

3.10 Aboriginal and Torres Strait Islander people in the health workforce

Number and proportion of Aboriginal and Torres Strait Islander Australians in the health workforce

Data sources

Census of Population and Housing

The Australian Bureau of Statistics (ABS) Census of Population and Housing is conducted by the ABS at 5-yearly intervals, with 2006 being the most recent, and is designed to include all Australian households. The Census uses the ABS standard Indigenous status question and it is asked for each household member.

Although the Census data are adjusted for undercount at the person level to arrive at the estimated resident population, no such adjustment is done at the household level. This affects the accuracy of the person counts at the household level to provide adjusted household estimates.

The 1996 and 2001 Census used the Australian Standard Classification of Occupations, but this was replaced by the Australian and New Zealand Standard Classification of Occupations for the 2006 Census.

Analyses

Aboriginal and Torres Strait Islander health workforce

Data on the number and proportion of Indigenous Australians employed in health-related occupations in 1996, 2001 and 2006 are presented in Table 3.10.1 below.

- In 2006, there were 5,536 Indigenous Australians employed in health-related occupations, which represented 1% of the total health workforce.

Health workforce by occupation

- During the period 1996 to 2006 the number of Indigenous health workers employed in all health occupations increased significantly. The largest increase was observed in health diagnostic and promotion professionals: in 1996 there were 164 Indigenous health workers; this increased to 638 by 2006 (a 289% increase over the period). The second largest increase was allied health professionals (for example psychologists and physiotherapists): 179 were employed in 1996; this increased to 441 in 2006 (a 146% increase over the period).
- In 2006, out of the combined total of Indigenous health workers (5,536), there were 1736 Indigenous people working in occupations classified as 'other', including a substantial amount of nursing support workers and personal care workers. Following this, the next largest occupations were nurses, which include midwives, (1,449) and Aboriginal and Torres Strait Islander health workers (966). Aboriginal and Torres Strait Islander health workers may be employed as specialists in areas such as alcohol, mental health, diabetes, eye and ear health, sexual health, or they may work as generalist members of primary care teams, or as hospital liaison officers.
- The number per 10,000 head of population of both Indigenous and non-Indigenous health workers in all health occupations combined increased between 1996, 2001 and 2006, with the greatest increase observed between 2001 and 2006 for both the Indigenous and non-Indigenous population (Figure 3.10.1).

Table 3.10.1: Employed persons aged 15+, by health-related occupation^(a) and Indigenous status, Australia, 1996, 2001 and 2006

Occupation ^(a)	1996	2001	2006	Period linear per cent change ^(b)	Number per 10,000 2006 ^(c)		Rate difference (per 10,000) ^(d)
					Indigenous	Non-Indigenous	
Aboriginal and Torres Strait Islander health worker	667	853	966	44.8*	21.5	n.a.	n.a.
Nurse	1,258	1,123	1,449	15.2*	32.3	121.1	88.8
Registered nurse ^(e)	640	832	1,111	73.6*	24.7	94.5	69.8
Nurse managers and nursing clinical director	20	38	56	180.0*	1.2	7.2	6.0
Midwife	27	40	50	85.2*	1.1	6.7	5.6
Enrolled and mothercraft nurse	564	202	215	-61.9*	4.8	10.5	5.7
Nurse educator and researcher	7	11	17	142.9*	0.4	2.1	1.7
Medical practitioner	61	90	101	65.6*	2.2	30.2	28.0
Generalist medical practitioner	41	57	82	100*	1.8	19.7	17.9
General medical practitioner ^(f)	29	47	61	110.3*	1.4	16.4	15.0
Resident medical officer	12	10	21	75.0*	0.5	3.3	2.8
Other medical practitioner ^(g)	20	33	19	-0.5	0.4	10.5	10.1
Allied health professional	179	274	441	146.4*	9.8	36.0	26.2
Dietician	n.p.	18	7	n.p.	0.2	1.4	1.3
Optometrist	n.p.	n.p.	8	n.p.*	0.2	1.7	1.5
Psychologist ^(h)	13	19	43	230.8*	1.0	7.4	6.4
Physiotherapist	16	29	54	237.5*	1.2	6.7	5.5
Podiatrist	6	8	6	0	0.1	1.1	1.0
Speech Professional and Audiologist	7	10	17	142.9*	0.4	2.7	2.3
Occupational therapist	n.p.	n.p.	13	160.0*	0.3	3.8	3.5
Social worker	113	166	269	138.1*	6.0	6.7	0.7
Other health therapy professional ⁽ⁱ⁾	12	12	24	143.4*	0.5	4.6	4.0
Dental and dental allied workforce	147	155	205	39.5*	4.6	16.1	11.6
Dental practitioner	12	13	15	25.0*	0.3	4.5	4.2
Dental hygienist, technician and therapist	18	17	19	5.6	0.4	3.3	2.9
Dental assistant	117	125	171	46.2*	3.8	8.3	4.5
Health diagnostic and promotion professional	164	185	638	289.0*	14.2	22.4	8.2
Medical imaging professional	7	14	19	171.4*	0.4	5.6	5.2
Pharmacist	6	10	9	50.0*	0.2	8.4	8.2
Occupational health and safety advisor	22	25	50	127.3*	1.1	3.7	2.6
Health promotion officer ^(j)	n.a.	n.a.	438	n.a.	9.8	1.9	-7.9

(continued)

