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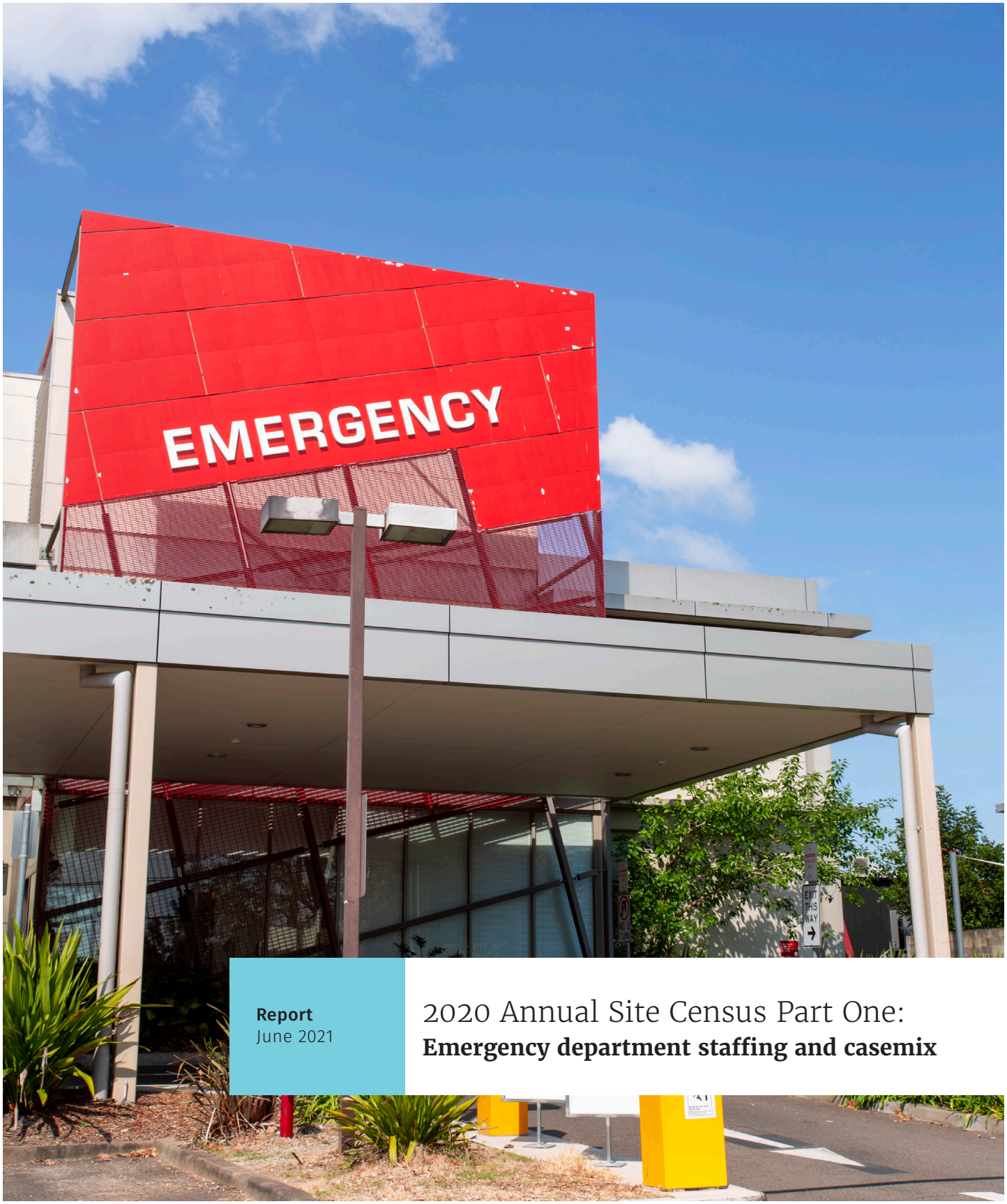


Report
June 2021

2020 Annual Site Census Part One:
Emergency department staffing and casemix

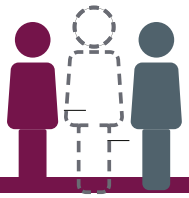
Australasian College
for Emergency Medicine

Key findings: 2020 Annual Site Census

Part One: emergency department casemix and staffing

The Australasian College for Emergency Medicine's 2020 **Annual Site Census** was distributed to all 150 of the ACEM-accredited emergency departments; 149 participated. The census reports on ED staffing, casemix, resourcing, hospital services, and ED networks. Part one focuses on emergency department casemix and staffing.

