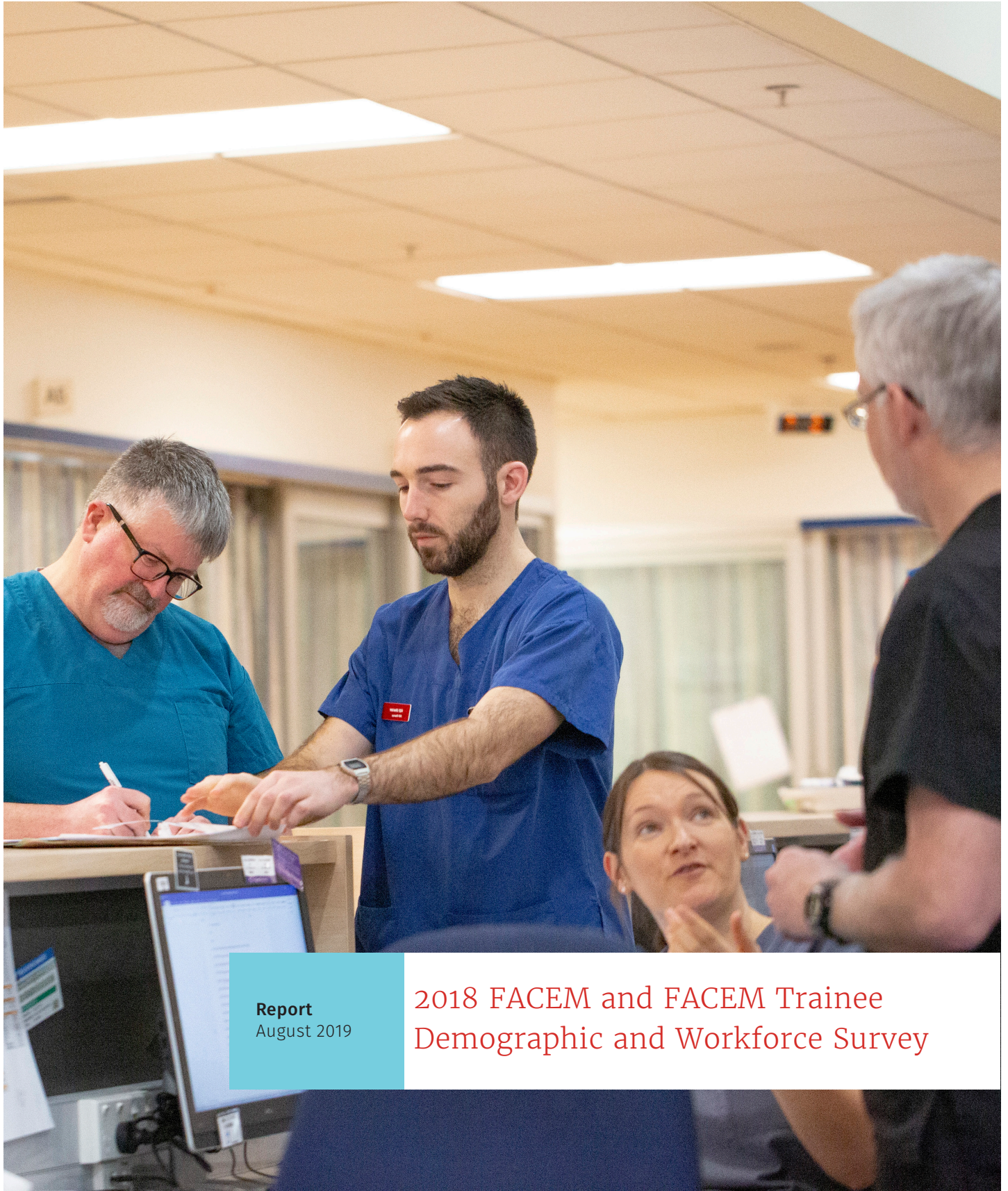


Australasian College for Emergency Medicine

acem.org.au



Report
August 2019

2018 FACEM and FACEM Trainee
Demographic and Workforce Survey

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1. 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 ACEM. The data included in this report provides insight into the emergency medicine workforce in Australia and Aotearoa New Zealand.

Table A. FACEM and FACEM trainee demographics, and workforce profile summary

FACEM and FACEM trainee demographics	Australia		New Zealand		Total*	
Total number of active FACEMs	2320		297		2724	
% Female	36.0%		42.4%		36.5%	
Average age (years)	45.9		46.4		46.0	
Number of new FACEMs in 2018	199		24		229	
Total number of advanced trainees	1613		176		1801	
% Female	48.6%		55.7%		49.3%	
Total number of provisional trainees	519		75		596	
% Female	43.7%		42.7%		43.6%	

FACEM workforce profile	Australia		New Zealand		Total	
	n	%	n	%	n	%
Working in EM (at least one workplace)	2104	95.0%	263	93.9%	2413	94.2%
Working equivalent of fulltime hours	1612	72.8%	216	77.1%	1886	73.6%
Working at 2 or more workplaces	1032	46.6%	67	23.9%	1108	43.3%
Working in non-metro settings	568	25.8%	164	59.0%	732	29.6%
FACEMs per 100,000 population**	8.8		5.7		8.3	

* Two FACEMs and three trainees had an unspecified gender and are excluded from the country columns and included in the total column. Included in the total column for FACEM and trainee demographics are 107 FACEMs and 14 trainees who were living overseas. Included in the total column for FACEM workforce profile are 60 FACEMs who were working overseas.

**Includes only Australia and New Zealand.

2. 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 (trainees) of the Australasian College for Emergency Medicine (ACEM) in 2018. Information from the ACEM member database was sourced and analysis was conducted by the ACEM Research Unit, Policy and Strategic Partnerships Department. This report applies to all FACEMs, and advanced and provisional FACEM 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.

3. The data

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

- Demographic data, including gender, age, 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 11 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 2018 to allow for comparisons over an eight to 11 year period from 2008 to 2018. 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 in the database.

There was a large amount of missing data relating to FACEM workplace details. Extensive data cleaning was also undertaken on the available workplace details of FACEMs and trainees. Data on hours worked per week across all workplaces was generated from two variables FACEMs are asked to enter into the My ACEM portal for each site of employment; employment type (full-time or part-time) and usual hours per week. This data was entered inconsistently, therefore if a FACEM recorded that they were working full-time at any of their workplaces they were classified as full-time across workplaces. If the FACEM only worked at one workplace and recorded that they were working part-time, they were classified as working as part-time across all workplaces. Where it was unknown if the FACEM worked full-time or part-time across workplaces the total number of 'usual hours per week' was calculated for all workplaces and used to classify if a FACEM was full-time (38 or more hours per week) or part-time (less than 38 hours per week). If a FACEM worked 38 or more hours across all workplaces they were classified as working full-time.

Where data is 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 trainees and excludes those working as locums 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), while New Zealand sites were classified as metropolitan if they were located in Auckland, Christchurch or Wellington, with all other sites classified as urban–regional.

4. Demographic characteristics of FACEMs

In 2018, there was a total of 2724 active FACEMs; 2320 FACEMs living in Australia, with 36% female, and 297 FACEMs living in New Zealand, with 42% female. A further 107 (4%) FACEMs were living outside of Australia and New Zealand.

Two (0.09%) Australian FACEMs self-identified as Aboriginal and five (1.7%) FACEMs in New Zealand self-identified as Māori, as recorded in their ACEM member profile. No FACEMs self-identified as Torres Strait Islander.

A total of 1129 active FACEMs (41%) gained their primary medical degree outside of Australia and New Zealand and were as such classified as International Medical Graduates.

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

Table 1. Distribution of all FACEMs by region and gender

Region	Female	Male	Total		Female
	n	n	n	%	%
Australia	834	1485	2320	85.2%	35.9%
NSW	234	386	620	22.8%	37.7%
VIC	214	384	599	22.0%	35.7%
QLD	199	369	568	20.9%	35.0%
WA	92	165	257	9.4%	35.8%
SA	47	94	141	5.2%	33.3%
TAS	17	38	55	2.0%	30.9%
NT	19	19	38	1.4%	50.0%
ACT	12	30	42	1.5%	28.6%
New Zealand	126	171	297	10.9%	42.4%
Overseas	33	73	107	3.9%	30.8%
Total	993	1729	2724	100.0%	36.5%

NB: Two FACEMs had an unspecified gender and are included in the Total column.