Table 3.10.1 (continued): Employed persons aged 15+, by health-related occupation^(a) and Indigenous status, Australia, 1996, 2001 and 2006

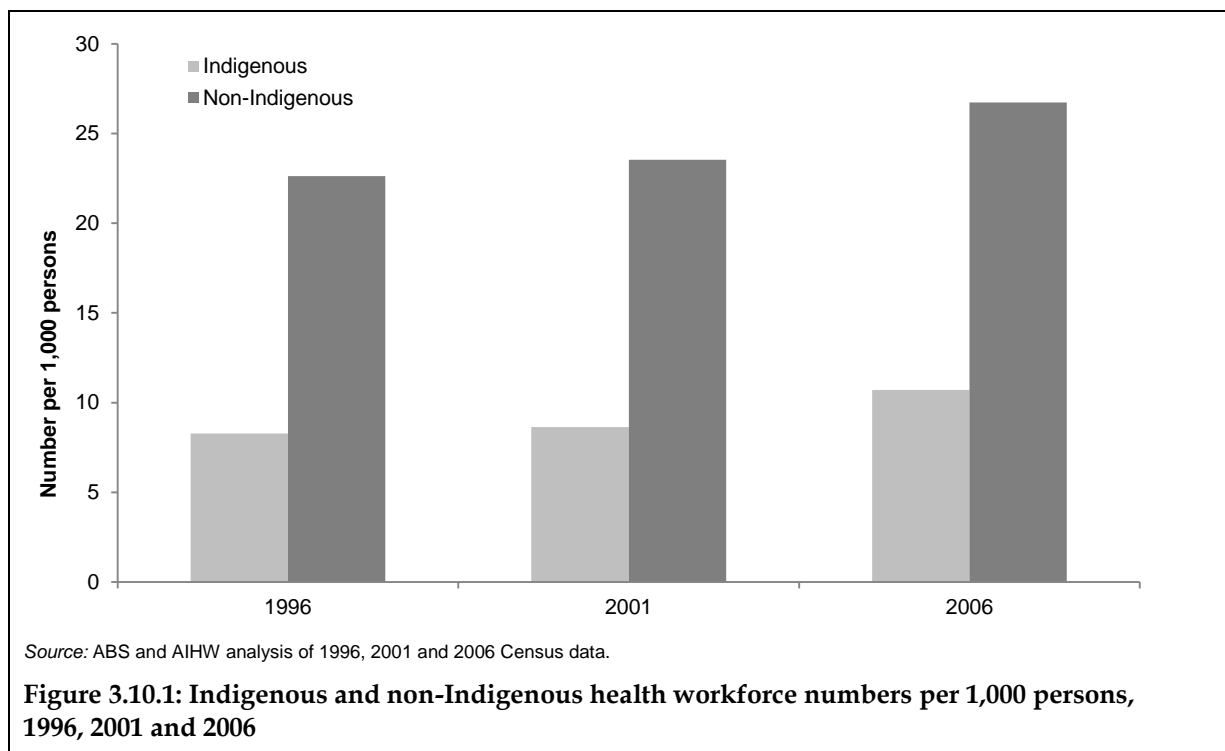
Occupation ^(a)	1996	2001	2006	Period linear per cent change ^(b)	Number per 10,000 2006 ^(c)		Rate difference (per 10,000) ^(d)
					Indigenous	Non-Indigenous	
Environmental health officer	122	114	98	-19.7*	2.2	2.1	-0.1
Other health diagnostic and promotion professional ^(k)	7	22	24	242.9*	0.5	0.7	0.2
Other	895	1324	1736	94.0*	38.7	71.9	33.3
Health service manager ^(l)	21	n.p.	17	19.0*	2.9	4.6	1.6
Nursing support worker and personal care worker ^(m)	579	808	974	68.2*	21.7	31.0	9.3
Ambulance officers and paramedic	49	83	153	212.2*	3.4	4.6	1.2
Drug and alcohol counsellor	80	96	117	46.3*	2.6	0.7	-1.9
Other ⁽ⁿ⁾	166	n.p.	475	186.1*	8.0	31.0	23.0
Total health-related occupations^(o)	3,371	4,004	5,536	64.2*	123.3	297.8	174.6

