

Australasian College for Emergency Medicine

Department of Policy, Research & Advocacy

2017 FACEM and Trainee Demographic and Workforce

Report

November 2018



FACEM and Trainee Demographic and Workforce Report

Executive Summary

This report presents the demographic and workforce profiles of Fellows of the Australasian College for Emergency Medicine (FACEMs) and FACEM trainees. Data was sought from the ACEM member database and analysis was conducted by the Research Unit of the ACEM. The data included in this report provides insight into the emergency medicine workforce in Australia and New Zealand.

FACEM and trainee demographics	Australia	New Zealand	Total
Total number of active FACEMs	2151	283	2524
% Female	37.2%	41.7%	36.2%
Average age (years)	45.4	45.8	45.4
Number of new FACEMs in 2017	248	32	290
Total number of advanced trainees	1484	158	1649
% Female	46.1%	53.8%	46.9%
Total number of provisional trainees	803	99	903
% Female	47.1%	48.5%	47.2%
FACEM workforce profile			
Working in EM (at least one workplace) (n/%)	1934 (96.6%)	250 (96.9%)	2184 (96.6%)
Working equivalent of fulltime hours (n/%)	1422 (71.5%)	208 (81.9%)	1630 (72.6%)
Working at 2 or more workplaces (n/%)	800 (39.6%)	53 (20.2%)	853 (37.4%)
Working in non-metro settings (n/%)	471 (23.5%)	112 (43.4%)	583 (25.8%)
FACEMs per 100,000 population	8.2	5.5	7.7

Purpose and Scope

The purpose of this report is to describe the demographic and workforce profiles of the emergency medicine workforce with respect to Fellows (FACEMs) and FACEM trainees of the Australasian College for Emergency Medicine (ACEM) in 2017. Information from the ACEM member database was sourced and analysis was conducted by the ACEM Research Unit, Policy, Research and Advocacy Department. This report applies to all FACEMs, and advanced and provisional trainees of the College. The data presented in this report will help to inform planning and policy initiatives relating to the emergency medicine workforce and ACEM training activities.

Data

Data relating to FACEMs and advanced and provisional trainees was extracted from the ACEM member database, including:

- Demographic profiles, including gender, age distribution, international medical graduate status, and Indigenous status
- FACEM workplace and trainee placement data, including location, roles and working hours
- FACEM and trainee trends over the past eight to 10 years, dependent on data availability
- Ratio of FACEMs and trainees per population

For the purposes of this report, data was analysed and presented as at 31 December, 2017 to allow for comparisons over an eight to ten year period from 2008 to 2017. Prior to 2012, there was substantial missing demographic and training related data for members, and issues with the reliability of some of the existing data and with the database.

There was a large amount of missing data relating to FACEM workplace details, mostly for newly elected FACEMs. Extensive data cleaning was also undertaken on the available workplace details of FACEMs.

Where data has been presented by region, the classification differs between the demographic data and FACEM workforce/ trainee placement analysis. The demographic data analysis is based on residential/ mailing address to classify the 'region', whereas for the FACEM workforce and trainee placement analysis 'region' is reflective of workplace location (i.e. state or country). Analysis based on remoteness (metropolitan or regional/ rural) was determined using the workplace of FACEMs and FACEM trainees and excludes those working as locum or in pre-hospital/ retrieval medicine roles not linked to a hospital. For Australian workplaces, remoteness was based on the Australian Standard Geographical Classification - Remoteness Area (ASGC-RA 2006) (Australian Bureau of Statistics, 2014), whilst New Zealand sites were classified as metropolitan if they were located in Auckland, Christchurch or Wellington, with all other sites classified as urban-regional.

Demographic Characteristics of FACEMs

In 2017, there was a total of 2524 active FACEMs; 2151 FACEMs working in Australia, with 36% female, and 283 FACEMs working in New Zealand, with 42% female. A further 90 (4%) FACEMs were working outside of Australia and New Zealand.

Two (0.09%) Australian FACEMs self-identified as Aboriginal and four FACEMs in New Zealand self-identified as Māori (1.4%), as recorded in their ACEM member profile. No FACEMs identified as Torres Strait Islander.

A total of 978 active FACEMs (39%) gained their primary medical degree overseas and were as such classified as International Medical Graduates.

Table 1 presents the distribution of all active FACEMs by region and gender.

Table 1. Distribution of all FACEMs by region and gender

Region	Female	Male	Total		% Female
	N	N	N	%	
Australia	766	1384	2151	85.2%	35.6%
NSW	213	360	573	22.7%	37.2%
VIC	196	359	556	22.0%	35.3%
QLD	180	340	520	20.6%	34.6%
WA	88	157	245	9.7%	35.9%
SA	45	84	129	5.1%	34.9%
TAS	16	34	50	2.0%	32.0%
NT	17	20	37	1.5%	45.9%
ACT	11	30	41	1.6%	26.8%
New Zealand	118	164	283	11.2%	41.7%
Overseas	29	60	90	3.6%	32.2%
Total	913	1608	2524*	100.0%	36.2%

*3 FACEMs had an unspecified gender and are included in the total column.

Table 2 (over page) presents the distribution of all active FACEMs by age group, region and gender, with two thirds, 67% (1695/2524) aged between 35 and 49 years. Fifteen percent of FACEMs in Australia (313/2151) and 13% in New Zealand (38/283) were aged 55 years or older.

Table 2. Active FACEMs by age group, region and gender

Region	<35 years			35-39 years			40-44 years			45-49 years			50-54 years			55-59 years			60+ years		
	F	M	Total % (n)	F	M	Total % (n)	F	M	Total % (n)	F	M	Total % (n)	F	M	Total % (n)	F	M	Total % (n)	F	M	Total % (n)
Australia	2.7%	2.5%	5.3% (113)	9.7%	11.8%	21.5% (462)	9.4%	13.3%	22.7% (489)	7.7%	15.4%	23.1% (496)	3.3%	9.5%	12.9% (277)	2.1%	7.1%	9.3% (199)	0.7%	4.7%	5.3% (114)
NSW	3.5%	3.1%	6.6% (38)	8.9%	11.7%	20.6% (118)	8.6%	11.0%	19.5% (112)	8.9%	15.4%	24.3% (139)	3.7%	8.4%	12.0% (69)	2.8%	7.5%	10.3% (59)	0.9%	5.8%	6.6% (38)
VIC	1.4%	2.2%	3.6% (20)	9.4%	12.8%	22.2% (123)	9.2%	12.3%	21.4% (119)	8.5%	14.4%	22.9% (127)	4.1%	12.3%	16.4% (91)	2.0%	6.1%	8.1% (45)	0.7%	4.7%	5.4% (30)
QLD	3.5%	3.5%	6.9% (36)	11.7%	13.3%	25.0% (130)	10.0%	14.6%	24.6% (128)	6.2%	13.5%	19.6% (102)	1.3%	9.0%	10.4% (54)	1.7%	7.3%	9.0% (47)	0.2%	4.2%	4.4% (23)
WA	4.1%	1.6%	5.7% (14)	10.6%	8.6%	19.2% (47)	11.4%	15.5%	26.9% (66)	5.7%	18.4%	24.1% (59)	2.0%	8.6%	10.6% (26)	2.0%	7.8%	9.8% (24)	0.0%	3.7%	3.7% (9)
SA	1.6%	0.0%	1.6% (2)	6.2%	9.3%	15.5% (20)	7.8%	16.3%	24.0% (31)	7.8%	20.9%	28.7% (37)	7.8%	7.8%	15.5% (20)	2.3%	7.8%	10.1% (13)	1.6%	3.1%	4.7% (6)
TAS	0.0%	0.0%	0	2.0%	12.0%	14.0% (7)	12.0%	16.0%	28.0% (14)	8.0%	14.0%	22.0% (11)	4.0%	10.0%	14.0% (7)	2.0%	10.0%	12.0% (6)	4.0%	6.0%	10.0% (5)
NT	0.0%	2.7%	2.7% (1)	16.2%	8.1%	24.3% (9)	13.5%	18.9%	32.4% (12)	8.1%	10.8%	18.9% (7)	8.1%	8.1%	16.2% (6)	0.0%	0.0%	0	0.0%	5.4%	5.4% (2)
ACT	2.4%	2.4%	4.9% (2)	7.3%	12.2%	19.5% (8)	2.4%	14.6%	17.1% (7)	9.8%	24.4%	34.1% (14)	2.4%	7.3%	9.8% (4)	2.4%	9.8%	12.2% (5)	0.0%	2.4%	2.4% (1)
New Zealand	1.8%	1.1%	2.8% (8)	11.7%	10.3%	22.0% (62)	12.1%	9.9%	22.0% (62)	8.9%	15.6%	24.5% (69)	4.6%	10.6%	15.2% (43)	1.8%	5.3%	7.1% (20)	1.1%	5.3%	6.4% (18)
Overseas	4.5%	2.2%	6.7% (6)	10.1%	10.1%	20.2% (18)	6.7%	14.6%	21.3% (19)	4.5%	15.7%	20.2% (18)	4.5%	13.5%	18.0% (16)	2.2%	7.9%	10.1% (9)	0.0%	3.4%	3.4% (3)
Total	2.7%	2.3%	5.0% (127)	9.9%	11.6%	21.5% (542)	9.6%	13.0%	22.6% (570)	7.7%	15.4%	23.1% (583)	3.5%	9.8%	13.3% (336)	2.1%	6.9%	9.0% (228)	0.7%	4.7%	5.4% (135)

The average age of FACEMs was 45.4 years, with female FACEMs, on average, younger than male FACEMs (Table 3).