57% of large regional Australian EDs had FACEM and FACEM trainee vacancies unfilled **for six or more months**



32% of Australian and **28%** of Aotearoa New Zealand EDs **met the G23 minimum** FACEM staffing model

100% of EDs the ACT and **83%** in New South Wales **rely on VMOs** rather than a permanent FACEM workforce

Seven sites reported seeing Aboriginal and/or Torres Strait Islander presentations while reporting no access to an **Indigenous Health Liaison Officer**

706

hours on ambulance bypass

The average number of hours emergency departments reported that they were on ambulance bypass increased from **273 hours** in the 2018/19 financial year to **706 hours** in the 2019/20 financial year (total range: four to 3502 hours).

Length of stay

90.1% of emergency departments reported length of stays of more than 24 hours – up from 83.8% the previous year.

despite a **decrease in annual presentations**

For the full findings, please refer to:
Australasian College for Emergency Medicine (2021), 2020 Annual Site Census Part One: casemix and staffing, Melbourne

jump to Part Two

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1. Executive Summary

1.1 Background

This report presents the findings from the Australasian College for Emergency Medicine's (ACEM's) Annual Site Census, which was distributed in September 2020 to Directors of Emergency Medicine (DEMs) and Directors of Emergency Medicine Training (DEMTs) at all 150 of the ACEM accredited emergency departments (EDs). The Census is a combined initiative by the Research Unit within the Policy, Research and Partnerships Department, and the Accreditation Unit within the Education and Training Department. The Census focuses on ED staffing, casemix, staff training and resourcing, as well as broader hospital services available, with this report presenting the findings from the first two sections of the Census, ED staffing and casemix.

1.2 Summary of Findings

Of the 150 accredited EDs, 149 participated (130 in Australia and 19 in New Zealand) in the Census.

1.2.1 *ED Activity*

- Attendances between 1 July 2019 and 30 June 2020 averaged over 53,000 across Australian EDs and over 50,000 across New Zealand EDs.
- Three Australian EDs and one ED in New Zealand saw greater than 100,000 attendances during the period.
- Of the responding 118 Australian EDs, 6.6% of patient attendances were Aboriginal and/or Torres Strait Islander Peoples, and 20.5% of patient attendances to the 18 responding New Zealand EDs were Māori.
- Tasmania had the greatest percentage of patients spending greater than 24 hours in their EDs.

1.2.2 *ED Staffing*

- Only 31.7% of the 124 responding Australian EDs and 27.8% of the 19 responding New Zealand EDs met the ACEM G23 minimum FACEM staffing model; however, this represented an increase on the number and percentage of EDs meeting G23 in 2019.
- Large Regional and Large metropolitan EDs in Australia and Regional New Zealand EDs were more likely to report having unfilled FACEM FTE.
- Almost half (46.2%) of Australian EDs employed Visiting Medical Officers, with only 10.5% of New Zealand EDs employing them.
- 96 EDs indicated that trainees were rostered on the floor during nights, while only nine EDs indicated EM Specialists were rostered on the floor during nights.
- In Australia there was one EM Specialist FTE to an average of 4,590 ED attendances, and one FACEM trainee FTE to 8,206 attendances. In New Zealand there was one EM Specialist FTE to an average of 3,956 ED attendances and one FACEM trainee to 7,572 attendances.
- The average EM Specialist FTE to FACEM trainee FTE ratio was one to 0.9 across all EDs.

2. Purpose and Scope

The purpose of this report is to provide the findings from the Australasian College for Emergency Medicine's (ACEM's) Annual Site Census, in particular the first half of the Census, which focused predominantly on ED staffing and casemix. The Census is distributed annually to all Australian and Aotearoa New Zealand emergency departments (EDs) accredited by ACEM and is a joint initiative between the Research Unit within the Policy, Research and Partnerships Department and the Accreditation Unit within the Education and Training Department. Findings from the Census will be used to monitor accredited sites as well as provide an evidence-base for ACEM policy and advocacy activities relating to ED workforce and functioning.

3. Methodology

The Census in its current form was implemented in 2016 and is a mandatory activity for accredited sites to complete and was distributed to all 150 accredited EDs in Australia and New Zealand in August 2020. The Census contained questions on ED staffing and activity; ED resources and services; EM Networks; and the use of Restrictive Practices in the ED. ED activity and performance data was sought for the period 1 July 2019 to 30 June 2020, with all other data being current at the time of completing the survey. Results will be presented in two reports, this one which focuses on ED staffing and casemix, and a second report which will focus on ED resources, hospital services and networks. Refer to Appendix 1 for the survey tool.

The Census was sent via email to all DEMs and DEMTs at accredited sites on 11 September 2020. One reminder email was sent to non-responding DEMs and DEMTs, from the Research Unit and two further reminder emails were sent from the Accreditation Unit Manager, in the Education and Training Department. The final Census was received on February 10, 2021, and sites were followed up for missing data until February 12, 2021.