* represents results that are statistically significant

- (a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO). Health workforce defined by the client.
- (b) Average period change determined using regression analysis. Per cent change between the reporting periods 1996 and 2006 based on the average annual change over the period.
- (c) Number per 10,000 measures the health workforce available (numerator) to service the population (denominator). Denominator used in rates is the 2006 total population by Indigenous status minus those where occupation is not stated.
- (d) Rate difference is non-Indigenous rate minus the Indigenous rate.
- (e) Both 2001 and 2006 figures include midwifery and nursing professional n.f.d.
- (f) Generalist medical practitioner includes general medical practitioner and resident medical practitioner, and specialist physician (general medicine).
- (g) The 2006 figure includes anaesthetist, pathologist, psychologist, neurosurgeon, medical practitioner n.f.d. The 2001 figure includes emergency medical specialist, obstetrician and gynaecologist, pathologist, radiologist, psychiatrist, surgeon (general), medical practitioner n.f.d., and 1996 figure includes specialist medical practitioner.
- (h) The 2006 figure includes clinical psychologist, psychotherapist, educational psychologist, organisational psychologist, psychologist n.f.d. and psychologist, n.e.c. However, both the 1996 and 2001 figures are clinical psychologist and psychotherapist combined.
- (i) The 2006 figure includes chiropractor, osteopath, homeopath, naturopath, complementary health therapist n.e.c. 2001 figure includes chiropractor and naturopath and the 1996 figure includes chiropractor and natural therapy professional.
- (j) Health promotion officer could not be identified separately in 2001 and 1996 due to different occupation classifications. These were included in community worker in 2001 and 1996 and not included in the table.
- (k) Other health diagnostic and promotion professional includes health diagnostic and promotion professional, n.e.c. The 2006 figure also includes health professional n.f.d. and health diagnostic and promotion professional, n.f.d.
- (l) The 2006 figure includes medical administrator only. Health and welfare services manager, n.e.c. and health and welfare services manager, n.f.d. were included in other. 2001 figure is for medical administrator but not published separately due to quality issues and has been included in other. The 1996 figure is for medical administrator.
- (m) Nursing support worker and personal care worker includes therapy aide, in 2006 includes hospital orderly, which in 2001 and 1996 was grouped with nursing assistant and personal care assistant occupations because there was no such a category.
- (n) The 2006 figure includes medical laboratory scientist, counsellor n.e.c., medical laboratory technician, anaesthetic technician, cardiac technician, operating theatre technician, pharmacy technician, medical technicians n.e.c., optical dispenser, optical mechanic, diversional therapist, massage therapist, personal carer and assistant n.f.d., special care worker n.f.d., natural remedy consultant.
- (o) The 2001 figure includes health information manager, medical laboratory scientist, medical technical officer, primary products inspector, anatomist or physiologist, safety inspector, admissions clerk, weight loss consultant, massage therapist, natural remedy consultant.

Note: Numbers less than 10 are considered too unreliable for general use due to the impact of randomisation of small cell values to avoid the release of confidential data. Totals may differ and may not equal the sum of components because of randomisation.

Source: AIHW analysis of the ABS census data.



Health workforce by age and sex

- In 2006, the majority of Indigenous people employed in the health workforce were aged 35–44 years (1,673 people). The proportion of health workers who were Indigenous was highest among those aged 15–24 years (1.4%) and lowest among those aged 55–64 years (0.7%) (Table 3.10.2; Figure 3.10.2).
- Indigenous females represented a higher proportion of the health workforce than Indigenous males across all age groups (Table 3.10.3).
- The highest number of people employed in the total health workforce was aged 45–54 years. Females represented over three-quarters (76%) of the total health workforce (Table 3.10.2).

Table 3.10.2: Employed persons aged 15+, by health-related occupation^(a) Indigenous status, age and sex, Australia, 2006

	Age group					Total
	15–24	25–34	35–44	45–54	55–64	
Indigenous health workforce^(b)						
	Number					
Male	131	333	447	358	132	1,401
Female	462	910	1,226	1,087	397	4,082
Total	593	1,243	1,673	1,445	529	5,483
	Proportion of Indigenous health workforce (%)^(c)					
Male	2.4	6.0	8.1	6.5	2.4	25.6
Female	8.3	16.4	22.1	19.6	7.2	74.4
Total	10.7	22.5	30.2	26.1	9.6	100.0
	Proportion of total health workforce (%)^(d)					
Male	1.9	1.2	1.3	1.0	0.6	1.1
Female	1.3	1.0	1.1	0.9	0.7	1.0
Total	1.4	1.1	1.2	0.9	0.7	1.0
Total health workforce						
	Number					
Male	6,909	27,714	34,913	36,361	20,995	126,892
Female	35,002	89,645	108,429	121,526	54,324	408,926
Total	41,911	117,359	143,342	157,887	75,319	535,818
	Proportion of total health workforce (%)^(e)					
Male	1.3	5.1	6.4	6.6	3.8	23.7
Female	6.4	16.3	19.8	22.2	9.9	76.3
Total	7.6	21.4	26.1	28.8	13.7	100.0

(a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO). Health workforce defined by the client.

(b) Includes Aboriginal, Torres Strait Islander, and Both Aboriginal and Torres Strait Islander, employed in health-related occupations as defined by the client.

(c) Age/Sex as a proportion of total Indigenous health workforce.

(d) Age/Sex of Indigenous health workforce as a proportion of total health workforce.

(e) Age/Sex as a proportion of total health workforce.

Source: ABS and AIHW analysis of 2006 Census data.



Table 3.10.3: Indigenous and other Australian health workforce age-standardised numbers, by age and sex, per 1,000 population, 2006

		15-24	25-34	35-44	45-54	55-64	65+
Indigenous ^(a)	Indigenous male	2.6	9.3	14.4	16.5	11.5	2.5
	Indigenous female	9.5	24.5	36.2	46.8	31.3	3.9
Other	Other male	4.8	19.4	23.2	25.8	18.6	5.4
	Other female	25.3	63.0	71.2	85.1	48.3	4.1

(a) Includes Aboriginal, Torres Strait Islander, and Both Aboriginal and Torres Strait Islander, employed in health-related occupations as defined by the client.

Source: ABS and AIHW analysis of 2006 Census data.