Table 2 presents the distribution of all active FACEMs by age group, region and gender, with two thirds (66% or 1796/2722) aged between 35 and 49 years. Fifteen percent of FACEMs in Australia (342/2320) and 13% in New Zealand (39/297) 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	2.5%	2.7%	5.1% (119)	10.0%	12.0%	22.0% (511)	8.8%	12.8%	21.5% (501)	7.8%	14.6%	22.4% (521)	4.0%	10.1%	14.1% (327)	2.2%	7.2%	9.4% (218)	0.7%	4.6%	5.3% (123)
NSW	2.9%	3.4%	6.3% (39)	10.0%	12.3%	22.3% (138)	7.6%	10.8%	18.4% (114)	9.0%	14.2%	23.2% (144)	4.4%	9.0%	13.4% (83)	3.1%	7.1%	10.2% (63)	0.8%	5.5%	6.3% (39)
VIC	1.8%	2.0%	3.8% (23)	9.2%	12.2%	21.4% (128)	8.0%	12.2%	20.2% (122)	9.2%	13.7%	22.9% (137)	4.5%	12.7%	17.2% (103)	2.0%	6.7%	8.7% (52)	1.0%	4.7%	5.7% (34)
QLD	2.8%	3.2%	6.0% (34)	12.3%	13.2%	25.5% (145)	10.2%	14.8%	25.0% (142)	5.8%	13.4%	19.2% (109)	2.3%	8.8%	11.1% (63)	1.1%	7.7%	8.8% (50)	0.5%	3.9%	4.4% (25)
WA	3.9%	1.9%	5.8% (15)	10.9%	8.6%	19.5% (50)	9.7%	15.2%	24.9% (64)	6.6%	17.9%	24.5% (63)	2.3%	8.6%	10.9% (28)	2.3%	7.8%	10.1% (26)	0.0%	4.3%	4.3% (11)
SA	0.0%	3.5%	3.5% (5)	4.3%	8.5%	12.8% (18)	9.2%	13.5%	22.7% (32)	6.4%	19.1%	25.5% (36)	9.2%	11.3%	20.6% (29)	2.8%	7.1%	9.9% (14)	1.4%	3.5%	5.0% (7)
TAS	1.8%	1.8%	3.6% (2)	0.0%	16.4%	16.4% (9)	12.7%	10.9%	23.6% (13)	7.3%	14.5%	21.8% (12)	5.5%	7.3%	12.7% (7)	1.8%	12.7%	14.5% (8)	1.8%	5.5%	7.3% (4)
NT	0.0%	0.0%	0.0% (0)	18.4%	13.2%	31.6% (12)	10.5%	7.9%	18.4% (7)	13.2%	10.5%	23.7% (9)	5.3%	13.2%	18.4% (7)	2.6%	0.0%	2.6% (1)	0.0%	5.3%	5.3% (2)
ACT	2.4%	0.0%	2.4% (1)	9.5%	16.7%	26.2% (11)	2.4%	14.3%	16.7% (7)	7.1%	19.0%	26.2% (11)	4.8%	11.9%	16.7% (7)	2.4%	7.1%	9.5% (4)	0.0%	2.4%	2.4% (1)
New Zealand	2.0%	1.7%	3.7% (11)	9.8%	8.4%	18.2% (54)	12.1%	11.4%	23.6% (70)	11.4%	13.5%	24.9% (74)	3.7%	12.8%	16.5% (49)	2.4%	5.1%	7.4% (22)	1.0%	4.7%	5.7% (17)
Overseas	2.8%	0.9%	3.7% (4)	12.3%	10.4%	22.4% (24)	4.7%	19.8%	24.3% (26)	3.8%	11.3%	15.0% (16)	5.7%	13.2%	18.7% (20)	1.9%	6.6%	8.4% (9)	0.0%	6.6%	6.5% (7)
Total	2.4%	2.5%	4.9% (134)	10.1%	11.6%	21.6% (589)	9.0%	12.9%	21.9% (597)	8.1%	14.4%	22.4% (611)	4.0%	10.5%	14.5% (396)	2.2%	7.0%	9.1% (249)	0.7%	4.7%	5.4% (148)

* Totals include two FACEMs who had an unspecified gender, one in Australia and one Overseas.

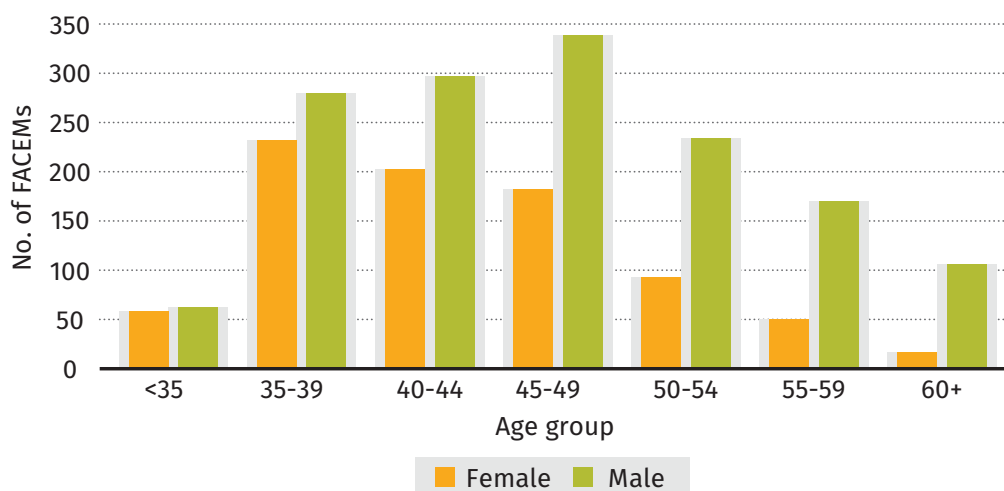
The average age of FACEMs was 46 years, with female FACEMs, on average, younger than male FACEMs (Table 3).

Table 3. Average age of FACEMs by country and gender (n=2724)

Region	Average age of FACEMs		
	Female	Male	Total
Australia	43.9	47.1	45.9
New Zealand	44.2	48.0	46.4
Overseas	42.8	47.8	46.4
Total	43.9	47.2	46.0

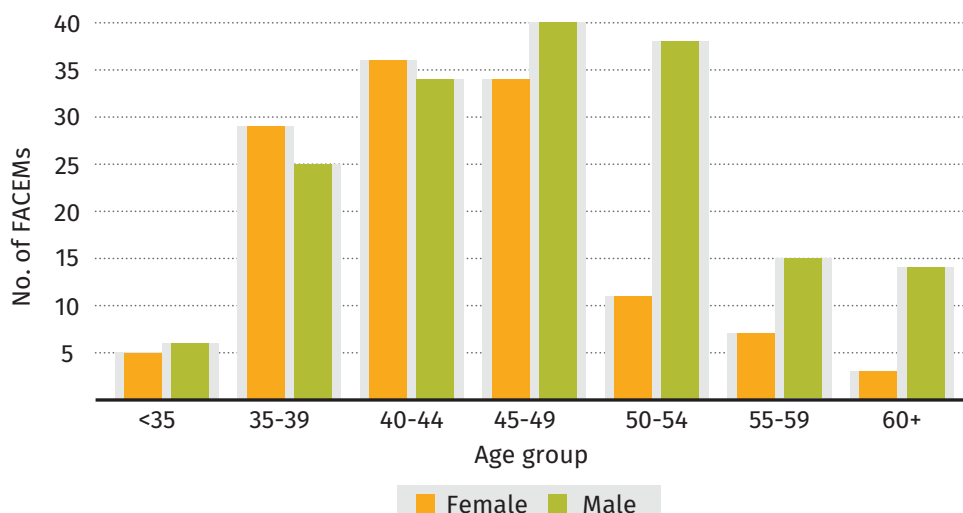
Figures 1 and 2 show the distribution of FACEMs by age group and gender in Australia and New Zealand, respectively.

Figure 1. FACEMs in Australia, by age group and gender (n=2319).



Excludes one FACEM who has an undefined gender

Figure 2. FACEMs in New Zealand, by age group and gender (n=297)



4.1 New FACEMs

In 2018, 229 new FACEMs were elected to Fellowship, with 90% (206) completing the FACEM Training Program and the remainder (23) obtained Fellowship via the Specialist International Medical Graduates (SIMG) pathway. Table 4 presents the 2018 new FACEMs by region, pathway and gender.

