41.2	68.3	74.3	71.8	73.1	78.4	100.0	64.7
Female	0.0	42.0	55.9	76.6	71.1	85.2	73.9	50.0	0.0	61.3
Total	*0.0*	*38.1*	*47.2*	*70.6*	*73.6*	*73.5*	*73.2*	*76.4*	*100.0*	*64.7*

(a) Interns were not surveyed in New South Wales, Victoria, South Australia and Tasmania.

It is apparent that medical practitioners under the age of 35 years had a lower response to the survey than had medical practitioners aged 35 years and over. Practitioners aged less than 25 years represented 1.4% of registrations, those aged 25–29 years represented 10.7% and those aged 30–34 years represented 11.7%.

AIHW labour force estimates

Medical practitioners may register in more than one State or Territory. Thus, in estimating the medical labour force, it is important to reduce as much as possible the consequent duplication in statistics.

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

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 registrations by distributing the non-response numbers on the basis of this assumption. In 1996, sex and age data were available for all registered medical practitioners for five States (excluding Western Australia), and for these States the estimation process was based on the response rate by sex and age group. The estimation process may overestimate the numbers of medical practitioners in the workforce 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 medical labour force. This survey error will be greater in the two Territories, which have higher proportions of doctors registered in other jurisdictions, and lower proportions of doctors practising solely in the Territories.

The 1996 estimates for practising clinicians were benchmarked against the comparable data from the 1996 Census of Population and Housing conducted in August 1996. The census data was adjusted in accordance with the census under enumeration in each State and Territory and for non-reporting of occupation. The AIHW medical labour force survey data for clinicians was then benchmarked to the census estimate and the survey data for all other occupations was adjusted in proportion to the clinicians.

Revisions to 1993 to 1995 data

Estimates for 1993 to 1995 are revised in this publication. These estimates were prepared by subtracting the annual net increase in Medicare providers from the 1996 benchmark. Medicare provider data were used because the increase of 4,924 providers from 1991–92 to 1996–97 was very similar to the increase of 5,356 in medical practitioners enumerated at the censuses in 1991 and 1996. A projection of the 1991 census clinician data was prepared, using the same method, the check these estimates. The high correlation between the two series gives confidence in the accuracy of the revised data.

Comparability with data for previous years

The data in this publication are not directly comparable with previously published data for 1993 to 1995.

Revised data of the major characteristics have been prepared for 1993 to 1995 as described above. Any comparisons between detailed characteristics of previous years and 1996 data should be adjusted by the ratio of the major characteristic in the previously published data to that shown in the revised data in this publication.

Definitions

Age

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

Career medical officer (CMO)

Also known as hospital medical officer (HMO) in some States. See O*ther salaried hospital career practitioner*.

Clinician

A medical practitioner who is involved in the diagnosis and/or treatment of patients, including recommending preventative action. In this publication, a medical practitioner who engages in clinical practice in any job is classified as a clinician.

Country

The *Australian Standard Classification of Countries for Social Statistics, ABS* catalogue no. 1269.0, has been used to classify country of initial qualification into the following categories:

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

Deputising service

A medical practitioner, or group of practitioners, who provides after-hours primary care, but not continuing care, to the patients of the subscribing primary care medical practitioners.

Direct patient care hours

The hours per week spent in clinical practice that were self-reported by responding medical practitioners as the average over the four weeks before the survey (including time spent on patient referrals and clinical notes; excluding time spent in administration of a practice and travel to call-outs).

General practitioner (RACGP) trainees

A medical practitioner under the supervision of an RACGP Fellow in a job recognised as leading to the RACGP Fellowship. The Health Insurance Commission classifies these trainees as vocationally registered general practitioners in the Medicare data in this report. See also *Recognised general practitioner* and *Vocationally recognised general practitioner*.

Geographic region classification

The *Rural, Remote and Metropolitan Areas Classification,* November 1994, of the Department of Primary Industries and Energy and the Department of Health and Family Services 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 zones

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–Bombaderry, 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 zones

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).

Hospital non-specialist

Medical practitioners mainly employed in a salaried position in a hospital who do not have a recognised specialist qualification and who are not undertaking a training program to gain a recognised specialist qualification. They include resident medical officers and interns and other salaried hospital career practitioners and exclude specialists-in-training.

Hours on call not worked

The hours per week for which a medical practitioner was on standby for a call to duty and which were not worked during the four weeks before the survey. Once called to duty, the time spent on duty is counted in total hours worked and direct patient care hours.