The Census was available to complete using a pdf fillable form. DEMs and DEMTs were emailed a copy to complete, with respondents able to complete the Census in their own time as they sourced the required data. Sites that could not use the pdf fillable form were provided with a Microsoft Word version to complete.

Hospital, DEM and DEMT anonymity and confidentiality are maintained with data only reported in aggregate by jurisdiction (state/territory and country) and by hospital peer group, where appropriate. For Australian EDs, the peer group description from the AIHW's MyHospitals data (Australian Institute of Health and Welfare, 2018-2019) was used for the peer groups: Major, Large metropolitan, Medium metropolitan, Large regional, Medium regional, Small regional, Private, and Specialist. For the purpose of reporting the EDs classified in the Medium regional Small regional hospital peer groups were collapsed into one hospital peer group (Small/ medium regional).

For New Zealand hospital peer groups, EDs were classified as 'Metropolitan' if they were located in either Auckland, Christchurch or Wellington, with all other EDs located outside of these cities classified as 'Regional'. One specialist children's hospital in New Zealand participated in the Census, and in order to maintain the hospital's anonymity their data has been incorporated into the Metropolitan peer group where appropriate.

4. Results

This section presents the findings from the 2020 Annual Site Census and includes the profile of participating EDs, and the findings relating to ED activity, staffing, and rostering. Data relating to treatment spaces, services and EM networks in the ED will be reported separately.

4.1 Profile of Participating EDs

Of the 150 EDs that were asked to complete the Census, all but one were completed. Table 1 displays the breakdown of responding EDs by region in Australia and New Zealand, and further breakdown by peer group within each region.

Table 1 Distribution of participating EDs, by region and hospital peer group.

	n	Region (%)	Total (Country) (%)	
Australia	130		87.2%	
New South Wales	42		32.3%	(28.2%)
Major	11	26.2%		
Large metropolitan	10	23.8%		
Medium metropolitan	6	14.3%		
Large regional	9	21.4%		
Medium regional	2	4.8%		
Small regional	1	2.4%		
Private	1	2.4%		
Specialist	2	4.8%		
Victoria	31		23.8%	(20.8%)
Major	6	19.4%		
Large metropolitan	7	22.6%		
Medium metropolitan	5	16.1%		
Large regional	5	16.1%		
Medium regional	1	3.2%		
Private	6	19.4%		
Specialist	1	3.2%		
Queensland	29		22.3%	(19.5%)
Major	6	20.7%		
Large metropolitan	6	20.7%		
Medium metropolitan	3	10.3%		
Large regional	6	20.7%		
Medium regional	3	10.3%		
Private	4	13.8%		
Specialist	1	3.4%		
Western Australia	12		9.2%	(8.1%)
Major	3	25.0%		
Large metropolitan	4	33.3%		
Medium metropolitan	1	8.3%		
Medium regional	2	16.7%		
Private	1	8.3%		
Specialist	1	8.3%		
South Australia	8		6.2%	(5.4%)
Major	2	25.0%		
Large metropolitan	3	37.5%		
Medium metropolitan	1	12.5%		
Private	1	12.5%		
Specialist	1	12.5%		
Tasmania	3		2.3%	(2.0%)
Major	1	33.3%		
Large regional	2	66.7%		
Northern Territory	3		2.3%	(2.0%)
Major	1	33.3%		
Large regional	1	33.3%		
Small regional	1	33.3%		
Australian Capital Territory	2		1.5%	(1.3%)
Major	1	50.0%		
Large metropolitan	1	50.0%		
New Zealand	19		12.8%	
Metropolitan	6	31.6%		
Regional	12	63.2%		
Specialist	1	5.3%		
Total	149		100.0%	

4.2 ED Activity

This section contains ED activity and performance data for the period 1 July 2019 to 30 June 2020, presented by region and hospital peer group. Table 2 displays the average number of attendances in Australia and New Zealand, with a breakdown by region for Australian EDs. The table also includes the average percentage of paediatric attendances; geriatric attendances; admissions and transfers for the same period. This is the first year that geriatric attendances have been captured in ACEMs Annual Site Census and this is a result of work ACEM is undertaking in advocacy and policy for older persons, such as ACEMs response to the Royal Commission into Aged Care Quality and Safety (ACEM, 2019).

Three Australian EDs and one New Zealand ED saw greater than 100,000 attendances during this period, comparable with the 2019 Census. Australian EDs averaged 53,767 attendances for the period, a decrease of over 1,100 from the 2019 Census (54,907), equating to a 2.1% decrease. New Zealand ED attendances decreased from 59,274 (in 2019) to 50,954 attendances (in 2020), equivalent to a 14.0% decrease. The decrease in average annual presentations in 2019-20 is presumed to be a result of COVID-19 and associated restrictions during 2020 (Australian Institute of Health and Welfare, 2021) (Allen M., 2021).