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

Region	FACEM Training Program			SIMG pathway			Total	
	Female n	Male n	Total n	Female n	Male n	Total n	n	% Female
Australia	73	114	187	1	11	12	199	37.2%
NSW	23	34	57	1	2	3	60	40.0%
VIC	15	25	40	0	1	1	41	36.6%
QLD	25	31	56	0	4	4	60	41.7%
WA	6	8	14	0	3	3	17	35.3%
SA	0	10	10	0	1	1	11	0.0%
TAS	0	0	0	2	2	4	4	50.0%
NT	0	0	0	1	2	3	3	33.3%
ACT	1	2	3	0	0	0	3	33.3%
New Zealand	9	8	17	3	4	7	24	50.0%
Overseas	1	1	2	0	4	4	6	16.7%
Total	83	123	206	4	19	23	229	38.0%

4.2 Workplace details of FACEMs

This section presents the workplace details of the 2494 FACEMs working in Australia and New Zealand with workplace details recorded. Of those, 2214 were working in Australia and 280 were working in New Zealand. There were missing workplace details for 124 (5%) FACEMs, 107 (4%) of those were working in Australia and 17 (6%) were working in New Zealand.

Overall workplace profile

The percentage of FACEMs working at one site only was 56% (1395), down from 63% in 2017 (1430). Subsequently the number of FACEMs working in two workplaces increased from 27% (624) in 2017 to 32% (806) in 2018. The number of FACEMs working at three or more sites increased from 10% (230) in 2017 to 12% (293) in 2018.

Almost all FACEMs (99%) were working in a hospital setting at one or more workplaces in both Australia (2190) and New Zealand (278). Of the FACEMs working at either a public or private a hospital, 96% were working in an emergency department (ED); 2104 in Australia and 263 in New Zealand. Similarly, 96% of FACEMs working in a hospital were working in the public sector.

The majority (70%, 1736) of FACEMs working in a hospital were located in metropolitan areas only, 74% in Australia (1622) and 41% in New Zealand (114). Twenty-one percent (520) were working in regional localities only (395 in Australia; 125 in New Zealand) and 9% (212) were working in both metropolitan and regional areas across two or more workplaces.

A total of 73% (1828) of FACEMs were working full-time hours; 73% of FACEMs in Australia and 77% of FACEMs in New Zealand.

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

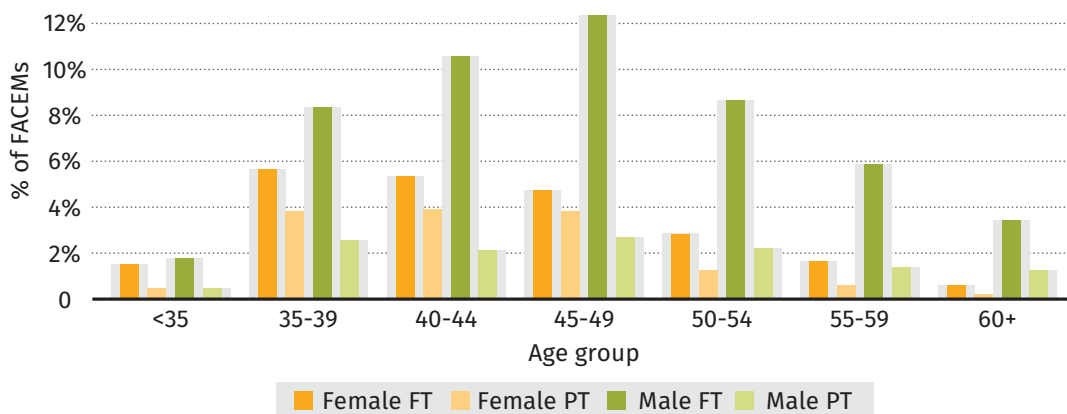
Table 5. Workplace summary of FACEMs working at one or more workplaces in Australia and New Zealand (N=2494)

	Australia		New Zealand		Total	
	n	%	n	%	n	%
Number with workplace details	2214		280		2494	
Number of workplaces						
One	1182	53.4%	213	76.1%	1395	55.9%
Two	744	33.6%	62	22.1%	806	32.3%
Three or more	288	13.0%	5	1.8%	293	11.7%
Workplace setting*	2213		280		2493	
Hospital only	2023	91.4%	270	96.4%	2293	92.0%
Non-hospital only	23	1.0%	2	0.7%	25	1.0%
Both hospital & non-hospital	167	7.5%	8	2.9%	175	7.0%
Working in a hospital at one or more workplaces	2190		278		2468	
Working in an ED in a hospital	2104	96.1%	263	94.6%	2367	95.9%
Working in a public hospital	2092	95.5%	275	98.9%	2367	95.9%
Metropolitan location only	1622	74.1%	114	41.0%	1736	70.3%
Regional location only	395	18.0%	125	45.0%	520	21.1%
Both metropolitan & regional locations	173	7.9%	39	14.0%	212	8.6%
Hours per week across all workplaces	2214		280		2494	
Full-time hours	1612	72.8%	216	77.1%	1828	73.3%
Less than full-time hours	602	27.2%	64	22.9%	666	26.7%

* Excludes 1 FACEM working as a 'Locum' with unknown employment location

Overall, 39% of females were working the equivalent of part-time hours, with 20% 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



FT=full-time; PT=part-time

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 Australia and New Zealand in an ED, by region

Region	Full-time		Part-time	
	n	%	n	%
Australia	1542	73.3%	562	26.7%
NSW	428	74.6%	146	25.4%
VIC	359	66.6%	180	33.4%
QLD	393	78.1%	110	21.9%
WA	166	72.8%	62	27.2%
SA	99	79.2%	26	20.8%
TAS	23	51.1%	22	48.9%
NT	40	83.3%	8	16.7%
ACT	34	81.0%	8	19.0%
New Zealand	209	79.5%	54	20.5%
Total	1751	74.0%	616	26.0%

NB: For FACEMs working across more than one region, primary workplace region was used.

Of the FACEMs working at one or more ED, similar proportions were working full-time when comparing those working in metropolitan areas only (74%) and those in regional areas only (72%) (Table 7). A slightly higher proportion of FACEMs (80%) who were working across both metropolitan and regional EDs were working full-time hours.

Table 7. FACEMs working full-time across one or more ED, by location of ED (n=2367)

Location	Full-time		Part-time	
	n	%	n	%
Metropolitan only	1219	73.7%	434	26.3%
Regional or rural only	364	72.2%	140	27.8%
Both metropolitan and regional/ rural	168	80.0%	42	20.0%

Primary workplace profile

A total of 92% (2289) of FACEMs were working as emergency physicians in an ED at their primary workplace.

In Australia, 90% (1998), and in New Zealand, 98% (272) 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 n	%	Total n	ED n	%	Total n	ED n	%	Total n		
Australia	1904	76.5%	1998	126	5.1%	140	53	2.1%	19	0.8%	2210
NSW	552	22.2%	571	4	0.2%	6	21	0.8%	3	0.1%	601
VIC	468	18.8%	486	50	2.0%	54	11	0.4%	2	0.1%	553
QLD	440	17.7%	461	44	1.8%	48	12	0.5%	9	0.4%	530
WA	198	8.0%	218	20	0.8%	23	5	0.2%	3	0.1%	249
SA	119	4.8%	126	5	0.2%	6	1	0.0%	1	0.0%	134
TAS	41	1.6%	45	3	0.1%	3	3	0.1%	0	0.0%	51
NT	47	1.9%	47	0	0.0%	0	0	0.0%	0	0.0%	47
ACT	39	1.6%	44	0	0.0%	0	0	0.0%	1	0.0%	45
New Zealand	256	10.3%	272	3	0.1%	3	1	0.0%	2	0.1%	278
Total	2160	86.8%	2270	129	5.2%	143	54	2.2%	21	0.8%	2488

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

More than half, 52% (143), of FACEMs in New Zealand were working in regional/rural locations at their primary workplace. Whereas only 22% (466) of FACEMs in Australia and 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	Metropolitan n	Regional or Rural n	Total n	Regional or Rural %
Australia	1687	466	2153	21.6%
NSW	467	113	580	19.5%
VIC	480	62	542	11.4%
QLD	380	137	517	26.5%
WA	186	57	243	23.5%
SA	130	2	132	1.5%
TAS	0	48	48	100.0%
NT	0	47	47	100.0%
ACT	44	0	44	0.0%
New Zealand	134	143	277	51.6%
Total	1821	609	2430	25.1%

NB: Excludes one FACEM whose primary workplace not in Australia or New Zealand. Excludes 55 FACEMs working in pre-hospital and retrieval medicine and eight FACEMs who had an unknown work location.