Hours worked

The hours per week that were self-reported by responding medical practitioners as the average hours worked in each medical related job over the four weeks before the survey. Hours worked exclude time spent on travel between work locations (except travel to call-outs) and unpaid professional and/or voluntary activities. In the editing of survey responses, maximum hours worked in all jobs have been limited to 126 hours per week.

Intern

A resident medical practitioner in a hospital, usually in the first year of service after graduating from medical school.

Locum tenens

A medical practitioner who acts as a substitute for another medical practitioner while that practitioner is temporarily absent from their practice.

Medical labour force

Defined for each State and Territory as:

- medical practitioners employed in medicine; plus
- medical practitioners not employed in medicine but looking for work in medicine.

Medical practitioners employed in medicine

A registered medical practitioner in an occupation that uses the skills and knowledge of the person's medical qualification. This category includes those on maternity or other extended leave of three months or more.

Medicare providers

Medical practitioners who billed Medicare for at least one private practice occasion of service during a given financial year. The majority of their practice activity under Medicare is used to classify Medicare providers. For example, a medical practitioner with specialist qualifications whose Medicare private practice income was mainly from unreferred attendances will be classified as either a general practitioner or OMP. Conversely, a general practitioner whose Medicare private practice income was mainly in a field of specialist practice will be classified as a non-specialist in that specialty, not as a general practitioner.

Medicare provider data differ from that collected in the AIHW medical labour force survey in several important respects. The labour force survey data are self-reported and are generally presented for the practitioner's main job as measured by the total hours per week at that job. A salaried hospital non-specialist doctor who does some fee-for-service items in the Medical Benefits Schedule billed to Medicare will appear in the survey data as a hospital non-specialist or a specialist-in-training, and in Medicare data as a recognised general practitioner, OMP or specialist in the appropriate specialist peer group. Similarly, a practitioner with specialist qualifications whose services billed to Medicare are for mainly unreferred attendances will self-report as a specialist in the labour force survey but be classified as a recognised general practitioner or OMP in Medicare data. The data in Medicare for specialists include non-specialists whose main income from Medicare is for services in a specialist field.

Medicare services

Services provided on a 'fee-for-service' basis for which Medicare benefits were paid in the period in question, excluding:

- services rendered free of charge in recognised hospitals;
- services rendered under an entitlement conferred by legislation other than the Health Insurance Act: for example, services rendered to repatriation beneficiaries or defence personnel, or services covered by third party or workers' compensation provisions for which a provisional Medicare benefit has not been paid;
- services rendered for insurance or employment purposes;
- health screening services; and
- services rendered under grant provisions such as the Department of Health and Family Services Program Grant arrangements.

Medicare data reflect the year of processing rather than the year of the service.

The data incorporate the effect of Medicare adjustments, which are made to correct errors in previously processed claims and to reflect adjustments resulting from cheque cancellations. Apart from obstetrics services, these are generally not significant. Any practitioner who had net negative claims in any year (for example, resulting from the fact that one or more stale cheques had been cancelled by the Health Insurance Commission and no other claims for the practitioner were processed in the period) is not included in tables for that year.

Occupation

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

- clinician: a medical practitioner mainly involved in the care and treatment of individuals, including diagnosis and preventative action;
- administrator: a person mainly employed in medical administration;
- teacher/educator: a person teaching or training persons in medicine for their initial qualification or in advanced skills after initial qualification;
- researcher: a person engaged in medical research;
- public health physician: a medical practitioner primarily engaged in identifying disease and illness, and the conditions for disease and illness, and in implementing preventative measures which affect the health of the general public;

- occupational health physician: a medical practitioner primarily engaged in identifying disease and illness, and the conditions for disease and illness, and implementing preventative measures which arise from employment in particular occupations or industries; and
- other: a job function in medicine which is not one of the above—for example, industrial relations.

Other medical practitioner (OMP)

Primary care practitioners who did not self-report as being vocationally registered or training to become vocationally registered.

In the Medicare data, an OMP is a doctor who bills privately for mainly unreferred attendances in the Medical Benefits Schedule and who is not recognised by the Health Insurance Commission as a general practitioner. The Health Insurance Commission recognises as general practitioners those medical practitioners who are vocationally registered or RACGP Fellows or trainees for vocational registration who are employed in a recognised general practice. Given that OMPs are not recognised general practitioners, they receive a lower payment from Medicare for each unreferred attendance.

This category in the Medicare data includes medical practitioners whose main job may be in primary care, a special interest area of primary care, salaried hospital employment, other salaried employment, public health medicine, occupational health medicine, medical administration, research or education, and employment outside medicine.