Indigenous health workforce by state/territory

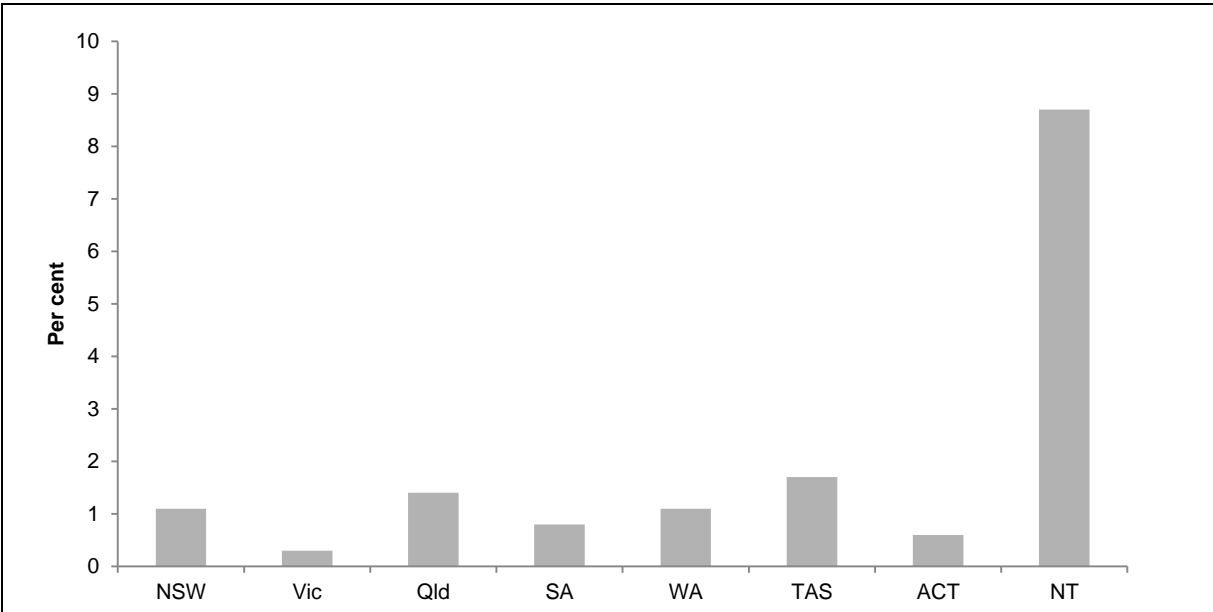
- In 2006, the Northern Territory had the highest proportion of Indigenous persons in the health workforce (9%), and Victoria had the lowest (0.3%) (Table 3.10.4; Figure 3.10.3). The proportion of Indigenous people in the health workforce was below the proportion of the population who were Indigenous in all states and territories.
- The proportion of Indigenous Australians aged 15+ who were employed in health-related occupations in 2006 ranged from 1.2% in Northern Territory to 2.4% in Victoria (Table 3.10.4).

Table 3.10.4: Employed persons aged 15+, by Indigenous status, health-related occupation^(a) and state/territory of usual residence

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Other	Australia
Indigenous persons employed in health workforce ^(a)	1,954	460	1,489	367	573	215	425	53	3	5,539
Indigenous health workforce as a proportion of total health workforce (%)	1.1	0.3	1.4	0.8	1.1	1.7	8.7	0.6	7.9	1.0
Indigenous health workforce as a proportion of the Indigenous population aged 15+ (%)	2.3	2.4	1.9	2.3	1.5	2.0	1.2	2.1	1.9	2.0
Proportion of state/territory population aged 15+ that is Indigenous (%)	1.6	0.5	2.5	1.3	2.4	2.8	24.1	0.9	9.2	1.8

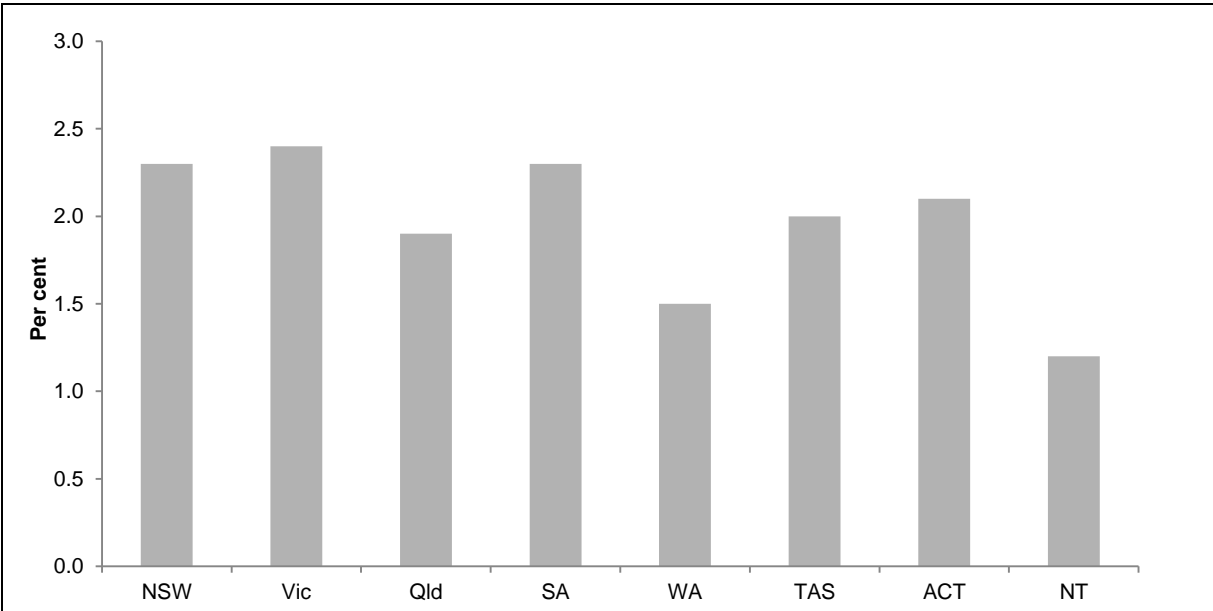
(a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO). Health workforce defined by the client.