Figure 4. Distribution of FACEMs' primary workplace, by region and remoteness (n=2430)

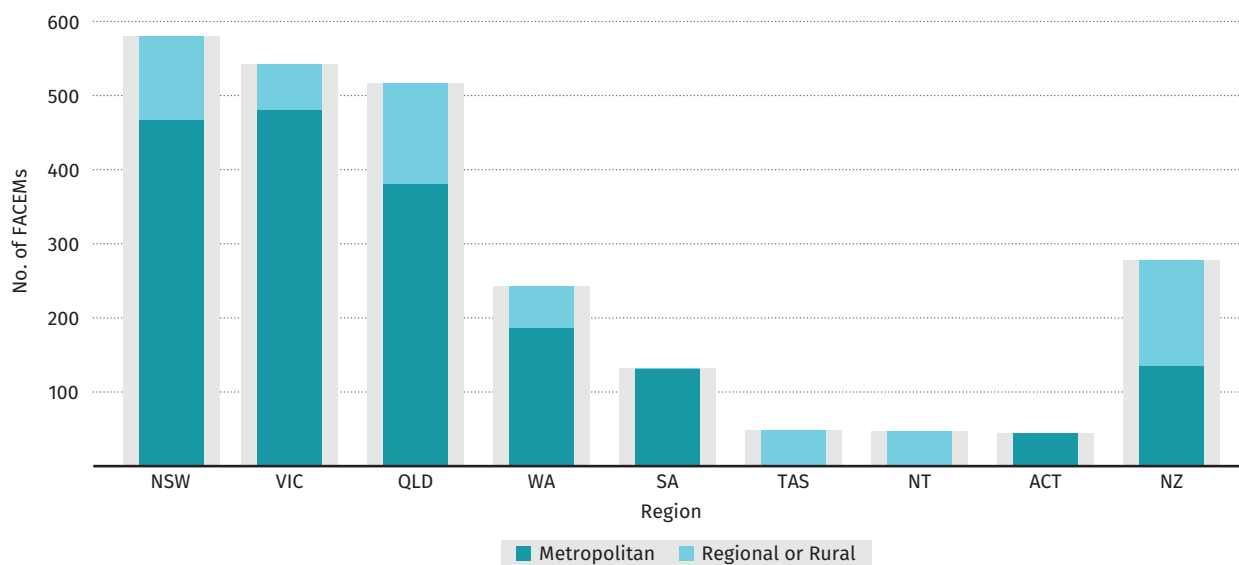


Table 10 presents FACEMs working in a hospital setting for their primary workplace, by location and sector. A total of 73% of FACEMs in Australia and 49% of FACEMs in New Zealand were working in a metropolitan public hospital for their primary workplace.

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

Region	Public Hospital		Private Hospital		Total
	n	%	n	%	n
Australia	1998	93.5%	140	6.5%	2138
<i>Metropolitan</i>	1553	72.6%	119	5.6%	1672
<i>Rural or Regional</i>	445	20.8%	21	1.0%	466
New Zealand	272	98.9%	3	1.1%	275
<i>Metropolitan</i>	134	48.7%	0	0.0%	134
<i>Rural or Regional</i>	138	50.2%	3	1.1%	141
Total	2270	94.1%	143	5.9%	2413

NB: Excludes one FACEM whose primary workplace is not in Australia or New Zealand. Excludes 72 FACEMs not working in a hospital, and eight FACEMs who had an unknown work location.

4.3 FACEM trends

Over the period 2008 to 2018, there was an average of 148 new FACEMs per annum; 134 per annum in Australia and 19 per annum in New Zealand. For the same period, the average attrition from the speciality was 10.7 FACEMs per annum overall; 6.8 in Australia, 1.8 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 2018.

Figure 5. Annual number of FACEMs in Australia and New Zealand 2008-2018

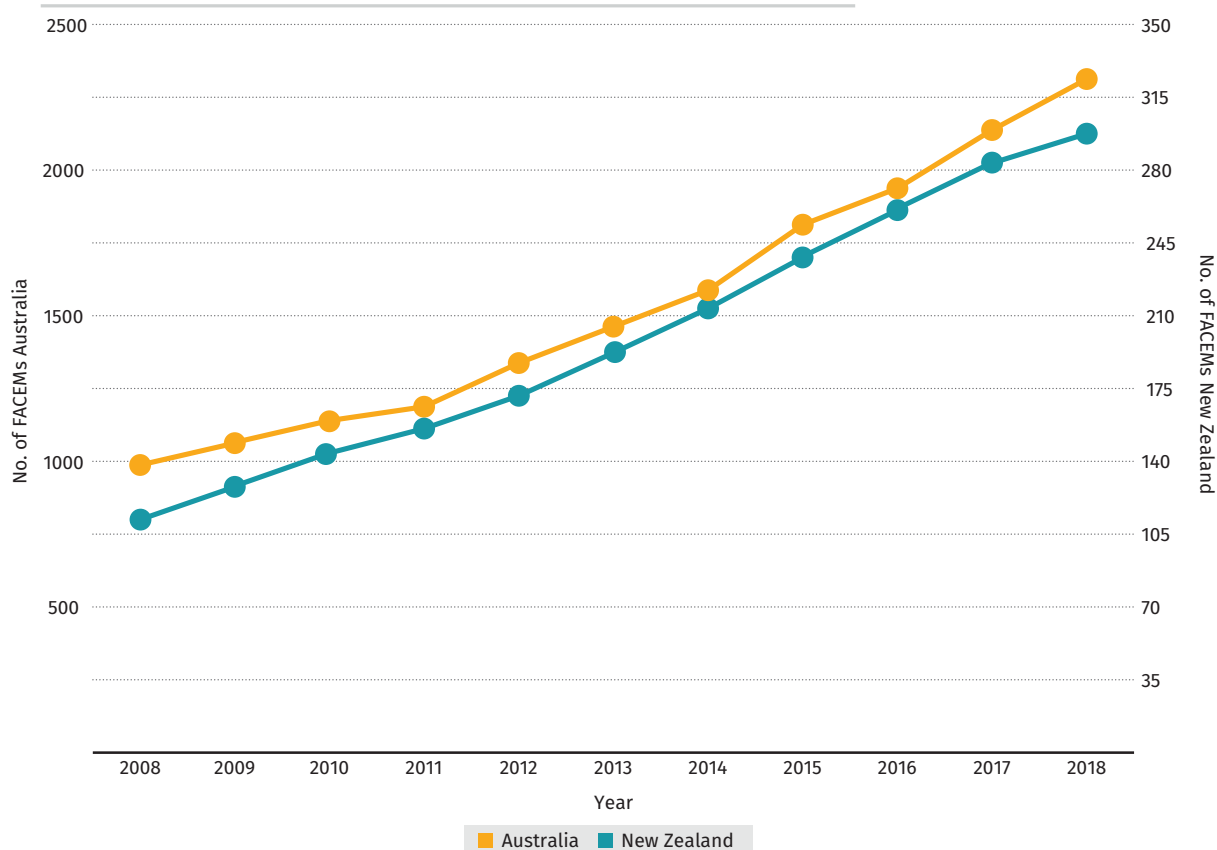


Table 11 presents a summary of trends relating to the demographic characteristics of FACEMs, intake and attrition for the period 2011 to 2018. The proportion of female FACEMs has risen steadily over the past seven years from 31% in 2011 to 37% in 2018, while the average age of FACEMs has remained steady at between 45 and 46 years. In 2017 the College saw the largest number of new FACEMs elected at 290. However, the number of new FACEMs elected in 2018 dropped to 229. Over half (52%) of the new FACEMs elected in 2018 were International Medical Graduates (IMGs), having gained their primary medical degree from overseas.