Table 3. Average age of FACEMs by country and gender (N=2524)

Region	Average Age of FACEMs		
	Female	Male	Total
Australia	43.2	46.6	45.4
New Zealand	43.6	47.5	45.8
Overseas	42.6	47.2	45.9
Total	43.2	46.7	45.4

Figures 1 and 2 show the distribution of FACEMs by age group and gender in Australia and New Zealand, respectively.

Figure 1. FACEMs in Australia, by age group and gender (n=2151)

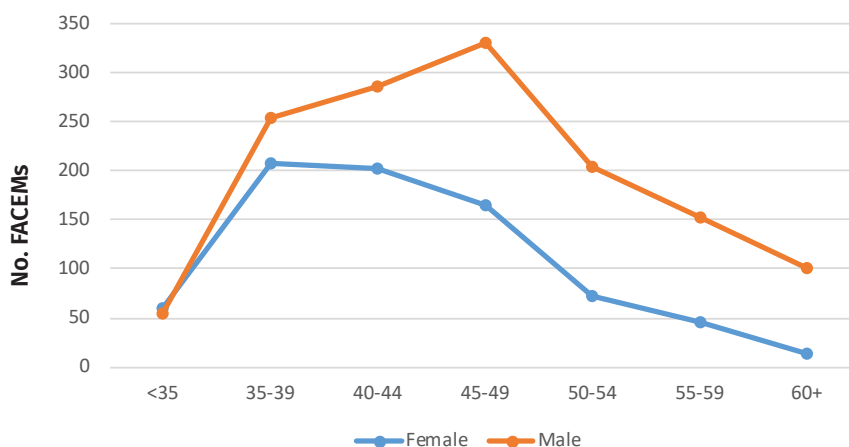
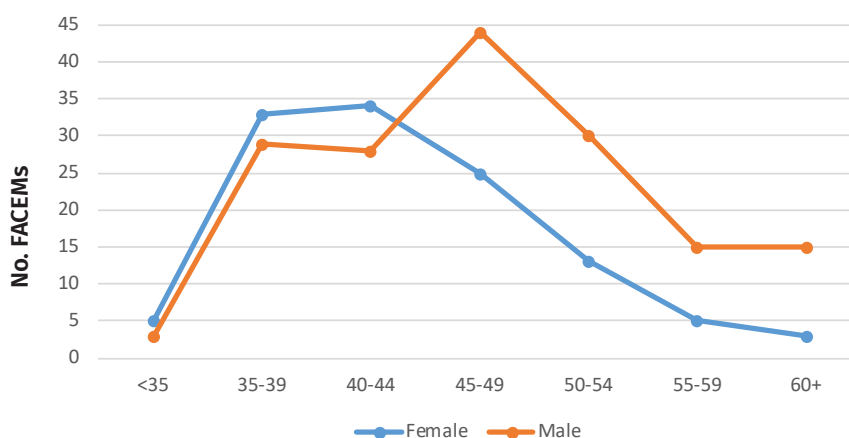


Figure 2. FACEMs in New Zealand, by age group and gender (n=283)



New FACEMs

In 2017, a record number of candidates, 290 were elected to Fellowship, with 90% (260) completing the FACEM Training Program pathway and the remainder (30) elected to Fellowship following recognition of overseas specialist qualifications (as Specialist International Medical Graduates). Table 4 presents the 2017 new FACEMs by region, pathway and gender.

Table 4. Distribution of new FACEMs by region, pathway and gender

Region	Training			Recognition as SIMG			Total	
	Female	Male	Total	Female	Male	Total	N	% Female
Australia	104	130	234	8	6	14	248	45.2%
NSW	31	40	71	3	1	4	75	45.3%
VIC	20	38	58	1		1	59	35.6%
QLD	34	34	68	1	2	3	71	49.3%
WA	12	6	18	1	1	2	20	65.0%
SA	5	7	12		1	1	13	38.5%
TAS		2	2	1	1	2	4	25.0%
NT	1	1	2	1		1	3	66.7%
ACT	1	2	3				3	33.3%
New Zealand	11	11	22	7	3	10	32	56.3%
Overseas	3	1	4	1	5	6	10	40.0%
Total	118	142	260	16	14	30	290	46.2%

SIMG=Specialist International Medical Graduate

Workplace details of FACEMs

This section presents the workplace details of the 2287 FACEMs working in Australia and New Zealand, with workplace details recorded. Of those, 2025 were working in Australia (7% missing data) and 262 were working in New Zealand (6% missing data). Four FACEMs working in Australia were working solely as locums with no specific workplace details and are excluded from further analysis.

Overall workplace profile

The percentage of FACEMs working at one site only was 63% (1430), with 27% (623) working at two sites and 10% (230) were working across three or more sites.

The percentage of FACEMs working in a hospital setting at one or more workplaces was 99% (2261) in both Australia (2003) and New Zealand (258). Of the FACEMs working at a hospital, 97% were working in an emergency department (ED), 1934 in Australia and 249 in New Zealand, and 97% in the public sector.

The majority (74%, 1678) of FACEMs working in a hospital were located in metropolitan areas only, 77% in Australia (1532) and 57% in New Zealand (146). Nineteen percent (436) were working in regional localities only (330 in Australia; 106 in New Zealand) and 7% (147) were working in both metropolitan and regional areas across two or more workplaces.

A total of 73% (1630/2248) FACEMs were working full-time hours; 71% of FACEMs in Australia and 73% of FACEMs in New Zealand.

A workplace summary of FACEMs in Australia and New Zealand is presented in Table 5.

Table 5. Workplace summary of FACEMs working at one or more workplaces in Australia and New Zealand (N=2283)

	Australia		New Zealand		Total	
	N	%	N	%	N	%
Number with workplace details	2021		262		2283	
Number of workplaces						
One	1221	60.4%	209	79.8%	1430	62.6%
Two	574	28.4%	49	18.7%	623	27.3%
Three or more	226	11.2%	4	1.5%	230	10.1%
Workplace setting						
Hospital only	1905	94.3%	255	97.3%	2160	94.6%
Non-hospital only	18	0.9%	4	1.5%	22	1.0%
Both hospital & non-hospital	98	4.8%	3	1.1%	101	4.4%
Working in a hospital at one or more workplaces	2003		258		2261	
Working in an ED across workplaces	1934	96.6%	250	96.9%	2184	96.6%
Working in a public hospital across workplaces	1942	97.0%	258	100.0%	2200	97.3%
Metropolitan location only	1532	76.5%	146	56.6%	1678	74.2%
Regional location only	330	16.5%	106	41.1%	436	19.3%
Both metropolitan & regional locations	141	7.0%	6	2.3%	147	6.5%
Hours per week across all workplaces*	1990		254		2244	
Full-time hours	1422	71.5%	208	81.9%	1630	72.6%
Less than full-time hours	568	28.5%	46	18.1%	614	27.4%

*Excludes 39 FACEMs with unknown employment status or working hours
ED=emergency department

Data on hours worked per week were available for 2244 FACEMs. For FACEMs working at more than one workplace, the total number of hours was calculated and those working 38 hours or more per week were classified as full-time. The remainder working less than 38 hours per week were classified as part-time. A total of 73% (1630) were working the equivalent of full-time hours across one or more workplaces; 72% (1422/ 1990) in Australia and 82% (208/254) in New Zealand.