Other salaried hospital career practitioner

Generally, a medical practitioner who mainly works in a hospital after completing all professional training and who is referred to as a career medical officer (CMO) or hospital medical officer (HMO) in most States. This category includes some practitioners who have completed an internship and have been registered to practise under supervision.

Primary care practitioner

A practitioner engaged in general practice or in the primary care of patients. This category includes practitioners recognised by Medicare as VRGPs, RACGP Fellows, RACGP trainees and other medical practitioners whose patient attendances are unreferred.

Recognised general practitioner

A medical practitioner recognised as a general practitioner by the Health Insurance Commission in respect of Medicare payments for unreferred attendances. Recognised general practitioners attract a higher Medicare payment than other medical practitioners for unreferred attendances. Recognised general practitioners include vocationally registered general practitioners, Fellows of the RACGP and medical practitioners in training for vocational registration who are employed in a recognised general practice and therefore supervised by recognised general practitioners.

Resident medical officer (RMO)

A medical practitioner undergoing further training in a hospital after completing an internship but who has not commenced a recognised general practice or specialist practice training program.

Special interest area

A primary care practitioner's self-reported main field of practice, excluding general practice. In the labour force survey, primary care practitioners are asked whether they practise mainly in general practice or in a special interest area.

The area of interest may be a particular clinical condition (for example, diabetes), a medical procedure (for example, endoscopy) or an identified population (for example, Indigenous health). Where the interest area equates to a recognised medical specialty, it has been classified according to the specialty classification.

Specialist

A medical practitioner with a qualification awarded by, or which equates to that awarded by, the relevant specialist professional college in Australia. Specialist recognition is normally based on the completion of a program of appropriate supervised training covering a minimum of six years after initial medical graduation and an examination leading to the award of a higher qualification.

The Health Insurance Commission recognises as a specialist a medical practitioner who has made formal application for recognition as a specialist and who:

- is registered as a specialist under State or Territory law; or
- holds a fellowship of a specified specialist college; or
- is considered eligible for recognition as a specialist or consultant physician by a specialist recognition advisory committee.

Where a medical practitioner has been recognised as a specialist or consultant physician for the purposes of the Health Insurance Act, Medicare benefits are payable at the appropriate higher rate for certain services rendered in the practice of the specialty, provided the patient has been referred by:

- another medical practitioner; or
- a registered dental practitioner, where the referral arises out of a dental service; or
- a registered optometrist, where the specialist is an ophthalmologist.

Specialist-in-training

A medical practitioner who has been accepted by a specialist medical college into a training position supervised by a member of the college.

Vocationally registered general practitioner (VRGP)

A primary care practitioner who has been registered by the Health Insurance Commission as a recognised general practitioner. The criteria for registration as a vocationally registered general practitioner are certification from either the Royal Australian College of General Practitioners, a Vocational Registration Eligibility Committee, or the Vocational Registration Appeal Committee, that the practitioner's medical practice is predominantly general practice, and that the practitioner has appropriate training and experience in general practice.

In assessing whether a practitioner's medical practice is predominantly general practice, only services eligible for Medicare benefits are considered. To qualify, 50% of the clinical time and services claimed against Medicare must be in general practice as defined. The RACGP and Vocational Registration Eligibility Committee or Vocational Registration Appeal Committee will have regard to whether the practitioner provides a comprehensive primary medical service, including: treating a wide range of patients and conditions using a variety of accepted skills and techniques; providing services away from the practitioner's surgery on

request (for example, home visits); and making appropriate provision for the practitioner's patients to have access to after-hours medical care.

The training and experience which the RACGP regards as appropriate for eligibility is the attainment of Fellowship of the RACGP or other postgraduate qualifications and training of a standard equivalent to that accepted for the award of the Fellowship.

Continued vocational registration depends on the practitioner's involvement in appropriate continuing medical education and quality assurance programs approved by the RACGP, and on the practitioner continuing to work predominantly in general practice.

Work setting

The functional use of the premises where a medical job is located.

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Related publications

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

National Health Labour Force Series

No. 1: *Pharmacy Labour Force 1992*

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Joint publications with the Australian Medical Workforce Advisory Committee

Australian Medical Workforce Benchmarks (AMWAC Report 1996.1, January 1996)

Female Participation in the Australian Medical Workforce (AMWAC Report 1996.7 September 1996)

Characteristics of Students Entering Australian Medical Schools 1989 to 1997 (AMWAC Report 1997.7, AIHW cat. no. HWL 6, December 1997)

New Zealand Medical Graduates in the Australian Medical Workforce (AMWAC Report 1998.3, AIHW cat. no. HWL 7, May 1998)

Other publications

Australia's Health 1994

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