Table 11. FACEM trends for the period 2011-2018

Region	2011	2012	2013	2014	2015	2016	2017	2018	% change 2017-2018	% change 2011-2018
Total no.	1413	1562	1705	1859	2101	2252	2524	2724	8%	93%
% Female	29.6%	30.9%	31.9%	33.1%	33.6%	34.8%	36.2%	36.5%	1%	23%
Average age	44.7	45.5	45.7	46.3	45.4	45.6	45.4	46.0	1%	3%
% 55+ years of age	9.5%	10.4%	11.2%	13.8%	13.6%	14.3%	14.4%	14.6%	1%	53%
% Working PT	ND	ND	ND	25.0%	27.0%	26.0%	27.4%	26.4%	-4%	ND
% Rural-Regional	ND	ND	ND	20.2%	22.0%	24.4%	25.8%	29.6%	15%	ND
% Working 2+ workplaces	ND	ND	ND	23.6%	28.3%	32.8%	37.4%	41.4%	11%	ND
No. new FACEMs	96	152	144	164	249	181	290	229	-21%	139%
% Female	31.3%	45.4%	39.6%	45.7%	35.7%	47.5%	46.2%	38.0%	-18%	21%
% IMG	50.5%	58.0%	50.0%	45.9%	54.5%	47.6%	56.9%	52.0%	-9%	3%
Average age at election	36.6	37.4	37.6	37.4	37.5	37.6	37.5	37.0	-1%	1%
SIMG pathway	9.4%	14.5%	23.6%	17.7%	10.8%	9.4%	10.3%	10.0%	-2%	7%
No. withdrawals/ retirees	7	2	2	10	7	30	22	39	-100%	-100%

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

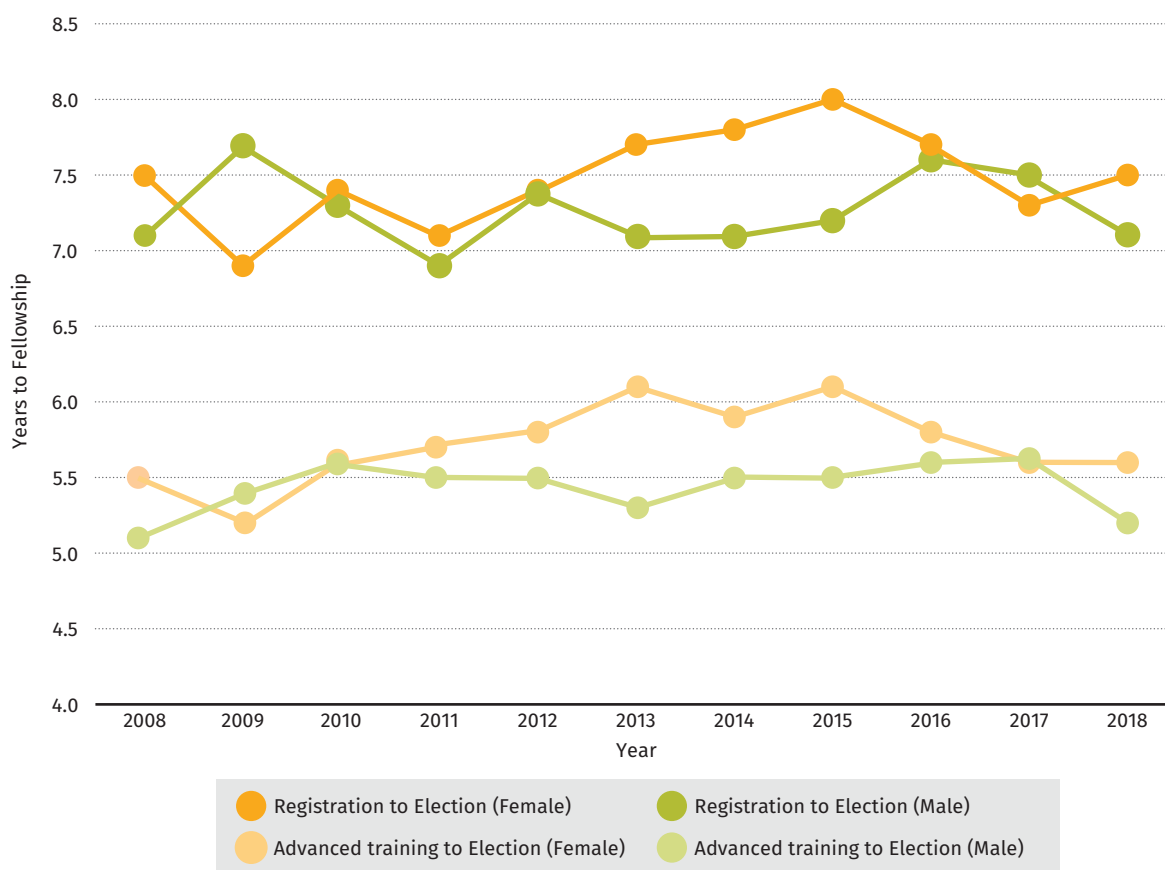
Over the period 2008 to 2018, new FACEMs who came through the FACEM Training Program took an average 7.4 years from ACEM registration, and 5.6 years from commencing advanced training, to completion of all training requirements and be elected to Fellowship (Table 12).

Table 12. Average time (years) for new FACEMs to achieve Fellowship, 2008-2018

Year	Total	ACEM registration to election			Advanced training commencement to election		
	n	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
2018	229	7.3	4.7	17.1	5.4	3.7	16.1
Total	1610	7.4	1.6	24.3	5.6	1.5	22.2

Females took slightly longer on average to complete training in 2018, while the time spent to complete training was more comparable in 2016 and 2017 (Figure 6).

Figure 6. Average time (years) for new FACEMs to achieve Fellowship by gender, 2008-2018



5. FACEM trainees

5.1 Demographic characteristics of FACEM trainees

There was a total of 2397 trainees enrolled in the FACEM Training Program at the end of 2018, including 1801 advanced trainees and 596 provisional trainees. A total of 145 trainees joined the FACEM Training Program in 2018, with 159 withdrawing from the program (including 72 advanced trainees). The number of FACEM trainees who self-identified as Aboriginal in 2018 was ten (0.5%), with one (0.1%) self-identifying as Torres Strait Islander and seven (2.8%) self-identifying as Māori. Less than half (957, 42%) of all trainees obtained their primary medical degree overseas (International Medical Graduates).

For both the advanced and provisional trainees, 48% (887 and 260 respectively) were female. The number of 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	782	828	1610	227	292	519	2132	88.9%	47.3%
NSW	235	227	462	71	95	166	628	29.5%	48.7%
VIC	171	186	357	50	60	110	468	19.5%	47.2%
QLD	214	234	448	59	89	148	597	24.9%	45.7%
WA	80	97	177	24	26	50	227	9.5%	45.8%
SA	31	49	80	12	9	21	102	4.3%	42.2%
TAS	18	12	30	4	4	8	38	1.6%	57.9%
NT	22	13	35	2	3	5	40	1.7%	60.0%
ACT	11	10	21	5	6	11	32	1.3%	50.0%
New Zealand	98	78	176	32	43	75	251	10.5%	51.8%
Overseas	7	5	12	1	1	1	14	0.6%	3.2%
Total	887	911	1798	260	336	596	2397	100%	47.9%

*Four trainees had an unspecified gender recorded, they are excluded from the Advanced and Provisional trainee breakdown.