One Australian ED did not provide admission data; four Australian and four New Zealand EDs did not provide transfer data; three Australian and one New Zealand ED did not provide paediatric attendance data; and five Australian and one New Zealand ED did not provide geriatric attendance data. Four additional Australian EDs did not provide useable paediatric data, with their data excluded from analysis.

Table 2 Average total number of attendances, and the average percentage of paediatric and geriatric attendances, admissions and transfers for the period 1 July 2019 to 30 June 2020, by region.

	Total attendance			Admissions	Transfers	Paediatric attendance	Geriatric attendance
Region	mean	minimum	maximum	%	%	%	%
Australia	53767	10505	120862	26.1%	2.2%	19.6%	24.5%
NSW	51302	18052	91745	28.7%	1.9%	19.9%	24.9%
VIC	51484	11931	104027	29.4%	2.8%	18.6%	25.4%
QLD	58084	10505	120862	19.8%	1.5%	18.8%	23.1%
WA	60527	20755	105911	26.4%	2.6%	22.3%	25.9%
SA	53242	13866	86008	23.1%	3.6%	20.8%	29.1%
TAS	43575	25991	61819	26.7%	0.7%	17.5%	25.0%
ACT	70548	53713	87382	26.2%	1.5%	20.9%	19.8%
NT	43499	30088	58823	20.7%	4.5%	21.3%	10.7%
New Zealand	50945	16914	106722	31.3%	1.5%	19.9%	25.9%
Total	53407	10505	120862	26.7%	2.1%	19.7%	24.7%

A total of 126 EDs in Australia and 17 EDs in New Zealand provided ambulance arrival data and 125 Australian and 17 New Zealand EDs provided attendance data by triage category, using the Australasian Triage Scale (ATS). The average percentage of ambulance arrivals, and attendances by triage category for the period 1 July 2019 to 30 June 2020 are presented in Table 3, by region. Importantly, a third of all presentations to accredited EDs in Queensland and South Australia arrived by ambulance.

Table 3 Average percentage of ambulance arrivals and patient attendances by triage category (ATS) for the period 1 July 2019 to 30 June 2020, by region.

Region	Ambulance arrivals %	ATS 1 attendances %	ATS 2 attendances %	ATS 3 attendances %	ATS 4 attendances %	ATS 5 attendances %
Australia	28.1%	0.8%	14.1%	39.3%	38.4%	7.4%
NSW	24.8%	0.8%	13.8%	36.8%	39.2%	9.3%
VIC	26.9%	0.5%	13.0%	39.2%	39.0%	8.1%
QLD	33.6%	0.8%	15.2%	43.5%	34.2%	6.3%
WA	28.0%	0.8%	14.5%	35.9%	44.4%	4.3%
SA	34.0%	1.4%	15.3%	42.7%	35.2%	5.1%
TAS	32.2%	0.7%	11.4%	37.6%	42.2%	7.7%
ACT	21.1%	0.7%	12.2%	45.7%	35.4%	6.0%
NT	16.2%	0.8%	17.2%	35.5%	42.8%	3.7%
New Zealand	23.6%	0.9%	13.9%	46.0%	34.3%	4.8%
Total	27.5%	0.8%	14.1%	40.1%	37.9%	7.1%

Notes: ATS = Australasian Triage Scale. Twenty-three EDs in Australia and two EDs in New Zealand did not provide ambulance arrival data and 24 Australian and two New Zealand EDs did not provide attendance data by Australasian Triage Scale (ATS).

Eleven EDs reported that they were on ambulance bypass between 1 July 2019 and 30 June 2020 and these EDs were located in New Zealand, New South Wales, Queensland, South Australia, Victoria and Western Australia. The mean number of hours on ambulance bypass across these EDs over the 12-month period was 706 (ranged from 4 to 3,502 hours). This is a dramatic increase from the 2019 Census when an average of 273 hours on bypass was reported by 14 accredited EDs in Australia (ranged from 5 to 1,510 hours).

One New Zealand and 90 Australian EDs reported that they had at least once instance where ambulances had waited more than 30 minutes to complete handover of a patient to the ED between 1 July 2019 and 30 June 2020 (average 3,284 instances, ranging from 5 to 20,079 instances). This is an increase from the 2019 Census where 83 Australian EDs reported an average of 3,136 instances (ranging from 8 to 20,196 instances).

EDs were asked to provide data on patients who had an ED length of stay (LOS) greater than 8, 12 and 24 hours, for the period 1 July 2019 to 30 June 2020. A total of 119, 118, and 104 EDs in Australia and 18, 18, and 15 EDs in New Zealand respectively provided data on LOS's greater than 8, 12 and 24 hours during this period. This data is presented in Figure 1, by region, with Tasmania having the greatest percentage of patients with ED LOS's of >8, 12 and 24 hours, two years in a row. For both Australia and New Zealand there was a slight increase in the percentage of patients with an ED LOS of > 8 hours, while a slight decrease was observed in the percentage of patients with an ED LOS of > 24 hours between the 2018-19 and 2019-20 financial years.