Overall, 40% of females were working the equivalent of part-time hours, with 21% of males working part-time. Figure 3 presents the employment status (full-time and part-time), by gender and age group for FACEMs working in Australia and New Zealand.

Figure 3. Employment status of FACEMs working in Australia and New Zealand, by age group and gender

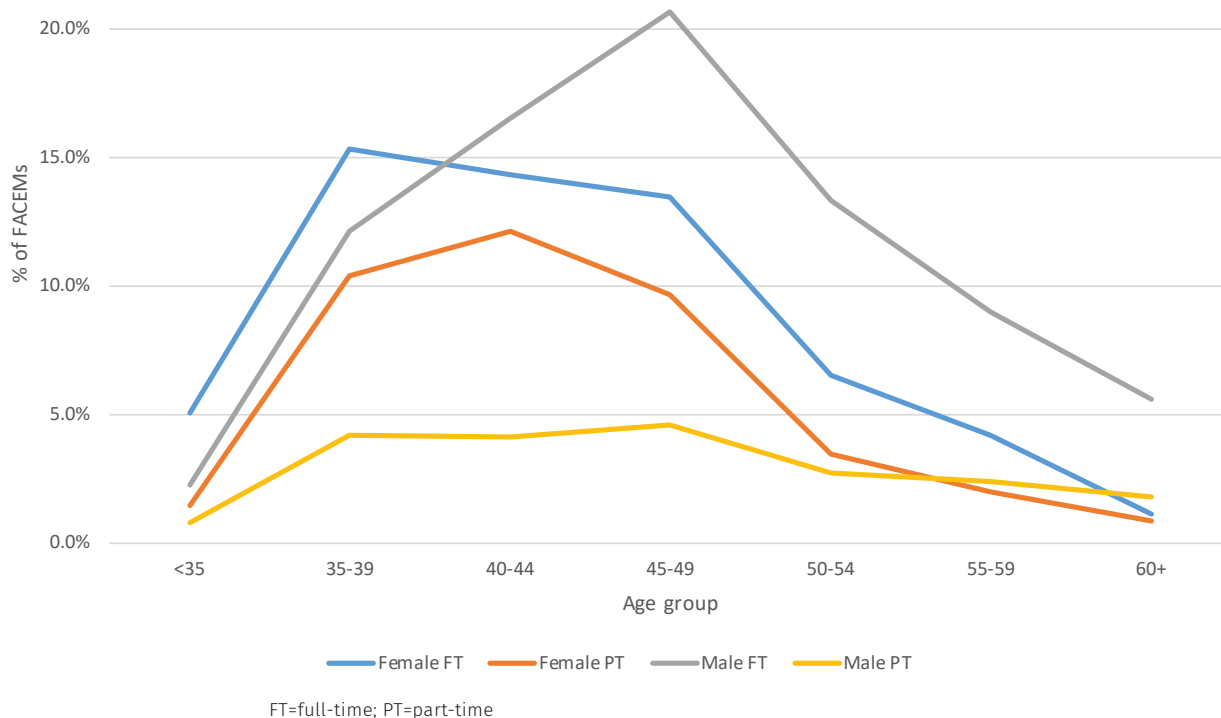


Table 6 presents for FACEMs working in an ED, the number and percentage working full-time or part-time across one or more EDs, by region.

Table 6. Employment status of FACEMs working in in Australia and New Zealand in an ED, by region

Region	Full-time		Part-time	
	n	%	n	%
Australia	1299	67.0%	597	30.9%
NSW	341	64.7%	178	33.8%
VIC	315	64.0%	161	32.8%
QLD	327	72.2%	118	26.0%
WA	149	68.0%	65	29.8%
SA	84	69.4%	34	28.1%
TAS	20	51.3%	18	46.2%
NT	33	73.3%	12	26.7%
ACT	30	73.2%	11	26.8%
New Zealand	198	79.2%	45	18.0%
Total	1497	68.4%	642	29.4%

NB: 45 FACEMs had unknown hours per week; for FACEMs working across more than one region, primary workplace region was used

Of the FACEMs working at one or more EDs, similar proportions were working full-time when comparing those working in metropolitan areas only (68%) and those in regional areas only (68%) (Table 7). A slightly higher proportion of FACEMs who were working across both metropolitan and regional EDs were working full-time at 79%.

Table 7. FACEMs working full-time across one or more ED, by location of ED (n=1497)

Location	Full-time		Part-time	
	n	%	n	%
Metropolitan only	1092	67.6%	488	30.2%
Regional or rural only	290	68.4%	124	29.2%
Both metropolitan and regional/rural	115	79.3%	30	20.7%

NB: 45 FACEMs had unknown hours per week

Primary workplace profile

A total of 93% (2130) of FACEMs were working as emergency physicians in an ED at their primary workplace. In Australia, 93% (1883), and in New Zealand, 98% (258) of FACEMs' primary workplace was in the public sector. Table 8 displays workplace sector and speciality role for the primary workplace of Australian and New Zealand FACEMs.

Table 8. Primary speciality role of FACEMs working in Australia and New Zealand, by sector and region

Region	Public Hospital				Private Hospital				Non-Hospital				Total			
	ED	Other	Total	%	ED	Other	Total	%	Pre-hospital/	Other	Total	%				
Australia	1805	79.1%	78	3.4%	1883	77	3.4%	7	0.3%	84	37	1.6%	17	0.7%	54	2021
NSW	509	22.3%	12	0.5%	521	4	0.2%	2	0.1%	6	11	0.5%	4	0.2%	15	542
VIC	437	19.1%	23	1.0%	460	40	1.8%	2	0.1%	42	9	0.4%	1	0.0%	10	512
QLD	413	18.1%	16	0.7%	429	30	1.3%	3	0.1%	33	7	0.3%	7	0.4%	14	476
WA	207	9.1%	15	0.7%	222	2	0.1%	0	0.0%	2	6	0.3%	3	0.3%	9	233
SA	116	5.1%	4	0.2%	120	1	0.0%	0	0.0%	1	3	0.1%	0	0.2%	3	124
TAS	39	1.7%	4	0.2%	43	0	0.0%	0	0.0%	0	0	0.0%	0	0.0%	0	43
NT	45	2.0%		0.0%	45	0	0.0%	0	0.0%	0	0	0.0%	0	0.0%	0	45
ACT	39	1.7%	4	0.2%	43	0	0.0%	0	0.0%	0	1	0.0%	2	0.1%	3	46
New Zealand	248	10.9%	10	0.4%	258	0	0.0%	0	0.0%	0	1	0.1%	3	0.1%	4	262
Total	2053	89.9%	88	3.9%	2141	77	3.4%	7	0.3%	84	38	1.7%	20	0.9%	58	2283

ED: emergency department; Other Hospital: e.g. ICU / anaesthetics / administration; Other Non-Hospital: e.g. research / academia

Only 19% (372) of FACEMs in Australia and 41% (106) in New Zealand were working in regional/ rural locations at their primary workplace. The distribution of FACEMs primary workplace by region and remoteness is presented in Table 9 and Figure 4.

Table 9. Primary workplace location of FACEMs working in Australia and New Zealand by region and remoteness

Region	Total	Metropolitan	Regional or Rural	% Regional or Rural
Australia	2005	1595	372	18.6%
NSW	539	435	92	17.1%
VIC	511	453	49	9.6%
QLD	469	344	118	25.2%
WA	230	202	22	9.6%
SA	124	118	3	2.4%
TAS	43	0	43	100.0%
NT	45	0	45	100.0%
ACT	44	43	0	0.0%
New Zealand	259	152	106	40.9%
Total	2264	1747	478	21.1%

NB: Excludes 39 FACEMs working in Pre-hospital / retrieval medicine

Figure 4. Distribution of FACEM's primary workplace, by region and remoteness (n=2075)