Table 14 presents the distribution of trainees by region, age group and gender. The majority of trainees, 65% (1548/2393), 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	9.4%	9.8%	19.2% (409)	22.6%	22.2%	44.8% (953)	10.5%	11.1%	21.6% (460)	3.1%	6.3%	9.4% (199)	1.3%	2.4%	3.7% (79.0)	0.6%	0.8%	1.3% (28.0)
NSW	8.4%	7.8%	16.2% (102)	25.6%	23.4%	49.0% (308)	10.0%	10.8%	20.9% (131)	2.5%	6.4%	8.9% (56)	1.6%	1.4%	3.0% (19)	0.5%	1.4%	1.9% (12)
VIC	11.4%	9.0%	20.4% (95)	20.8%	21.7%	42.5% (198)	11.4%	10.7%	22.1% (103)	3.0%	6.0%	9.0% (42)	0.6%	3.9%	4.5% (21)	0.2%	1.3%	1.5% (7)
QLD	11.4%	13.1%	24.5% (146)	21.0%	21.0%	41.9% (250)	7.7%	11.1%	18.8% (112)	3.7%	6.5%	10.2% (61)	1.3%	2.3%	3.7% (22)	0.7%	0.2%	0.8% (5)
WA	7.5%	11.0%	18.5% (42)	21.6%	24.2%	45.8% (104)	13.2%	11.5%	24.7% (56)	1.8%	4.8%	6.6% (15)	0.9%	2.6%	3.5% (8)	0.9%	0.0%	0.9% (2)
SA	5.0%	6.9%	11.9% (12)	22.8%	24.8%	47.5% (48)	7.9%	14.9%	22.8% (23)	4.0%	10.9%	14.9% (15)	2.0%	0.0%	2.0% (2)	1.0%	0.0%	1.0% (1)
TAS	7.9%	5.3%	13.2% (5)	18.4%	13.2%	31.6% (12)	15.8%	13.2%	28.9% (11)	10.5%	7.9%	18.4% (7)	5.3%	2.6%	7.9% (3)	0.0%	0.0%	0.0% (0)
NT	2.5%	5.0%	7.5% (3)	32.5%	15.0%	47.5% (19)	22.5%	15.0%	37.5% (15)	0.0%	5.0%	5.0% (2)	0.0%	0.0%	0.0% (0)	2.5%	0.0%	2.5% (1)
ACT	0.0%	12.5%	12.5% (4)	18.8%	25.0%	43.8% (14)	25.0%	3.1%	28.1% (9)	3.1%	0.0%	3.1% (1)	3.1%	9.4%	12.5% (4)	0.0%	0.0%	0.0% (0)
New Zealand	14.7%	15.1%	29.9% (75)	22.3%	18.3%	40.6% (102)	8.4%	8.0%	16.3% (41)	3.2%	5.6%	8.8% (22)	2.4%	0.4%	2.8% (7)	0.8%	0.8%	1.6% (4)
Overseas	0.0%	7.1%	7.1% (1)	35.7%	21.4%	57.1% (8)	21.4%	7.1%	28.6% (4)	0.0%	0.0%	0.0% (0)	0.0%	7.1%	7.1% (1)	0.0%	0.0%	0.0% (0)
Total	9.9%	10.4%	20.3% (485)	22.6%	21.8%	44.4% (1063)	10.3%	10.8%	21.1% (505)	3.1%	6.2%	9.2% (221)	1.4%	2.2%	3.6% (87)	0.6%	0.8%	1.3% (32)

NB: Excludes three trainees with no or unspecified gender and one with no date of birth recorded

The average age of trainees was 34.3 years. On average, females were slightly younger than males (Table 15).

Table 15. Average age of FACEM trainees by country and gender

Region	Average age of FACEM trainees		
	Female	Male	Total
Australia	33.9	34.8	34.4
New Zealand	33.7	33.6	33.7
Overseas	33.9	35.1	34.4
Total	33.9	34.7	34.3

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

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

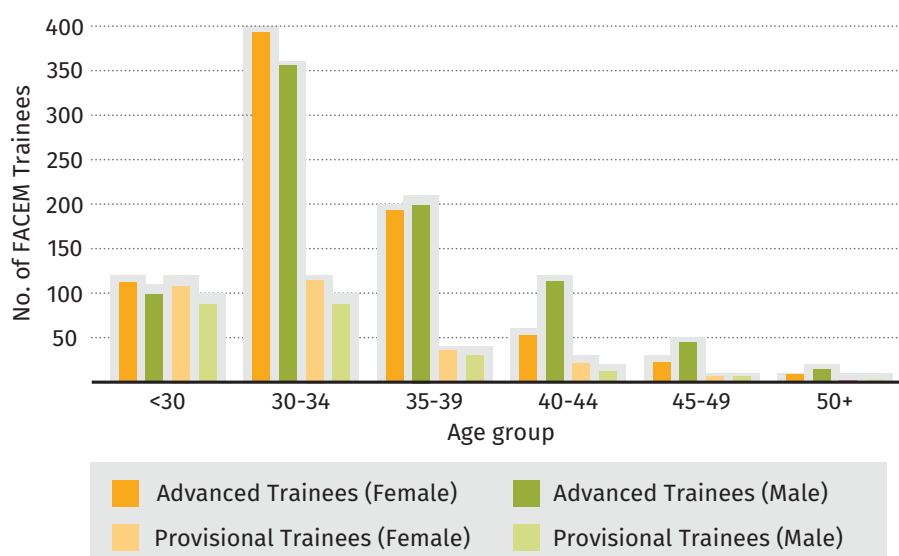
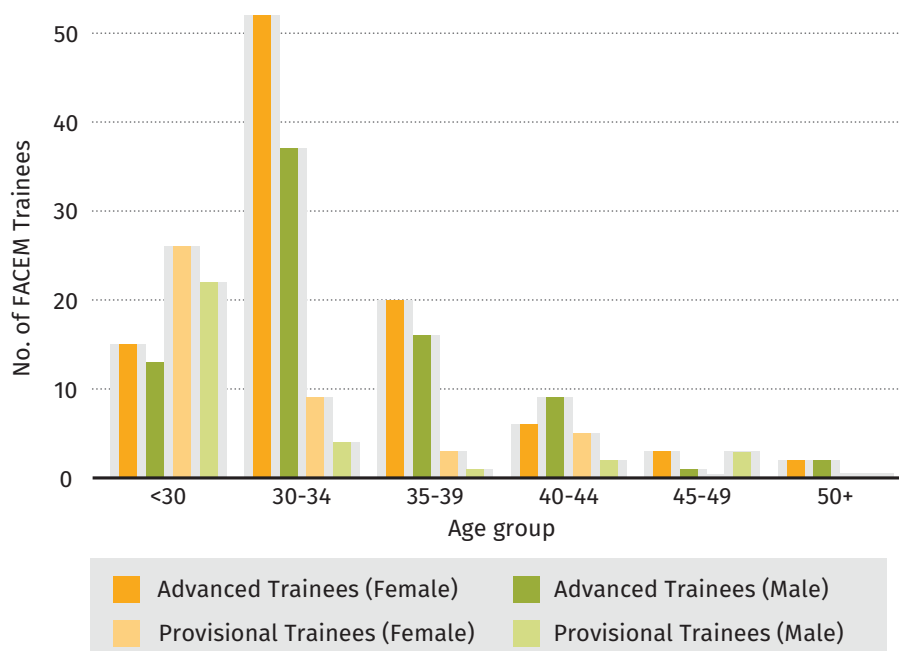


Figure 8. FACEM trainees in New Zealand, by age group and gender



5.2 FACEM trainee placement details

This section presents the placement details of all FACEM trainees, based on their last placement in 2018. Of the 2397 trainees, 295 were on a break in training, including 176 (7.3%) females and 119 (5%) males, and a further 42 had no placement details recorded, with all excluded from further analysis. Nine trainees were working overseas, leaving 2051 trainees undertaking a placement in Australia or New Zealand. A total of 36 were working in a pre-hospital/ retrieval medicine placement, with over half of these trainees only working in retrieval service.

Most of the trainees were working full-time (80%) across their placements. A total of 22 trainees were undertaking two part-time placements. Half (11) of these trainees were completing both placements at the same hospital and a further two were completing both placements in networked hospitals. Almost all (12/13) of the trainees with placements at the same or networked hospitals had one placement in ED and one in a different discipline.

Only 18% (320) of trainees in Australia and almost half, 47% (92), 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 24 trainees working in a non-hospital pre-hospital/ retrieval medicine placement.

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

Region	Metropolitan	Regional or Rural	Total	Regional or Rural
Australia	1511	320	1831	22.5%
NSW	481	56	537	10.4%
VIC	354	38	392	9.7%
QLD	410	113	523	21.6%
WA	152	40	192	20.8%
SA	84	0	84	0.0%
TAS	0	33	33	100.0%
NT	0	40	40	100.0%
ACT	30	0	30	0.0%
New Zealand	104	92	196	46.9%
Total	1615	412	2027	20.3%

NB: Excludes 24 FACEM trainees working in pre-hospital/retrieval medicine.