Source: ABS and AIHW analysis of 2006 Census data.



Source: ABS and AIHW analysis of 2006 Census data.

Figure 3.10.3: Indigenous health workforce as a proportion of total health workforce, by state/territory, 2006



Source: ABS and AIHW analysis of 2006 Census data.

Figure 3.10.4: Indigenous health workforce as a proportion of the Indigenous population aged 15+, by state/territory, 2006

Time series analyses

Tables 3.10.5a, 3.10.5b and 3.10.5c show the proportion of the Australian health workforce who are Indigenous persons by health-related occupation for the 2006, 2001 and 1996 censuses.

- In 2006 there were approximately 5,536 Indigenous Australians employed in health-related occupations, representing 1.0% of the total health workforce. Of these, the largest numbers of Indigenous Australians (1,233) were employed as midwifery and nursing professionals representing 0.6% of the nursing and midwife workforce. This was followed by Aboriginal and Torres Strait Islander health workers (965). However, as in 1996 and 2001 a significantly greater proportion of Indigenous Australians were employed as Aboriginal and Torres Strait Islander health workers (95.5%). Unlike 1996 and 2001, Indigenous Australians represented 11.2% of health promotion officers. It is likely that this difference is due to changes in classification (Table 3.10.5a).
- In 2001, there were approximately 3,998 Indigenous Australians employed in health-related occupations, representing 0.9% of the total health workforce. A similar pattern to 1996 was observed with the highest proportion of Indigenous health workers employed as Aboriginal and Torres Strait Islander Health Workers (93.2%) (Table 3.10.5b).
- In 1996, there were approximately 3,371 Indigenous Australians employed in health-related occupations, representing 0.8% of the total health workforce. Of these the largest number of Indigenous Australians were employed as Aboriginal and Torres Strait Islander Health Workers (669 persons) representing 94.9% of all Aboriginal and Torres Strait Islander health workers. This was significantly greater than all other occupations, such that environmental health officers had the second largest proportion of Indigenous workers, but only represented 2.4% of all environmental health officers (Table 3.10.5c).
- During 1996, 2001 and 2006, the largest number of Indigenous health workers were within the 35–44 year age group. In all three years, the proportion of health workers who were Indigenous was highest among those aged 35–44 years and lowest among those aged 65+ years (Table 3.10.6).
- In 2006, Indigenous females represented a higher proportion of the health workforce than Indigenous males across all age groups, equal to around three-quarters (74%) of the total Indigenous health workforce. Females also represented a higher proportion of health workers in 2001 and 1996 (Table 3.10.6).
- A similar pattern is evident for all persons in the health workforce; in 2006, 2001 and 1996, approximately three-quarters of the total health workforce were female (Table 3.10.7).

Table 3.10.5a: Employed persons aged 15+, by Indigenous status and health-related occupation^(a), Australia, 2006

Health-related occupation ^(a)	Indigenous ^(b)	Non Indigenous	Not stated	Total	Indigenous proportion ^(c)
	Number				Per cent
Aboriginal and Torres Strait Islander health worker	965	41	5	1,011	95.5
Health and welfare service manager	132	8,287	42	8,461	1.6
Psychologist	44	13,345	52	13,441	0.3
Environmental health officer	96	3,782	28	3,906	2.5
Health promotion officer	437	3,444	17	3,898	11.2
Other health diagnostic and promotion professional	49	23,136	101	23,286	0.2
Physiotherapist	51	12,178	57	12,286	0.4
Dental worker	202	29,208	213	29,623	0.7
Other health therapy professional	130	33,211	186	33,527	0.4
General medical practitioner	61	29,718	142	29,921	0.2
Other medical practitioner	41	25,001	102	25,144	0.2
Midwifery and nursing professional	1,233	200,229	1,276	202,738	0.6
Enrolled and mothercraft nurse	215	19,049	131	19,395	1.1
Nursing support and personal care worker	823	45,138	505	46,466	1.8
Ambulance officer and paramedic	153	8,366	30	8,549	1.8
Other health occupations	905	85,311	509	86,725	1.0
Total, health-related occupations	5,537	539,444	3,396	548,377	1.0

(continued)

Table 3.10.5a (continued): Employed persons aged 15+, by Indigenous status and health-related occupation^(a), Australia, 2006.

- (a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO). Health workforce defined by the client.
- (b) Includes Aboriginal, Torres Strait Islander, and Both Aboriginal and Torres Strait Islander (same for 1996 and 2001 data.)
- (c) Indigenous persons as a proportion of the total (same for 1996 and 2001 data).

Note: Numbers less than 10 are considered too unreliable for general use due to the impact of randomisation of small cell values to avoid the release of confidential data. Totals may differ and may not equal the sum of components because of randomisation.

Source: ABS and AIHW analysis of 2006 Census data.