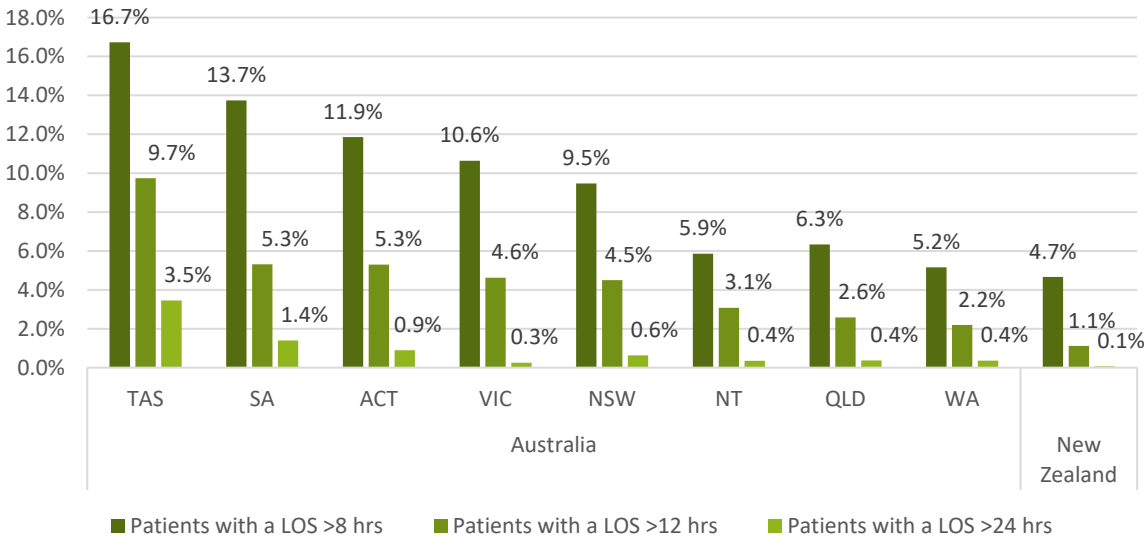

Figure 1 Percentage of total attendances with a LOS >8, >12, and >24 hours for the period 1 July 2019 to 30 June 2020, by region.

Notes: LOS = Length of Stay.

A total of 113 EDs in Australia and 17 in New Zealand provided Short Stay Unit (SSU) (or equivalent) data and 113 and 18 respectively in Australia and New Zealand provided LOS data on patient stays in the SSU (or equivalent) of more than 24 hours. For the purpose of reporting, Intensive Care Unit (ICU), Critical Care Unit (CCU) and High Dependency Unit (HDU) admissions have been combined, with 116 EDs in Australia and 18 in New Zealand providing this admission data. The average percentage of SSU and combined ICU, CCU, and HDU admissions for the period 1 July 2019 to 30 June 2020 are presented by region in Table 4 along with patients with a SSU LOS of more than 24 hours. Victoria and Queensland had the greatest percentage of patients admitted to the SSU, while Tasmania and New Zealand had the greatest percentage of patients spending greater than 24 hours in their SSUs, this is consistent with the 2019 Census.

Table 4 Average percentage of SSU admissions, SSU LOS >24 hours and combined ICU, CCU, and HDU admissions for the period 1 July 2019 to 30 June 2020, by region.

Region	SSU admissions %	Patients with a LOS in SSU >24 hours %	ICU, CCU and HDU admissions %
Australia	13.5%	0.5%	1.9%
NSW	9.8%	0.6%	2.1%
VIC	17.3%	0.6%	2.1%
QLD	17.1%	0.5%	1.5%
WA	9.3%	0.5%	1.4%
SA	12.8%	0.4%	2.5%
TAS	8.2%	0.8%	0.8%
ACT	14.8%	0.4%	1.6%
NT	10.3%	0.2%	1.8%
New Zealand	11.0%	0.7%	1.9%
Total	13.2%	0.6%	1.9%

Note: LOS = Length of Stay.

Table 5 displays the average total number of attendances, the average percentage of paediatric and geriatric attendances, as well as admissions and transfers by hospital peer group. Consistent with the 2018 and 2019 Census findings:

- Metropolitan EDs had higher average ED total attendances than regionally located EDs;
- In Australia, Regional EDs had a higher average percentage of paediatric attendances than metropolitan located EDs, whereas in New Zealand Metropolitan EDs had a higher average percentage of paediatric attendances than regionally located EDs; and
- Private EDs had the highest average percentage of admissions.

New Zealand Regional EDs had higher average geriatric ED attendances than New Zealand Metropolitan EDs. However, Australian metropolitan EDs had higher average geriatric attendances than regionally located EDs in Australia.