Figure 9: Distribution of FACEM trainees workplace, by region and remoteness (n=2027)

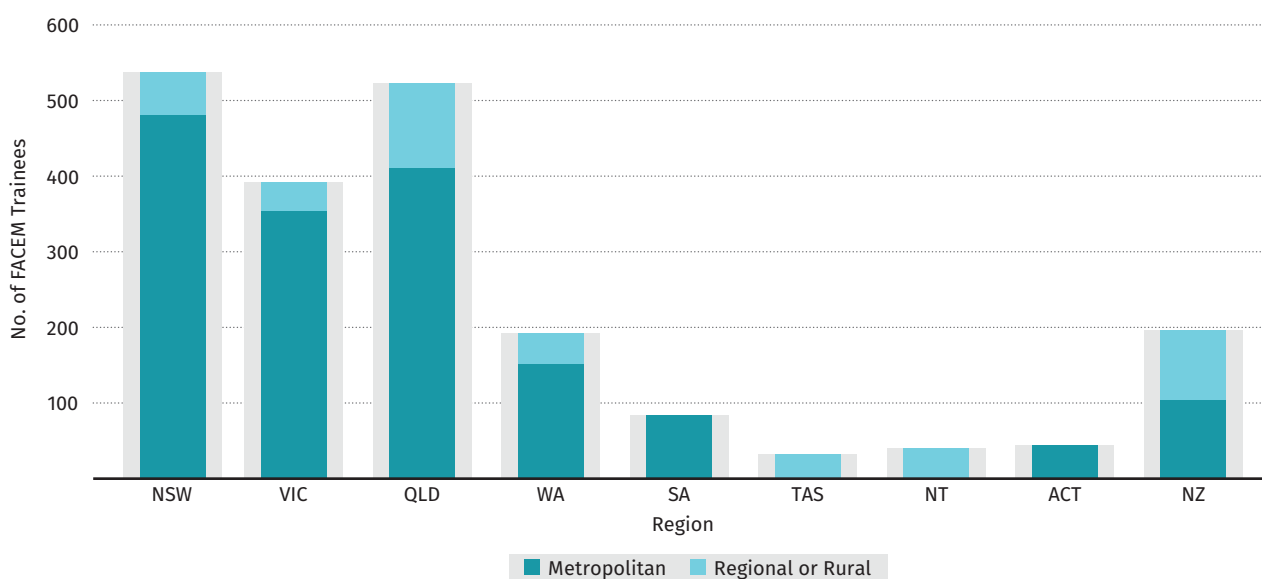


Table 17 displays the primary workplace profile of trainees, including region, sector (public, private or non-hospital) and discipline. Not surprisingly, the majority of trainees (1390, 68%) were working in an ED in a public hospital.

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

Region	ED			Public Hospital			Private Hospital			Non-Hospital			Total			
	n	%	n	CC	Pre-hospital	Other	Total	ED	CC	Total	Pre-Hospital	Other	Total	n	%	
Australia	1254	67.6%	273	14.7%	7	0.4%	230	12.4%	1764	31	1.7%	10	0.5%	41	2.3%	50
NSW	377	20.3%	78	4.2%	5	0.3%	64	3.5%	524	3	0.2%	1	0.1%	4	0.3%	14
VIC	263	14.2%	57	3.1%	0	0.0%	49	2.6%	369	15	0.8%	4	0.2%	19	0.3%	9
QLD	342	18.4%	86	4.6%	0	0.0%	84	4.5%	512	5	0.3%	2	0.1%	7	0.3%	9
WA	130	7.0%	29	1.6%	0	0.0%	15	0.8%	174	7	0.4%	3	0.2%	10	0.1%	10
SA	55	3.0%	15	0.8%	0	0.0%	12	0.6%	82	1	0.1%	0	0.0%	1	0.1%	3
TAS	28	1.5%	1	0.1%	0	0.0%	4	0.2%	33	0	0.0%	0	0.0%	0	0.0%	0
NT	33	1.8%	4	0.2%	2	0.1%	1	0.1%	40	0	0.0%	0	0.0%	0	0.3%	5
ACT	26	1.4%	3	0.2%	0	0.0%	1	0.1%	30	0	0.0%	0	0.0%	0	0.0%	0
New Zealand	136	69.4%	37	18.9%	1	0.5%	19	9.7%	193	0	0.0%	0	0.0%	0	0.0%	3
Total	1390	67.8%	310	15.1%	8	0.4%	249	12.1%	1957	31	1.5%	10	0.5%	41	1.1%	53

ED=emergency medicine in an ED; CC=critical care medicine i.e. ICU/anaesthetics; Pre-hosp=pre-hospital/retrieval medicine; Other (hospital): e.g. toxicology, general medicine; Other (non-hospital): e.g. general practice, research.

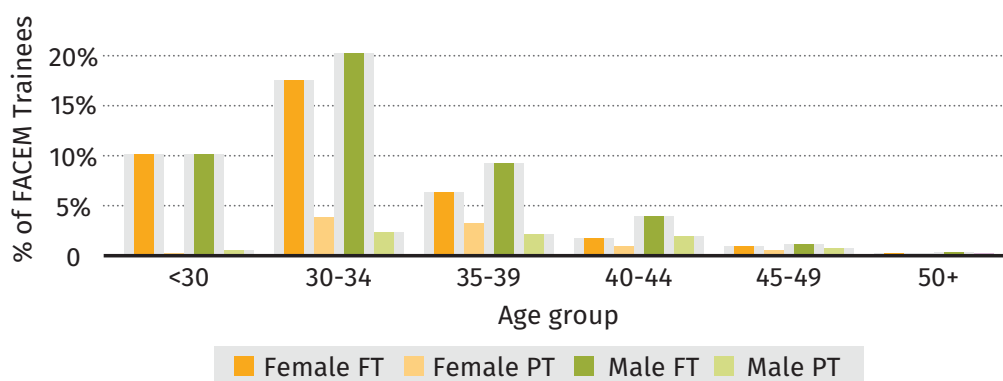
For the trainees working in a hospital, the majority in Australia and New Zealand were working in a public hospital in a metropolitan location (Table 18).

Table 18. Primary training placement location and sector for FACEM trainees working in a hospital setting in Australia or New Zealand

Region and Remoteness	Public Hospital		Private Hospital		Total n
	n	%	n	%	
Australia	1764	97.7%	41	2.3%	1805
<i>Metropolitan</i>	1460	80.9%	35	1.9%	1495
<i>Rural or Regional</i>	304	16.8%	6	0.3%	310
New Zealand	193	100.0%	0	0.0%	193
<i>Metropolitan</i>	103	53.4%	0	0.0%	103
<i>Rural or Regional</i>	90	46.6%	0	0.0%	90
Total	1957	97.9%	41	2.1%	1998

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 (83%; n=1702) were working full-time.

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



FT=full-time; PT=part-time

5.3 FACEM trainee trends

Table 19 presents the trainee trends over the period 2011 to 2018, including the total number of trainees, the number of new and withdrawing trainees and the proportion who were female. Over the period 2011 to 2018, there has been a 22% increase in the number of trainees and a small but steady increase in the proportion of female trainees, increasing from 41% in 2011 to 48% in 2018. The lowest trainee intake was observed in 2018.

Table 19. FACEM trainee trends for the period 2011-2018

Region	2011	2012	2013	2014	2015	2016	2017	2018	% change 2017-2018	% change 2011-2018
Total no.	1973	2078	2272	2299	2320	2348	2552	2397	-6.1%	21.5%
% Female	41%	42%	43%	44%	46%	47%	47%	48%	1.8%	16.7%
% IMG	58%	57%	58%	54%	50%	48%	48%	40%	-16.8%	-31.2%
No. Advanced trainees	1213	1347	1397	1596	1572	1662	1649	1801	9.2%	48.5%
% Rural-Regional	ND	ND	ND	ND	16%	17%	19%	20%	4.2%	n/a
No. new FACEM trainees	305	282	482	306	389	369	659	143	-78.3%	-53.1%
% Female	48%	44%	43%	49%	52%	48%	45%	45%	-0.5%	-6.8%
% IMG	54%	58%	58%	33%	32%	62%	40%	15%	-61.5%	-71.5%
No. Advanced trainee withdrawals	31	32	50	57	50	72	87	72	-17.2%	132.3%

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 2018 is presented below.