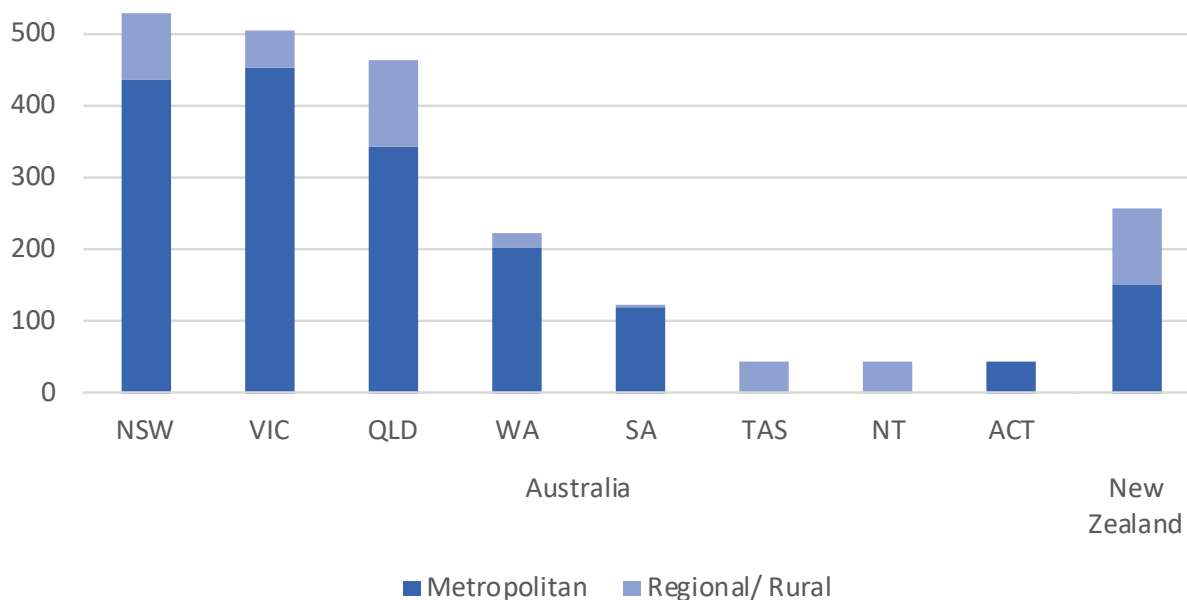


Table 10 presents for FACEMs working in a hospital setting, their primary workplace by location and sector. A total of 77% and 59% of FACEMs in Australia and New Zealand respectively were working in a metropolitan public hospital.

Table 10. Primary workplace location and sector for FACEMs employed in Australia or New Zealand

Location	Public Hospital		Private Hospital		Total (N)
	N	%	N	%	
Australia	1883	95.7%	84	4.3%	1967
Metropolitan	1514	77.0%	81	4.1%	1595
Rural or Regional	369	18.8%	3	0.2%	372
New Zealand	258	100.0%	0	0.0%	258
Metropolitan	152	58.9%	0	0.0%	152
Rural or Regional	106	41.1%	0	0.0%	106
Total	2141	96.2%	84	3.8%	2225

FACEM trends

Over the period 2008 to 2017, there was an average of 153 new FACEMs per annum; 129 per annum in Australia and 19 per annum in New Zealand. For the same period, the average attrition from the speciality was 8.0 FACEMs per annum overall; 5.0 in Australia, 1.2 per annum in New Zealand, and a smaller proportion living overseas. Figure 5 shows the annual number of FACEMs in Australia and New Zealand for the period 2008 to 2017.

Figure 5. Annual number of FACEMs in Australia and New Zealand 2008-2017

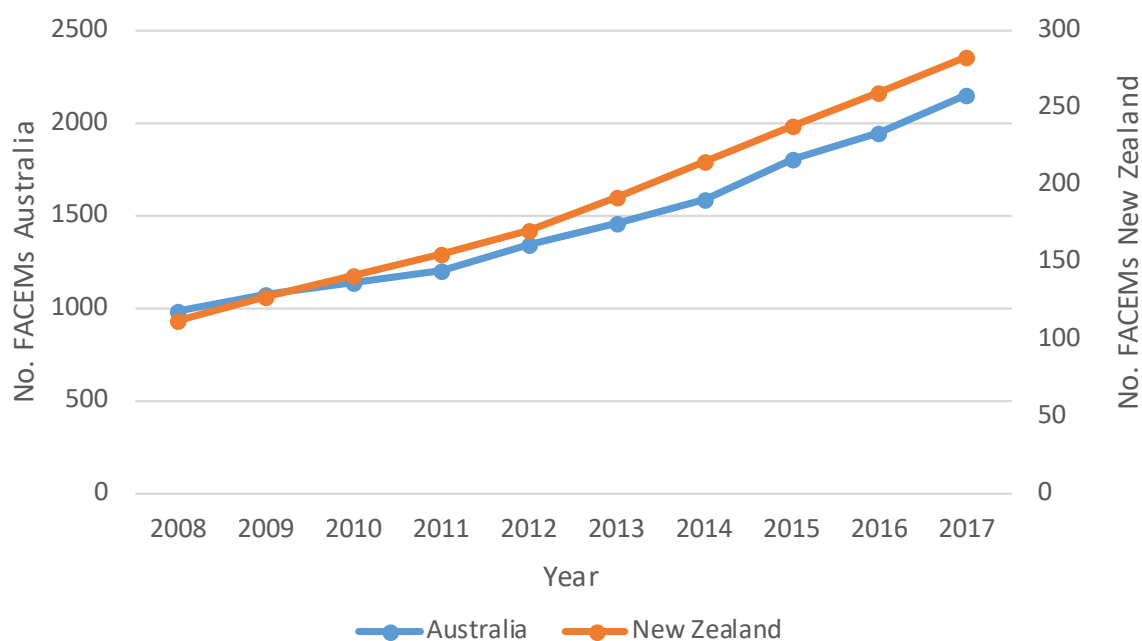


Table 11 presents a summary of trends relating to the demographic characteristics of FACEMs, intake and attrition for the period 2010 to 2017. The proportion of FACEMs who were female has risen steadily over the past seven years from 30% in 2011 to 36% in 2017, while the average age of FACEMs has remained steady at between 45 and 46 years. In 2017 the College saw the largest number of new FACEMs elected at 290 in recent times, with 57% of them International Medical Graduates (IMGs) having gained their primary medical degree from overseas.

Table 11. FACEM trends for the period 2010-2017

	2010	2011	2012	2013	2014	2015	2016	2017	% change 16-17	% change 10-17
Total no.	1335	1413	1562	1705	1859	2101	2252	2524	12.1%	89.1%
% Female	ND	29.6%	30.9%	31.9%	33.1%	33.6%	34.8%	36.2%	4.0%	22.3%
Average age	ND	44.7	45.5	45.7	46.3	45.4	45.6	45.4	-0.4%	1.6%
% 55+ years of age	ND	9.5%	10.4%	11.2%	13.8%	13.6%	14.3%	14.4%	0.7%	ND
% Working PT	ND	ND	ND	ND	25.0%	27.0%	26.0%	27.4%	3.8%	ND
% Rural-Regional	ND	ND	ND	ND	20.2%	22.0%	24.4%	25.8%	5.7%	ND
% Working 2+ workplaces	ND	ND	ND	ND	23.6%	28.3%	32.8%	37.4%	14.0%	ND
No. new FACEMs	95	96	152	144	164	249	181	290	60.2%	205.3%
% Female	44.2%	31.3%	45.4%	39.6%	45.7%	35.7%	47.5%	46.2%	2.7%	4.5%
% IMG	ND	50.5%	58.0%	50.0%	45.9%	54.5%	47.6%	56.9%	19.5%	ND
Average age at election	ND	36.6	37.4	37.6	37.4	37.5	37.6	37.5	-0.3%	ND
% SIMG pathway	22.1%	9.4%	14.5%	23.6%	17.7%	10.8%	9.4%	10.3%	9.6%	-53.4%
No. withdrawals/ retirees	2	7	2	2	10	7	30	22	-26.7%	1000%

PT: part-time hours; % Rural-Regional: working in a rural-regional area for any workplace; IMG: International Medical Graduate; SIMG: Specialist International Medical Graduate

NB: Prior to 2012, there was substantial missing demographic and training related data for members, and issues with the reliability of some of the existing data and with the database