Table 5 Average total number of attendances, and the average percentage of paediatric and geriatric attendances, admissions and transfers for the period 1 July 2019 to 30 June 2020, by hospital peer group.

	Total attendance			Admissions	Transfers	Paediatric attendance	Geriatric attendance
Hospital peer group	mean	minimum	maximum	%	%	%	%
Australia							
Major	77669	41215	120862	33.0%	1.0%	13.0%	24.3%
Large metropolitan	65183	37971	104027	24.4%	2.5%	16.8%	24.5%
Medium metropolitan	43532	21755	67425	18.6%	4.4%	19.9%	22.3%
Large regional	43418	24166	74646	24.5%	1.2%	20.3%	23.6%
Small/medium regional	29314	20706	39668	14.2%	4.0%	21.3%	18.3%
Private	17378	10505	28941	38.7%	3.0%	9.5%	39.7%
Specialist	57846	33234	86763	18.8%	0.3%	80.1%	0.0%
New Zealand							
Metropolitan	67146	29797	106722	34.6%	4.2%	25.6%	24.8%
Regional	41494	16914	84695	29.4%	0.5%	16.3%	26.5%

Notes: One Australian ED did not provide admission data; four Australian and four New Zealand EDs did not provide transfer data; three Australian and one New Zealand ED did not provide paediatric attendance data; five Australian and one New Zealand ED did not provide geriatric attendance data; and four Australian EDs paediatric data was not usable and has been exclude from analysis.

The average percentage of ambulance arrivals and attendances by triage category are presented in Table 6, by peer group. Specialist EDs had the smallest percentage of their patients arriving by ambulance compared with EDs in other peer groups, while Regional Australian EDs had a higher percentage of ATS 5 attendances compared to EDs in other peer groups in Australia. These findings are consistent with those of the 2019 Census.

Table 6 Average percentage of ambulance arrivals and patient attendances by triage category (ATS) for the period 1 July 2019 to 30 June 2020, by hospital peer group.

Hospital peer group	Ambulance arrivals %	ATS 1 attendances %	ATS 2 attendances %	ATS 3 attendances %	ATS 4 attendances %	ATS 5 attendances %
Australia						
Major	33.4%	1.4%	16.9%	42.0%	32.6%	7.0%
Large metropolitan	30.9%	0.8%	16.0%	41.7%	34.5%	6.9%
Medium metropolitan	27.9%	0.4%	14.4%	39.6%	39.8%	5.7%
Large regional	27.6%	0.6%	12.8%	38.5%	39.3%	8.6%
Small/medium regional	16.7%	0.4%	11.6%	33.6%	45.0%	9.3%
Private	24.7%	0.2%	8.8%	37.7%	44.2%	8.6%
Specialist	12.3%	0.7%	8.4%	27.5%	57.5%	5.9%
New Zealand						
Metropolitan	24.0%	1.2%	12.8%	45.6%	35.3%	5.1%
Regional	23.4%	0.7%	14.5%	46.3%	33.8%	4.7%

Notes: ATS = Australasian Triage Scale. Twenty-three EDs in Australia and two EDs in New Zealand did not provide ambulance arrival data and 24 Australian and two New Zealand EDs did not provide attendance data by Australasian Triage Scale (ATS).

Overall, Regional EDs in New Zealand had more patients with ED length of stays of greater than 8 and 12 hours compared with Metropolitan EDs in New Zealand (Table 7). While attendances were down on the previous financial year the number of patients with a LOS greater than 8 and 12 hours increased for Metropolitan EDs in New Zealand, from 3.5% and 0.8% to 4.2% and 1.0% respectively.

Table 7 Patients in New Zealand with an ED LOS of >8, >12 and >24 hours compared to total attendances for the period 1 July 2019 to 30 June 2020, by hospital peer group.

Hospital peer group	Total attendance mean	Patients with a LOS >8 hrs %	Patients with a LOS >12 hrs %	Patients with a LOS >24 hrs %
New Zealand				
Metropolitan	67146	4.2%	1.0%	0.1%
Regional	41494	5.0%	1.2%	0.1%

Note: LOS = Length of Stay.

Interestingly, Private EDs saw a significant increase in the percentage of patients with ED LOS's of greater than 8, 12 and 24 hours, than in previous years. In Australia, the highest percentage of patients with an ED LOS of more than 24 hours was seen in Large regional EDs compared with EDs in other peer groups, and Major and Large regional EDs had the highest percentage of patients with a LOS of more than 8 hours (Figure 2). This is consistent with findings from the 2019 Census.