Figure 11. Annual number of all FACEM trainees and advanced trainees in Australia, 2008-2018

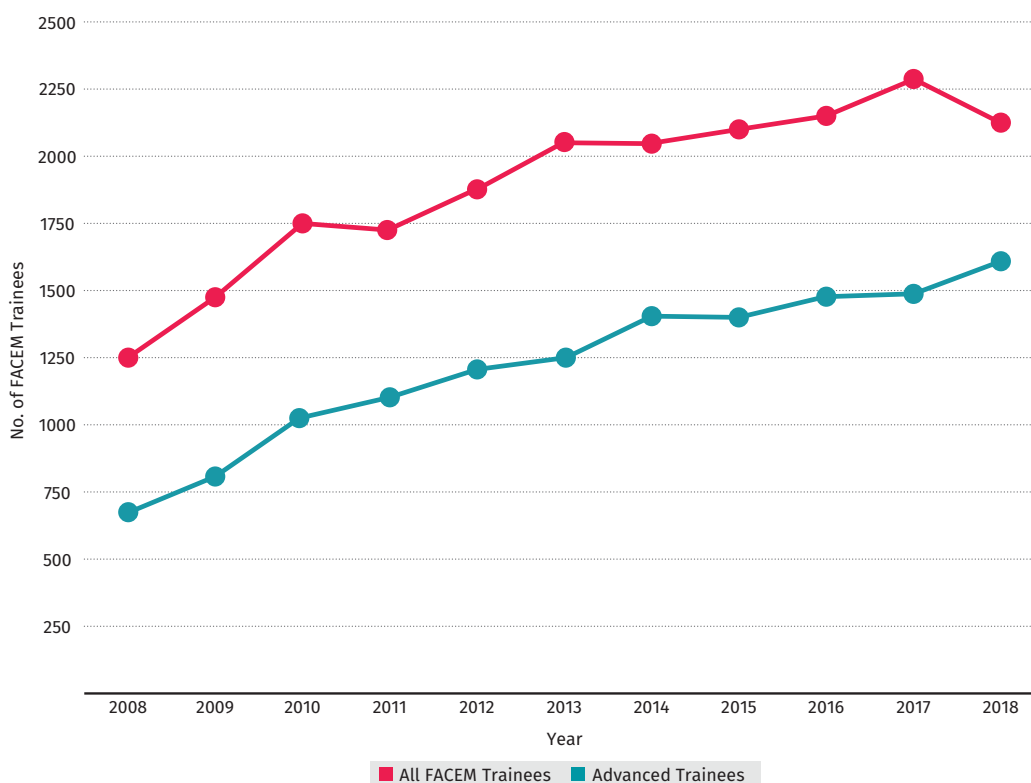
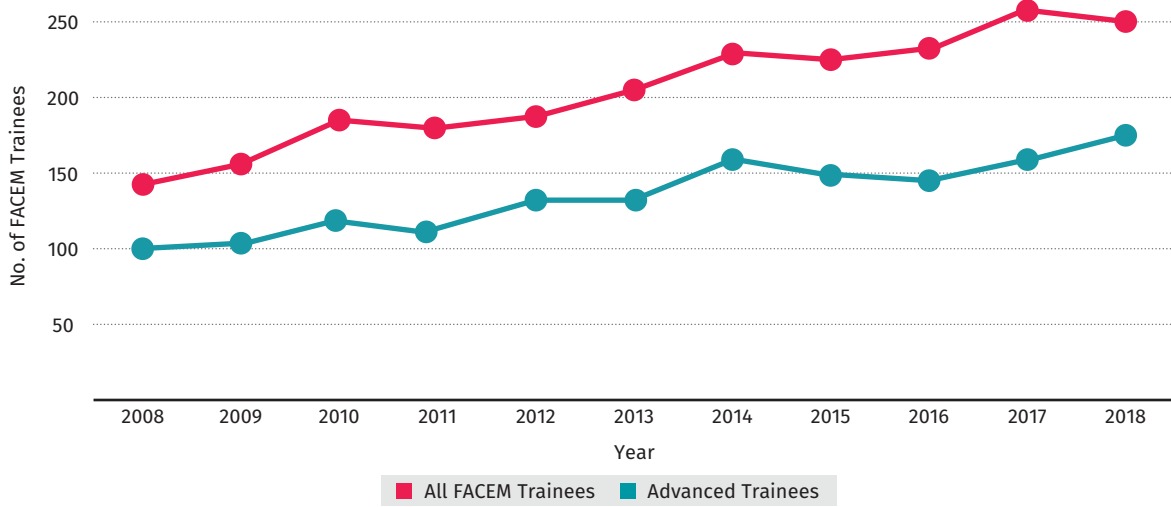


Figure 12. Annual number of all FACEM trainees and advanced trainees in New Zealand, 2008-2018



6. Emergency medicine service delivery

The following section presents data for FACEMs and advanced trainees with workplace details, their ratios per population, by region (Table 20) and location (Table 21). Northern Territory had the largest number of FACEMs per population, while New Zealand 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}	FPR	FACEM per 100,000	FTPR	FACEM+ Adv. trainee per 100,000
Australia	2212	88.8%	1426	91.0%	25,097.3	1:11346	8.8	1:6899	14.5
NSW	598	24.0%	401	25.6%	8,023.7	1:13418	7.5	1:8032	12.5
VIC	559	22.4%	310	19.8%	6,497.7	1:11624	8.6	1:7477	13.4
QLD	531	21.3%	407	26.0%	5,033.1	1:9479	10.6	1:5366	18.6
WA	250	10.0%	157	10.0%	2,602.4	1:10410	9.6	1:6394	15.6
SA	131	5.3%	68	4.3%	1,740.7	1:13288	7.5	1:8747	11.4
TAS	49	2.0%	25	1.6%	529.9	1:10814	9.2	1:7161	14.0
NT	48	1.9%	37	2.4%	247.2	1:5149	19.4	1:2908	34.4
ACT	46	1.8%	21	1.3%	422.5	1:9184	10.9	1:6306	15.9
New Zealand	280	11.2%	141	9.0%	4,929.7	1:17606	5.7	1:11710	8.5

*Percent of all FACEMs in AU+NZ with available workplace details, excl. Locums (n=2492);

**Percent of all advanced trainees in AU+NZ with available placement details (n=2567)

FPR = FACEM to population ratio

FTPR = FACEM and Advanced Trainee to population ratio

Population data sources:

¹ 3101.0 - Australian Demographic Tables, Table 4 Sep 2018

² National Population Estimates: At 31 Dec 2018

Table 21. FACEMs and advanced trainees per population, by location

Region	FACEMs	% of all FACEMs*	Adv. Trainees**	% of all Adv. Trainees**	Population '000 ^{1,2}	% Combined Population	FPR	FACEM per 100,000	FTPR	FACEM+ Adv. trainee per 100,000
Australia										
Metropolitan	1672	78.2%	1511	82.5%	18003.5	60.3%	1 : 10767.7	9.3	1 : 5656.2	17.7
Regional	466	21.8%	320	17.5%	6989.3	23.4%	1 : 14998.5	6.7	1 : 8892.3	11.2
New Zealand										
Metropolitan	134	608.0%	104	770.9%	2300.6	7.7%	1 : 17168.7	5.8	1 : 9666.4	10.3
Regional	141	169.5%	92	163.3%	2584.7	8.7%	1 : 18331.2	5.5	1 : 11093.1	9.0

*Includes active FACEMs with primary workplace data who were working in Australia and New Zealand

**Includes advanced FACEM trainees with primary placement data who were working in Australia and New Zealand

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

FPR = FACEM to population ratio, FTPR = FACEM and Advanced Trainee to population ratio

Population data sources: ¹(Australian Bureau of Statistics, Regional Population Growth, Australia, 2018) and ²(Statistics New Zealand, Subnational population estimates tables, 2018)

There has been a steady increase in the number of FACEMs and advanced trainees per population in Australia and New Zealand over the past nine years (Table 22). In 2010 there were 4.8 FACEMs per 100,000 population across Australia and New Zealand, which increased to 8.3 in 2018.

Table 22. 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
2018	8.8	15.2	5.7	9.3	8.3	14.3

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

7. What the data means

This report provides a detailed analysis of the emergency medicine specialist and FACEM trainee workforce in 2018, with comparisons from 2008 to 2018. ACEM has seen an increase in the number of FACEMs coming through the program since 2008, with 2724 active FACEMs at the end of 2018. In 2018, 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 observed between 2008 and 2013, with trainee numbers remaining steady between 2013 and 2017 before decreasing significantly in 2018. This 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 FACEM trainee intake and workforce distribution.

8. References

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9. Suggested citation

Australasian College for Emergency Medicine. (2019). FACEM & FACEM Trainee Demographic and Workforce 2018 Report. ACEM Report: Melbourne.

10. Contact for further information

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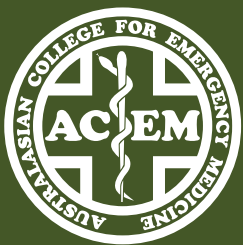
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