Table 3.10.5b: Employed persons aged 15+, by Indigenous status and health-related occupation^(a), Australia, 2001

Health-related occupation ^(m)	Indigenous	Non-Indigenous			Total	Proportion who were Indigenous
		Not Stated	Number	Per cent		
349311 Aboriginal and Torres Strait Islander health worker	853	59	3	915	93.2	
129213 Medical administrator	61	3,652	8	3,721	1.6	
251411 Clinical psychologist	19	7,519	32	7,570	0.3	
254313 Environmental health officer	114	3,172	16	3,302	3.5	
Other health diagnostic and promotion professional ^(b)	57	20,982	83	21,122	0.3	
238511 Physiotherapist	29	10,192	27	10,248	0.3	
Dental worker ^(c)	156	25,592	126	25,874	0.6	
Other health therapy professional ^(d)	77	22,569	105	22,751	0.3	
231111 General medical practitioner	44	28,988	97	29,129	0.2	
Other medical practitioner ^(e)	39	14,418	66	14,523	0.3	
232411 Registered midwife	40	11,574	35	11,649	0.3	
Registered nurse ^(f)	832	148,349	755	149,936	0.6	
Nurse educators and researcher ^(g)	11	2,596	7	2,614	0.4	
Nurse manager and clinical director ^(h)	38	9,997	34	10,069	0.4	
341111 Enrolled nurse	202	19,198	98	19,498	1.0	
Nursing support and personal care worker ⁽ⁱ⁾	793	49,380	482	50,655	1.6	
Ambulance officer and paramedic ^(j)	83	6,597	26	6,706	1.2	
Other health occupation ^(k)	550	61,283	238	62,071	0.9	
Total	3,998	446,117	2,238	452,353	0.9	

(continued)

Table 3.10.5b (continued): Employed persons aged 15+, by Indigenous status and , health-related occupation^(a), Australia, 2001

- (a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO 2006). Health workforce defined by the client.
- (b) Includes ASCO V2 codes 239979,239311,238411,238211,238213,238215.
- (c) Includes 639111,349211,349213,349215,349200,238111,238113.
- (d) Includes 238711,239411,238311,238611,238811,239911,349411,639513.
- (e) Includes 231181,231225,231215,231217,231223,231227,231229,231231,231200.
- (f) Includes 232000, 232311, 232511, 232611.
- (g) Includes 232211, 232213.
- (h) Includes 232111, 129211.
- (i) Includes 631411, 631413.
- (j) Includes 349111, 349113
- (k) Includes 239111, 239117, 251111, 631319, 251313, 211511, 254311, 229911, 311111, 311100, 311179, 399111, 211311, 399211, 619113, 639515.

Note: Numbers less than 10 are considered too unreliable for general use due to the impact of randomisation of small cell values to avoid the release of confidential data. Totals may differ and may not equal to the sum of components because of randomisation.

Source: ABS and AIHW analysis of 2001 Census data.

Table 3.10.5c: Employed persons aged 15+, by Indigenous status and health-related occupation^(a), Australia, 1996

Health-related occupation ^(a)	Indigenous	Non Indigenous	Not stated	Total	Indigenous
					Proportion
	Number				Per cent
349311 Aboriginal and Torres Strait Islander health worker	669	36	0	705	94.9
129213 Medical administrator	21	1,888	11	1,920	1.1
251411 Clinical psychologist	13	5,221	21	5,255	0.2
254313 Environmental health officer	122	4,979	29	5,130	2.4
Other health diagnostic and promotion professional ^(b)	19	18,983	71	19,073	0.1
238511 Physiotherapist	16	8,844	36	8,896	0.2
Dental worker ^(c)	146	23,065	101	23,312	0.6
Other health therapy professional ^(d)	53	17,546	99	17,698	0.3
Generalist medical practitioner ^(e)	29	26,271	101	26,401	0.1
Other medical practitioners ^(f)	32	17,502	76	17,610	0.2
232411 Registered midwife	27	10,842	33	10,902	0.2
Registered nurse ^(g)	640	139,614	818	141,072	0.5
Nurse educator and researcher ^(h)	5	2,052	6	2,063	0.2
Nurse managers and clinical directors ⁽ⁱ⁾	20	9,242	52	9,314	0.2
341111 Enrolled nurse	564	23,868	135	24,567	2.3
Nursing support and personal care worker ^(j)	569	41,758	320	42,647	1.3
Ambulance officer and paramedic ^(k)	49	5,878	32	5,959	0.8
Other health occupation ^(m)	377	47,450	219	48,046	0.8
Total health-related occupations	3,371	405,039	2,160	410,570	0.8

(continued)

Table 3.10.5c (continued): Employed persons aged 15+, by Indigenous status and health-related occupation^(a), Australia 1996

- (a) Occupation as defined by the Australian and New Zealand Classification of Occupations (ANZSCO 2006). Health workforce defined by the client.
- (b) Includes ASCO V2 codes 239979,239311,238411,238211,238213,238215,239913,129200,239915.
- (c) Includes 639111, 349211,349213,349215,38111,238113.
- (d) Includes 238711,238713,239400,239411,239413,239479,238311,238611,238811,239911,349411,639513.
- (e) Includes 231100,231111.
- (f) Includes 231181, 2312(all).
- (g) Includes 232311, 232511, 232611.
- (h) Includes 232211, 232213.
- (i) Includes 232111, 129211.
- (j) Includes 631411, 631413.