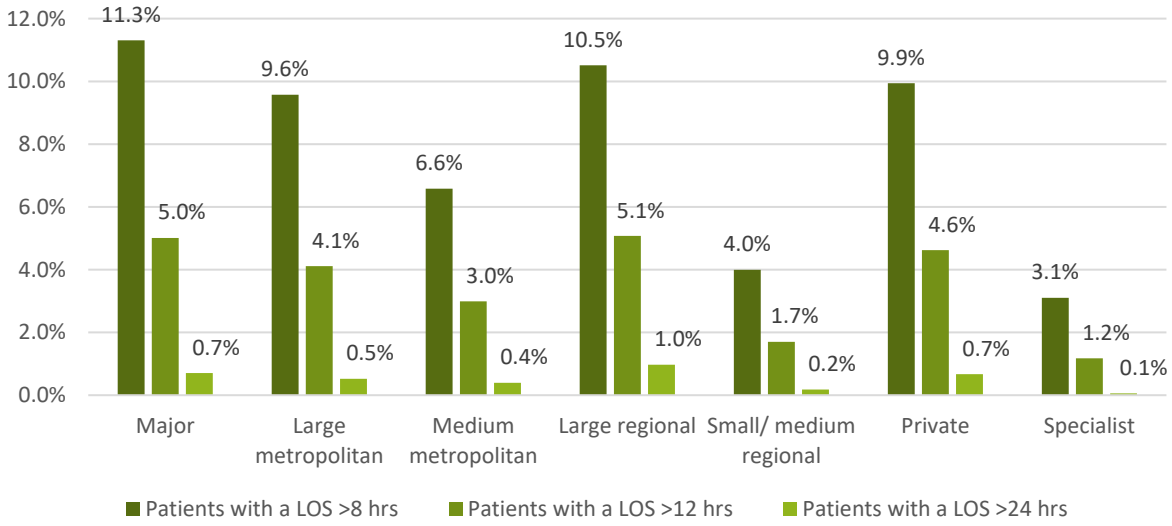

Figure 2 Percentage of total attendances in Australia with an ED LOS of >8, >12 and >24 hours for the period 1 July 2019 to 30 June 2020, by hospital peer group.

Note: LOS = Length of Stay.

The average percentage of SSU and combined ICU, CCU, and HDU admissions for the period 1 July 2019 to 30 June 2020 are presented by region in Table 8 along with patients with a SSU LOS of more than 24 hours. Consistent with the findings from the 2019 Census, a greater percentage of patients:

- attending Major and metropolitan EDs across Australia and New Zealand were admitted to SSUs,
- were admitted to ICU, CCU and HDUs in Private EDs.

Table 8 Average percentage of SSU, and combined ICU, CCU, and HDU admissions for the period 1 July 2019 to 30 June 2020, by hospital peer group.

Hospital peer group	SSU admissions %	LOS in SSU >24 hours %	ICU, CCU and HDU admissions %
Australia			
Major	14.6%	0.6%	1.9%
Large metropolitan	16.0%	0.6%	1.4%
Medium metropolitan	17.7%	0.6%	1.1%
Large regional	11.8%	0.6%	1.8%
Small/medium regional	6.8%	0.2%	2.0%
Private	3.7%	0.2%	4.9%
Specialist	7.9%	0.2%	0.2%
New Zealand			
Metropolitan	14.5%	1.2%	1.0%
Regional	8.6%	0.4%	2.3%

Note: LOS = Length of Stay.

4.3 Aboriginal and/or Torres Strait Islander and Māori Presentations

The total number of patients attending ACEM's accredited EDs who identified as being Aboriginal and/or Torres Strait Islander Peoples for Australian EDs, or Māori for New Zealand EDs, was provided for the period 1 July 2019 to 30 June 2020. DEMs and DEMTs also had the opportunity to comment on the quality and reliability of the Aboriginal and/or Torres Strait Islander or Māori presentation data collected by their ED.

Nine Australian EDs and one New Zealand ED did not provide data regarding Aboriginal and/or Torres Strait Islander and Māori presentations. Of the Australian EDs that provided data, Aboriginal and/or Torres Strait Islander patient attendances represented 6.6% of ED attendances to accredited Australian EDs, ranging from 1.9% of ED attendances in Victoria to 40.8% in the Northern Territory (Table 9). Overall, more than two-thirds of Australian EDs reported that the quality (76.9%) and reliability (77.7%) of their Aboriginal and/or Torres Strait Islander data was good, higher than what was reported in the 2019 Census (71.5% and 70.7% respectively). However, 66.7% of Tasmanian EDs reported the quality and reliability of this data was fair.

DEMs and DEMTs were given the option to comment on indigenous presentations or the quality or reliability of the indigenous status data captured by their ED. Thirty-three provided relevant comments which included that their patient's indigenous status was self-reported (10) or that patients were asked on presentation/ registration/ triage (11). Comments also reflected concerns regarding accuracy in the data captured (18), such as:

- some patients prefer to not provide this data and/ or may not be able to be asked (too unwell) (13);
- issues with data management system(s) (5);
- human error (5);
- data collection was not standardised (2).