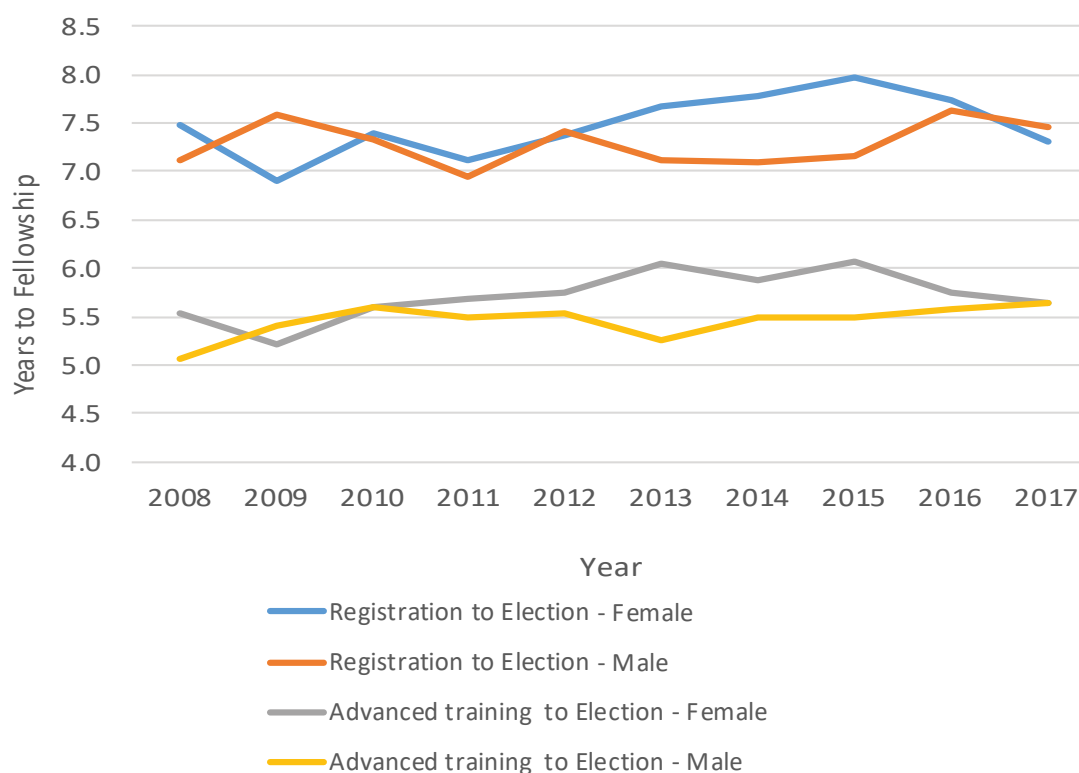
Over the period 2008 to 2017, new FACEMs who came through the training program pathway took on average 7.4 years from ACEM registration, and 5.6 years from commencing advanced training, to completion of all training requirements and be elected to Fellowship (Table 12).

Table 12. Average time (years) for new FACEMs to achieve Fellowship, 2008-2017

Year	N	ACEM registration to election			Advanced training commencement to election		
		Average	Min	Max	Average	Min	Max
2008	102	7.3	1.9	12.7	5.3	4.0	8.0
2009	97	7.3	4.5	13.7	5.3	3.6	8.6
2010	74	7.4	4.8	14.4	5.6	3.8	9.6
2011	87	7.0	2.7	13.5	5.6	3.8	11.0
2012	130	7.4	1.9	18.7	5.6	1.9	11.9
2013	110	7.4	4.7	16.7	5.6	3.7	10.8
2014	135	7.4	2.5	24.3	5.7	2.5	22.2
2015	222	7.5	1.6	18.5	5.7	1.5	13.0
2016	164	7.7	4.9	18.6	5.7	4.1	12.8
2017	260	7.4	4.4	18.3	5.6	3.3	14.9
Total	1381	7.4	1.7	24.3	5.6	1.5	22.2

Between 2008 and 2017, the average length of time to achieve Fellowship from ACEM registration was 7.4 years and 5.6 years from commencement of advanced training. Between 2013 and 2015 females took slightly longer on average to complete training. However, in 2016 and 2017 the time spent to complete training was comparable (Figure 6).

Figure 6. Average time (years) for new FACEMs to achieve Fellowship by gender, 2008-2017



FACEM Trainees

Demographic characteristics of FACEM trainees

There was a total of 2552 trainees enrolled in the FACEM training program at the end of 2017, including 1649 advanced trainees and 903 provisional trainees. A total of 659 trainees joined the FACEM training program in 2017, with 183 withdrawing from the program (including 87 advanced trainees). The number of trainees who self-identified as Aboriginal in 2017 was eight (0.3%), with a further nine (3.5%) self-identifying as Māori. No trainees identified as Torres Strait Islander. Just under half (1220, 48%) of all trainees obtained their primary medical degree overseas, deemed as International Medical Graduates.

For both the advanced and provisional trainees, 47% (774 and 426 respectively) were female. The number of FACEM trainees, by region and gender is presented in Table 13.

Table 13. Distribution of FACEM trainees by region and gender

Region	Advanced Trainees			Provisional Trainees			Total		% Female
	Female	Male	Total	Female	Male	Total	N	%	
Australia	684	799	1484	378	419	803	2287	89.6%	46.4%
NSW	207	226	433	128	115	246	679	26.6%	49.3%
VIC	144	181	325	84	94	178	503	19.7%	45.3%
QLD	184	209	394	103	127	232	626	24.5%	45.8%
WA	72	96	168	34	45	79	247	9.7%	42.7%
SA	32	50	82	12	17	30	112	4.4%	39.3%
TAS	13	13	26	8	7	15	41	1.6%	51.2%
NT	20	13	33	2	5	7	40	1.6%	55.0%
ACT	12	11	23	7	9	16	39	1.5%	48.7%
New Zealand	85	73	158	48	50	99	257	10.1%	51.8%
Overseas	5	2	7		1	1	8	0.3%	62.5%
Total	774	874	1649	426	470	903	2552*	100.0%	47.0%

*1 advanced trainee and 7 provisional trainees had either an unspecified or no gender recorded

Table 14 presents the distribution of FACEM trainees by region, age group and gender. The majority of trainees, 66% (1677/2552) were aged less than 35 years.

Table 14. FACEM trainees by region, age group and gender

Region	<30 years			30-34 years			35-39 years			40-44 years			45-49 years			50+ years		
	F	M	Total% (n)	F	M	Total% (n)	F	M	Total% (n)	F	M	Total% (n)	F	M	Total% (n)	F	M	Total% (n)
Australia	11.0%	11.7%	22.7% (517)	21.5%	21.3%	42.8% (975)	8.8%	11.3%	20.0% (457)	3.3%	5.9%	9.2% (209)	1.3%	2.2%	3.5% (80)	0.5%	0.8%	1.3% (29)
NSW	9.6%	9.5%	19.1% (129)	25.3%	21.4%	46.7% (316)	8.9%	10.1%	18.9% (128)	3.8%	6.7%	10.5% (71)	1.0%	1.2%	2.2% (15)	0.9%	1.3%	2.2% (15)
VIC	13.3%	10.5%	23.9% (120)	19.1%	21.3%	40.4% (203)	8.7%	12.1%	20.9% (105)	3.0%	5.2%	8.2% (41)	0.8%	4.0%	4.8% (24)	0.2%	1.2%	1.4% (7)
QLD	12.2%	15.1%	27.3% (170)	19.3%	20.4%	39.6% (247)	8.5%	10.1%	18.6% (116)	3.7%	5.3%	9.0% (56)	1.4%	2.4%	3.9% (24)	0.3%	0.3%	0.6% (4)
WA	9.7%	13.8%	23.5% (58)	21.1%	23.1%	44.1% (109)	8.9%	11.3%	20.2% (50)	1.6%	6.9%	8.5% (21)	0.8%	1.6%	2.4% (6)	0.4%	0.4%	0.8% (2)
SA	9.9%	7.2%	17.1% (19)	18.0%	25.2%	43.2% (48)	4.5%	18.9%	23.4% (26)	3.6%	8.1%	11.7% (13)	3.6%	0.9%	4.5% (5)	0.0%	0.0%	0.0%
TAS	9.8%	9.8%	19.5% (8)	22.0%	22.0%	43.9% (18)	12.2%	12.2%	24.4% (10)	4.9%	0.0%	4.9% (2)	2.4%	2.4%	4.9% (2)	0.0%	0.0%	0.0%
NT	5.0%	7.5%	12.5% (5)	30.0%	15.0%	45.0% (18)	15.0%	20.0%	35.0% (14)	2.5%	2.5%	5.0% (2)	0.0%	0.0%	0.0%	2.5%	0.0%	2.5% (1)
ACT	5.1%	15.4%	20.5% (8)	25.6%	15.4%	41.0% (16)	12.8%	7.7%	20.5% (8)	0.0%	7.7%	7.7% (3)	5.1%	5.1%	10.3% (4)	0.0%	0.0%	0.0%
New Zealand	16.8%	13.3%	30.1% (77)	20.3%	19.9%	40.2% (103)	7.0%	7.4%	14.5% (37)	4.7%	5.5%	10.2% (26)	2.0%	0.4%	2.3% (6)	0.8%	1.2%	2.0% (5)
Overseas	0.0%	12.5%	12.5% (1)	25.0%	25.0%	50.0% (4)	25.0%	0.0%	25.0% (2)	12.5%	0.0%	12.5% (1)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	11.6%	11.8%	23.4% (595)	21.4%	21.1%	42.5% (1082)	8.6%	10.8%	19.5% (496)	3.5%	5.8%	9.3% (236)	1.3%	2.0%	3.4% (86)	0.5%	0.8%	1.3% (34)

NB: Excludes 8 trainees with no or unspecified gender and 15 with no date of birth recorded

The average age of trainees was 33.5 years and females were on average slightly younger than males (Table 15).