Note: Numbers less than 10 are considered too unreliable for general use due to the impact of randomisation of small cell values to avoid the release of confidential data. Totals may differ and may not equal the sum of components because of randomisation.

Source: ABS and AIHW analysis of 1996 Census data.

Table 3.10.6: Employed Indigenous persons aged 15+ in health-related occupations^(a), by age and sex, 1996, 2001 and 2006

	Age group						Total
	15-24	25-34	35-44	45-54	55-64	65+	
1996							
Number							
Male	142	295	311	137	49	6	940
Female	321	674	824	471	120	7	2,417
Total	463	969	1,135	608	169	13	3,357
Proportion of total health workforce (per cent)							
Male	4.2	8.8	9.3	4.1	1.5	0.2	28.0
Female	9.6	20.1	24.5	14.0	3.6	0.2	72.0
Total	13.8	28.9	33.8	18.1	5.0	0.4	100.0
2001							
Number							
Male	116	344	341	230	74	12	1,117
Female	310	727	928	716	172	25	2,878
Total	426	1,071	1,269	946	246	37	3,995
Proportion of total health workforce (per cent)							
Male	2.9	8.6	8.5	5.8	1.9	0.3	28.0
Female	7.8	18.2	23.2	17.9	4.3	0.6	72.0
Total	10.7	26.8	31.8	23.7	6.2	0.9	100.0
2006							
Number							
Male	133	333	447	358	129	19	1,419
Female	461	911	1,226	1,087	397	34	4,116
Total	594	1,244	1,673	1,445	526	53	5,535
Proportion of total health workforce (per cent)							
Male	2.4	6.0	8.1	6.5	2.3	0.3	25.6
Female	8.3	16.5	22.1	19.6	7.2	0.6	74.4
Total	10.7	22.5	30.2	26.1	9.5	1.0	100.0

(a) Occupation definitions as provided by the client.

Source: ABS and AIHW analysis of 1996, 2001 and 2006 Census data.

Table 3.10.7: All employed persons aged 15+ in health-related occupations^(a), by age and sex, 1996, 2001 and 2006

	Age group						Total
	15-24	25-34	35-44	45-54	55-64	65+	
1996							
Number							
Male	6,865	26,930	34,315	24,598	11,883	4,453	109,044
Female	32,510	82,035	99,351	66,117	19,557	1,938	301,508
Total	39,375	108,965	133,666	90,715	31,440	6,391	410,552
Proportion of total health workforce (per cent)							
Male	1.7	6.6	8.4	6.0	2.9	1.1	26.6
Female	7.9	20.0	24.2	16.1	4.8	0.5	73.4
Total	9.6	26.5	32.6	22.1	7.7	1.6	100.0
2001							
Number							
Male	6,086	25,429	32,760	29,465	14,585	4,770	113,095
Female	28,001	80,434	104,497	91,936	31,093	3,294	339,255
Total	34,087	105,863	137,257	121,401	45,678	8,064	452,350
Proportion of total health workforce (per cent)							
Male	1.3	5.6	7.2	6.5	3.2	1.1	25.0
Female	6.2	17.8	23.1	20.3	6.9	0.7	75.0
Total	7.5	23.4	30.3	26.8	10.1	1.8	100.0
2006							
Number							
Male	6,912	27,715	34,913	36,359	20,995	6,479	133,373
Female	35,000	89,647	108,428	121,527	54,324	6,081	415,007
Total	41,912	117,362	143,341	157,886	75,319	12,560	548,380
Proportion of total health workforce (per cent)							
Male	1.3	5.1	6.4	6.6	3.8	1.2	24.3
Female	6.4	16.3	19.8	22.2	9.9	1.1	75.7
Total	7.6	21.4	26.1	28.8	13.7	2.3	100.0

(a) Occupation definitions as provided by the client.

Source: ABS and AIHW analysis of 1996, 2001 and 2006 Census data.

Additional information

Indigenous doctors and nurses

- According to the Australian Indigenous Doctors' Association, there are currently an estimated 140 Indigenous doctors in Australia (AIDA 2009). This represents only about 0.2% of the medical profession – well below the proportion (2.5%) of the Australia population that is Indigenous. To increase the rate of Indigenous doctors working in Australia to be equivalent to the rate of non-Indigenous doctors, the Australian Medical Association in 2004 estimated that around 928 more doctors need to be trained (AMA 2004). In 2009 there were 137 Indigenous medical students: this represents of 0.9% of all medical students (AIDA 2009).
- In 2008, there were an estimated 78,909 medical practitioners working in medicine in Australia (AIHW 2010a). There were also an estimated 312,736 employed nurses, 1,598 (0.6%) of whom were Aboriginal or Torres Strait Islander Australians (AIHW 2010b).

Health workforce in rural and regional Australia

A report by the Department of Health and Ageing on an audit of the health workforce in rural and regional Australia in 2008 found that:

- The supply of the medical workforce – when considered as the number of doctors in comparison to the population of the area in which those doctors practise – is low to very poor in many rural and regional areas of Australia.
- The nursing workforce – when considered as a ratio of nurses to population – is relatively evenly distributed throughout rural and regional Australia.
- The supply of other health professions – particularly dental practitioners – as a ratio of professional to population, is low to poor.
- The Aboriginal health workforce is relatively small – predominantly working in *Outer regional, Remote* and *Very remote* locations.
- The supply of medical and nursing professionals varies considerably across jurisdictions. The Northern Territory, Western Australia, and the Australian Capital Territory, have lower proportions of GPs in the population and Queensland and New South Wales have the lowest proportion of nurses.
- The supply and the distribution of health professionals – in particular throughout rural and regional areas – largely correspond with the distribution of state and territory-funded health services across Australia (DoHA 2008).