Table 15. Average age of trainees by country and gender

Region	Average age of trainees		
	Female	Male	Total
Australia	33.1	34.0	33.6
New Zealand	33.0	33.0	33.0
Overseas	36.0	31.0	34.1
Total	33.1	33.9	33.5

Figures 7 and 8 display FACEM trainees in Australia and New Zealand, respectively, by age group and gender.

Figure 7. FACEM trainees in Australia, by age group and gender

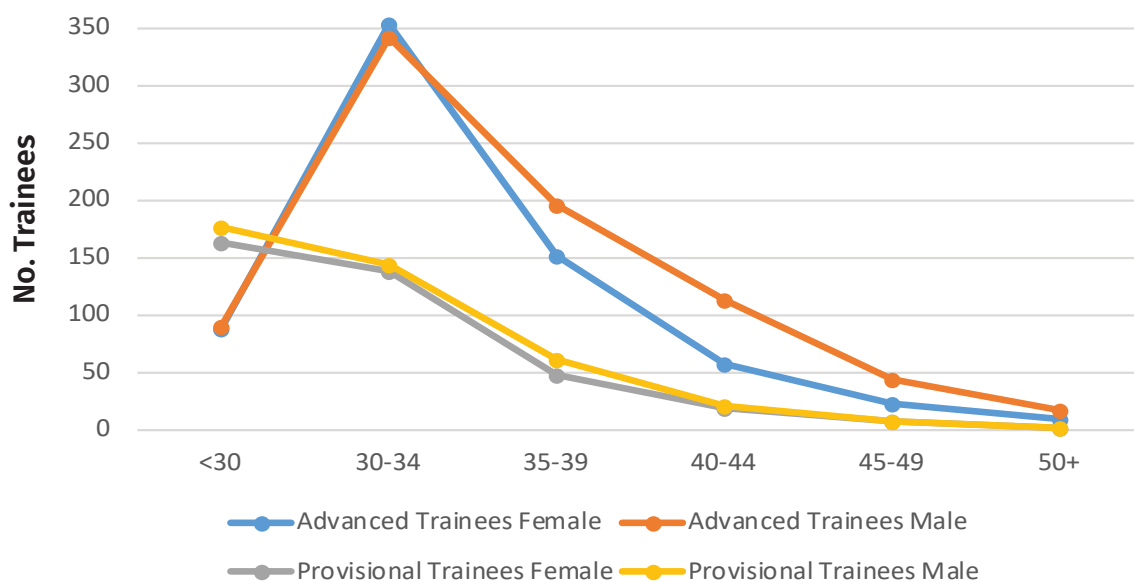
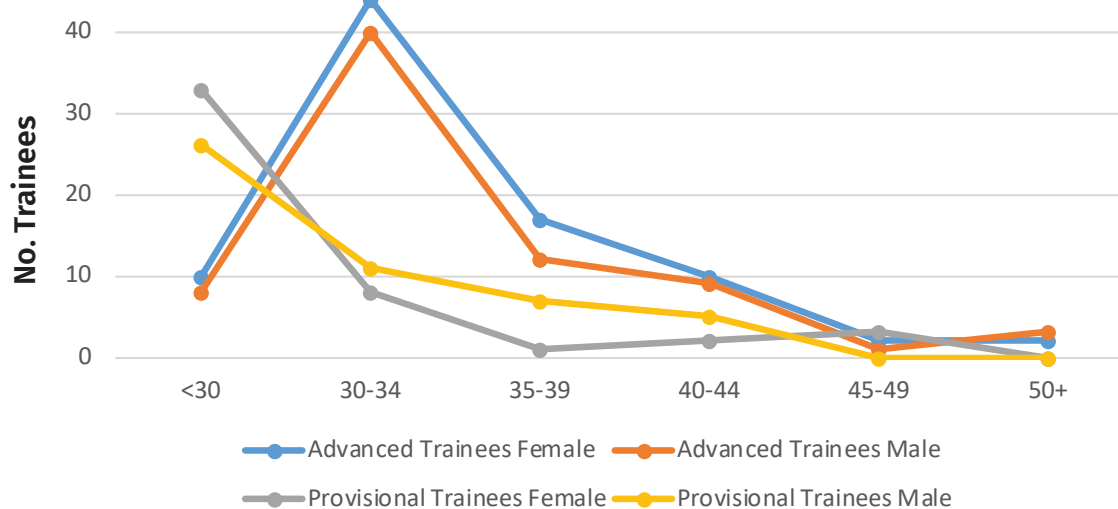


Figure 8. FACEM trainees in New Zealand, by age group and gender



FACEM trainee placement details

This section presents the placement details of all trainees, based on their last placement in 2017. Of the 2552 trainees in 2017, 291 were on a break in training, including 159 (13%) females and 132 (10%) males, and a further seven had no placement details recorded, with all excluded from further analysis. Eight trainees were working overseas, leaving 2246 trainees undertaking a placement in Australia or New Zealand. A total of 34 were working in a pre-hospital/ retrieval medicine placement only, with six of these attached to a hospital and 28 attached to a retrieval service.

A total of 72 trainees were undertaking two part-time placements with 69% (50) completing both placements at the same hospital – one in the ED and one in a different discipline.

Only 18% (353) of trainees in Australia and 37% (54) in New Zealand were working in regional/ rural localities at their placement workplace. The breakdown of location of placement workplace by region is presented in Table 16 and Figure 9, and excludes the 28 trainees working in a non-hospital pre-hospital/ retrieval medicine placement.

Table 16. Workplace location of all trainees working in Australia and New Zealand by region and remoteness

Region	Total	Metropolitan	Regional or Rural	% Regional or Rural
Australia	2005	1653	352	17.6%
NSW	618	548	70	11.3%
VIC	433	391	42	9.7%
QLD	553	422	131	23.7%
WA	209	187	22	10.5%
SA	92	92		0.0%
TAS	36		36	100.0%
NT	51		51	100.0%
ACT	13	13		0.0%
New Zealand	232	144	69	32.4%
Total	2218	1797	421	19.0%

NB: Excludes 28 trainees working in pre-hospital / retrieval medicine and 8 undertaking a placement outside of Australia and New Zealand; 2 trainees were working across 2 workplaces, 1 in a major city and 1 in a regional-rural area and are included as working regionally-rurally.

Figure 9: Distribution of ACEM trainees by workplace, by region and remoteness (n=2218)

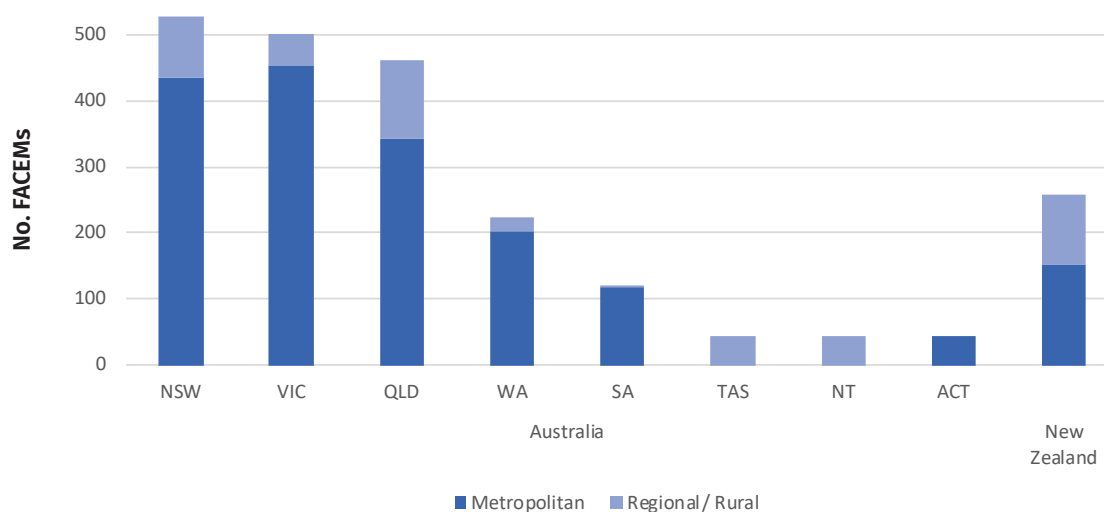


Table 17 displays the primary workplace profile of all trainees, including region, sector (public, private or non-hospital) and discipline – emergency medicine in an ED (ED), critical care medicine (CC), pre-hospital/retrieval medicine and other. Pre-hospital retrieval services operate out of both public hospitals and non-hospital settings and are therefore included under both sectors in Table 18. Not surprisingly, the majority of trainees (1634, 73%) were working in an ED in a public hospital.