Aboriginal and Torres Strait Islander primary health-care services

- In 2007–08, a total of 281 full-time equivalent (FTE) doctors were employed by Indigenous primary health-care services. The majority of doctors, nurses, allied health professionals and dentists employed by Indigenous primary health-care services were non-Indigenous. Most traditional healers, Aboriginal health workers, sexual health workers, Bringing them Home counsellors, environmental health workers, Indigenous health workers, substance use workers and drivers/field officers were Indigenous Australians (OATSIH & NACCHO 2009).
- In 2007–08, there were a small number of FTE health staff positions in Indigenous primary health-care services that were not funded by the service. These positions may be

funded by state/territory health departments or through programs such as More Allied Health Services (MAHS) Program and Community Development Employment Projects (CDEP). A very small proportion of the FTE Indigenous health worker positions were held by non-Indigenous staff, and a very small proportion of FTE medical specialist/allied health professional, doctor and nurse positions were held by Indigenous staff (OATSIH & NACCHO 2009).

Data quality issues

Census of population and housing

The Census uses the *National health data dictionary* standard Indigenous status question and it is asked for each household member. Measures that are drawn from Census data are subject to broad data concerns relating to the unexplainable growth in the Aboriginal and Torres Strait Islander population since the 1991 Census, and the limitations of self-identification. Other Census data issues relate to the accuracy of the Census count itself; for example, whether people are counted more than once, or are undercounted (ABS 1996).

For the 2002 NATSISS, it was estimated that there were 165,700 Indigenous households compared with 144,700 enumerated in the 2001 Census. Although the Census data are adjusted for undercounts at the person level to arrive at the estimated resident population, no such adjustment is done at the household level. This affects the accuracy of the person counts at the household level to provide adjusted household estimates.

List of symbols used in tables

- n.a. not available
- rounded to zero (including null cells)
- 0 zero
- .. not applicable
- n.e.c. not elsewhere classified
- n.f.d. not further defined
- n.p. not available for publication but included in totals where applicable, unless otherwise indicated

References

ABS (Australian Bureau of Statistics) 1996. Occasional paper: population issues: Indigenous Australians. ABS cat. no. 4708.0. Canberra: ABS.

AIDA (Australian Indigenous Doctors' Association) 2009. Aboriginal and Torres Strait Islander Doctors and Students. Viewed May 2009.

<<http://www.aida.org.au/pdf/Numbersofdoctors.pdf>>.

AIHW 2010a. Medical labour force 2008. Bulletin 82. Cat. no. AUS 131. Canberra: AIHW.

AIHW 2010b. Nursing and midwifery labour force 2008. Bulletin 81. Cat. no. AUS 130. Canberra: AIHW.

AMA (Australian Medical Association) 2004. Healing hands: Aboriginal and Torres Strait Islander workforce requirements. Discussion paper. Canberra: AMA.

DoHA (Australian Government Department of Health and Ageing) 2008. Report on the audit of health workforce in rural and regional Australia. Canberra: Commonwealth of Australia.

OATSIH (Office for Aboriginal and Torres Strait Islander health) & NACCHO (National Aboriginal Community Controlled Health Organisation) 2009. Service activity reporting – 2007–08 key results. Canberra: OATSIH & NACCHO.

List of tables

Table 3.10.1:	Employed persons aged 15+, by health-related occupation and Indigenous status, Australia, 1996, 2001 and 2006	1858
Table 3.10.2:	Employed persons aged 15+, by health-related occupation Indigenous status, age and sex, Australia, 2006.....	1861
Table 3.10.3:	Indigenous and other Australian health workforce age-standardised numbers, by age and sex, per 1,000 population, 2006	1862
Table 3.10.4:	Employed persons aged 15+, by Indigenous status, health-related occupations and state/territory of usual residence.....	1863
Table 3.10.5a:	Employed persons aged 15+, by Indigenous status and health-related occupation, Australia, 2006.....	1866
Table 3.10.5b:	Employed persons aged 15+, by Indigenous status and health-related occupation, Australia, 2001.....	1868
Table 3.10.5c:	Employed persons aged 15+, by Indigenous status and health-related occupation, Australia, 1996.....	1870
Table 3.10.6:	Employed Indigenous persons aged 15+ in health-related occupations, by age and sex, 1996, 2001 and 2006	1872
Table 3.10.7:	All employed persons aged 15+ in health-related occupations, by age and sex, 1996, 2001 and 2006.....	1873

List of figures

Figure 3.10.1:	Indigenous and non-Indigenous health workforce numbers per 1,000 persons, 1996, 2001 and 2006.....	1860
Figure 3.10.2:	Indigenous and other Australian health workforce age-standardised numbers, by age and sex, per 1,000 population, 2006	1862
Figure 3.10.3:	Indigenous health workforce as a proportion of total health workforce, by state/territory, 2006	1864
Figure 3.10.4:	Indigenous health workforce as a proportion of the Indigenous population aged 15+, by state/territory, 2006	1864