Table 17. Training placement discipline of all trainees in Australia and New Zealand, by sector and region

Region	Public Hospital						Private Hospital						Non-Hospital						Grand Total				
	ED		CC		Pre-Hospital		Other		Total		ED		CC		Total		Pre-Hospital			Other		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		n	%	n	%
Australia	1466	72.1%	334	16.4%	6	0.3%	145	7.1%	1951	28	1.4%	11	0.5%	39	2	0.1%	28	1.4%	15	0.7%	43	2033	
NSW	458	22.5%	103	5.1%	2	0.1%	43	2.1%	606	7	0.3%	2	0.1%	9	0.0%	0.1%	5	0.2%	3	0.1%	8	623	
VIC	303	14.9%	71	3.5%			38	1.9%	412	14	0.7%	4	0.2%	18	0.0%	0.0%	1	0.0%	3	0.1%	4	434	
QLD	420	20.7%	87	4.3%			33	1.6%	540	6	0.3%	4	0.2%	10	0.0%	0.6%	13	0.6%	3	0.1%	16	566	
WA	146	7.2%	41	2.0%			17	0.8%	204	1	0.0%	1	0.0%	2	0.0%	0.1%	2	0.1%	3	0.1%	5	211	
SA	70	3.4%	14	0.7%			7	0.3%	91					0	0.0%	0.0%	2	0.1%	1	0.0%	3	94	
TAS	28	1.4%	6	0.3%			2	0.1%	36					0	0.0%	0.0%					0	36	
NT	34	1.7%	7	0.3%	4	0.2%	4	0.2%	49					0	0.0%	0.2%	4	0.2%	2	0.1%	6	55	
ACT	7	0.3%	5	0.2%			1	0.0%	13					0	0.0%	0.0%	1	0.0%			1	14	
New Zealand	168	78.9%	28	13.1%	17	8.0%	213	8.0%	213	28	1.2%	11	0.5%	39	2	0.9%	28	1.2%	15	0.7%	43	213	
Total	1634	72.8%	362	16.1%	6	0.3%	162	7.2%	2164	28	1.2%	11	0.5%	39	2	0.9%	28	1.2%	15	0.7%	43	2246	

CC: ICU/anaesthetics; Pre-hosp: pre-hospital/retrieval medicine; Other Hospital: e.g. toxicology, general medicine; Other Non-Hospital: e.g. general practice, research

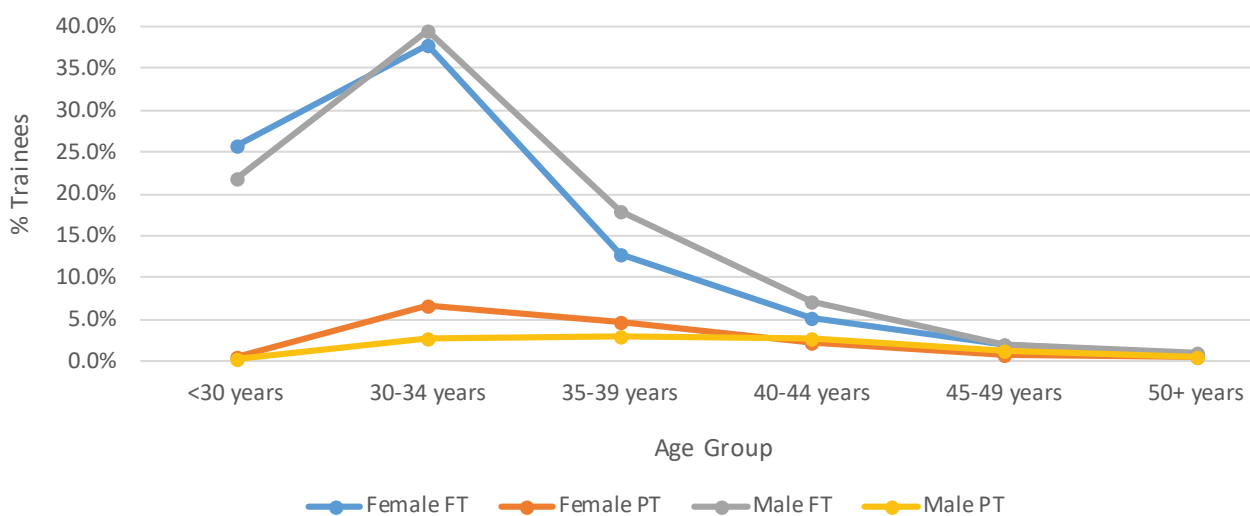
For the trainees working in a hospital, the majority in Australia and New Zealand were working in a public hospital in a metropolitan location (Table 18).

Table 18. Distribution of trainees working in a hospital setting in Australian or New Zealand hospital, by hospital sector and location (metropolitan or rural-regional)

Region and Remoteness	Public Hospital		Private Hospital		Total% N
	N	%	N	%	
Australia	1951	98.0%	39	2.0%	1990
Metropolitan	1613	81.1%	36	1.8%	1649
Rural or Regional	338	17.0%	3	0.2%	341
New Zealand	213	100.0%	0	0.0%	213
Metropolitan	140	65.7%	0	0.0%	140
Rural or Regional	73	34.3%	0	0.0%	73
Total	2164	98.2%	39	1.8%	2203

Figure 10 presents the employment status of trainees by gender and age group, for those working in Australia and New Zealand. The majority of trainees who were in a placement (87%; n=1943) were working full-time.

Figure 10. Employment status of trainees in Australia and New Zealand, by gender and age group



FT: full-time; PT: part-time

FACEM trainee trends

Table 19 presents the trainee trends over the period 2010 to 2017, including the total number of trainees, the number of new and withdrawing trainees and the proportion of trainees who were female. Over the period 2010 to 2017, there has been a 30% increase in the number of trainees and a small but steady increase in the proportion of female trainees, increasing from 40% in 2010 to 47% in 2017. In 2017 the largest trainee intake was observed as well as the largest number of advanced trainees withdrawing from the training program.

Table 19. Trainee trends for the period 2010-2017

	2010	2011	2012	2013	2014	2015	2016	2017	% change 2016-2017	% change 2010-2017
Total no.	1958	1973	2078	2272	2299	2320	2348	2552	8.7%	30.3%
% Female	40%	41%	42%	43%	44%	46%	47%	47%	0.0%	17.5%
% IMGs	58%	58%	57%	58%	54%	50%	48%	48%	0.0%	-17.2%
No. advanced trainees	1159	1213	1347	1397	1596	1572	1662	1649	-0.8%	42.3%
% Rural-Regional	ND	ND	ND	ND	ND	16%	17%	19%	11.8%	NA
No. new trainees	353	305	282	482	306	389	369	659	78.6%	86.7%
% Female	42%	48%	44%	43%	49%	52%	48%	45%	-6.2%	7.1%
% IMG	61%	54%	58%	58%	33%	32%	62%	40%	-35.5%	-34.4%
No. Advanced trainee withdrawals	30	31	32	50	57	50	72	87	20.8%	190.0%

IMG: International Medical Graduate

NB: Prior to 2012, there was substantial missing demographic and training related data for members, and issues with the reliability of some of the existing data and with the database

The annual number of all trainees and advanced trainees in Australia (Figure 11) and New Zealand (Figure 12) for the period 2008 to 2017 is presented below.

Figure 11. Annual number of all trainees and advanced trainees in Australia, 2008-2017

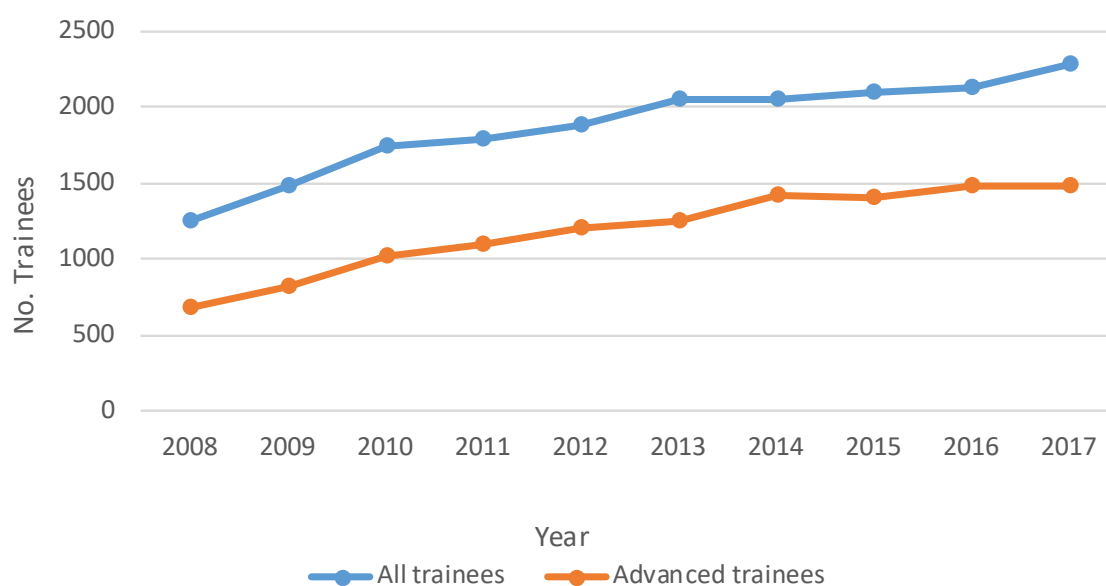
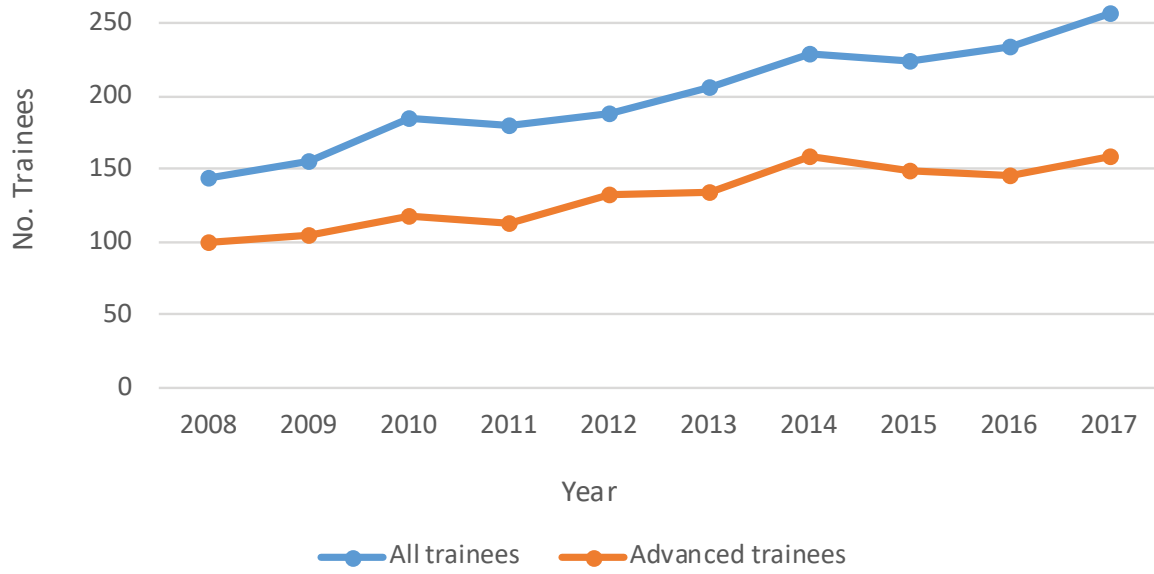


Figure 12. Annual number of all trainees and advanced trainees in New Zealand, 2008-2017



Emergency Medicine Service Delivery

The following section presents for FACEMs and advanced trainees with workplace details, their ratios per population, by region (Table 20). New Zealand and New South Wales had the smallest number of FACEMs per population.

Table 20. FACEMs and advanced trainees per population, by region

Region	FACEMS	% of all FACEMS*	Adv. Trainees	% of all Adv. Trainees**	Population '000 ^{1,2}	SPR	FACEM per 100,000	STPR	FACEM and Adv. Trainee per 100,000
Australia	2021	88.5%	2033	90.5%	24702.9	1:12223	8.2	1:6093	16.4
NSW	542	23.7%	623	27.7%	7895.8	1:14568	6.9	1:6778	14.8
VIC	512	22.4%	434	19.3%	6358.9	1:12420	8.1	1:6722	14.9
QLD	476	20.8%	566	25.2%	4948.7	1:10396	9.6	1:4749	21.1
WA	233	10.2%	211	9.4%	2587.1	1:11103	9.0	1:5827	17.2
SA	124	5.4%	94	4.2%	1726.9	1:13927	7.2	1:7922	12.6
TAS	43	1.9%	36	1.6%	522.0	1:12140	8.2	1:6608	15.1
NT	45	2.0%	55	2.4%	246.1	1:5469	18.3	1:2461	40.6
ACT	46	2.0%	14	0.6%	412.6	1:8970	11.1	1:6877	14.5
New Zealand	262	11.5%	213	9.5%	4796.0	1:18305	5.5	1:10097	9.9

* Percent of all FACEMs in AU+NZ with available workplace details, excl. Locums (n=2283);

** Percent of all advanced trainees in AU+NZ with available placement details (n=2246)

Combined population = Australia (excluding Jervis Bay Territory, Christmas Island and the Cocos Islands) + New Zealand

SPR = Specialist (FACEM) to population ratio

STPR = Specialist (FACEM) and Specialist Trainee (Advanced Trainee) to population ratio

Population data sources:

¹ 3101.0 - Australian Demographic Statistics, Sep 2017

² National Population Estimates: At 31 Dec 2017

There has been a steady increase in the number of FACEMs and advanced trainees per population in Australia and New Zealand over the past eight years (Table 21). In 2010 there were 4.8 FACEMs per 100,000 population across Australia and New Zealand, which increased to 7.7 in 2017.

Table 21. FACEMs and advanced trainees per population, by region and year

Year	Australia		New Zealand		Total	
	FACEMs per 100,000	FACEM+ Adv. Trainees per 100,000	FACEMs per 100,000	FACEM+ Adv. Trainees per 100,000	FACEMs per 100,000	FACEM+ Adv. trainees per 100,000
2010	5.1	9.7	3.2	5.9	4.8	9.1
2011	5.3	10.0	3.4	6.1	5.0	9.4
2012	5.9	11.2	3.8	6.8	5.6	10.5
2013	6.3	11.7	4.2	7.2	5.9	11.0
2014	6.8	12.8	4.6	8.2	6.5	12.1
2015	7.3	13.0	4.8	7.8	6.9	12.2
2016	7.8	13.2	5.1	8.2	7.3	12.4
2017	8.2	16.4	5.5	9.9	7.7	15.4

What the Data Means

This report provides a detailed analysis of the emergency medicine specialist and trainee workforce in 2017, with comparisons from 2008 to 2017. ACEM has seen an increase in FACEMs coming through the program since 2008, with 2524 active FACEMs at the end of 2017. In 2017, FACEMs were predominantly working in metropolitan areas, however since reporting of FACEMs workplace data by region, there has been a slight increase in the proportion working in rural-regional areas. An increase in the number of trainees enrolled in the FACEM Training Program was also observed between 2007 and 2013, with trainee numbers remaining steady between 2013 and 2016. A spike in the number enrolling in 2017 was observed however, which presumably coincided with the introduction of the trainee selection process and a moratorium on trainee intake from the end of 2017.

These findings will be used to inform planning and policies on trainee intake and workforce distribution.

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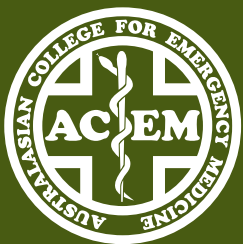
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