Table 9 Percentage of Aboriginal and/or Torres Strait Islander patient attendances; and the quality and reliability of the data collected in Australian EDs for the period 1 July 2019 to 30 June 2020, by region.

	Attendances		Quality of data				Reliability of data			
				Poor	Fair	Good		Poor	Fair	Good
Region	n	%	n	%	%	%	n	%	%	%
NSW	41	6.6%	42	4.8%	19.0%	76.2%	42	4.8%	11.9%	83.3%
VIC	25	1.9%	31	9.7%	9.7%	80.6%	31	9.7%	12.9%	77.4%
QLD	26	8.3%	29	13.8%	6.9%	79.3%	29	17.2%	6.9%	75.9%
WA	11	5.5%	12	16.7%	16.7%	66.7%	12	16.7%	16.7%	66.7%
SA	7	4.4%	8	12.5%	0.0%	87.5%	8	12.5%	0.0%	87.5%
TAS	3	6.2%	3	0.0%	66.7%	33.3%	3	0.0%	66.7%	33.3%
ACT	2	4.0%	2	0.0%	0.0%	100.0%	2	0.0%	0.0%	100.0%
NT	3	40.8%	3	0.0%	33.3%	66.7%	3	0.0%	33.3%	66.7%
Total	118	6.6%	130	9.2%	13.8%	76.9%	130	10.0%	12.3%	77.7%

Table 10 presents the percentage of Aboriginal and/or Torres Strait Islander patient attendances; and the quality and reliability of the data collected by hospital peer group. Consistent with the findings from the 2019 Census, the proportion of Aboriginal and/or Torres Strait Islander attendances were higher in EDs located in regional areas of Australia. The proportion of ED patients attending private EDs in Australia and identifying as Aboriginal and/or Torres Strait Islander was very low (0.1%) and importantly over half (53.8%) of Private EDs reported that the quality and reliability of their patient data with respect to capturing the Indigenous status of patients was poor.

Table 10 Percentage of Aboriginal and/or Torres Strait Islander patient attendances; and the quality and reliability of the data collected in Australian EDs for the period 1 July 2019 to 30 June 2020, by hospital peer group.

	Attendances		Quality of data				Reliability of data			
				Poor	Fair	Good		Poor	Fair	Good
Hospital peer group	n	%	n	%	%	%	n	%	%	%
Major	31	5.3%	31	0.0%	12.9%	87.1%	31	0.0%	12.9%	87.1%
Large metropolitan	29	4.3%	31	6.5%	19.4%	74.2%	31	9.7%	16.1%	74.2%
Medium metropolitan	16	3.7%	16	6.3%	18.8%	75.0%	16	6.3%	18.8%	75.0%
Large regional	22	13.1%	23	4.3%	8.7%	87.0%	23	4.3%	4.3%	91.3%
Small/medium regional	9	12.8%	10	10.0%	0.0%	90.0%	10	10.0%	0.0%	90.0%
Private	5	0.1%	13	53.8%	15.4%	30.8%	13	53.8%	15.4%	30.8%
Specialist	6	3.5%	6	0.0%	16.7%	83.3%	6	0.0%	16.7%	83.3%

Table 11 presents the percentage of Māori patient attendances and the quality and reliability of the data collected by hospital peer group for New Zealand EDs. All of the accredited EDs in New Zealand that provided patient attendance data provided the number of Māori patient attendances, which represented 20.5% of the total ED attendances. Overall, 84.2% of New Zealand EDs reported that both the quality and reliability of their Māori attendance data was good.

Table 11 Percentage of Māori patient attendances; and the quality and reliability of the data collected in New Zealand EDs for the period 1 July 2019 to 30 June 2020, by hospital peer group.

	Attendances		Quality of data				Reliability of data			
				Poor	Fair	Good		Poor	Fair	Good
Hospital peer group	n	%	n	%	%	%	n	%	%	%
Metropolitan	7	13.9%	7	14.3%	14.3%	71.4%	7	14.3%	14.3%	71.4%
Regional	11	24.7%	12	8.3%	0.0%	91.7%	12	8.3%	0.0%	91.7%
Total	18	20.5%	19	10.5%	5.3%	84.2%	19	10.5%	5.3%	84.2%

A total of 130 Australian based EDs and 19 New Zealand based EDs responded to the question asking whether their ED has an Indigenous Health Liaison Officer (IHLO) or equivalent (Table 12). With a higher percentage of Australian EDs (8.5%) reporting that they did not have access to an IHLO when compared with New Zealand EDs (0.0%).

Table 12 DEM and DEMT response rates to whether their ED had an IHLO (or equivalent), by region.

Region	n	Employed by your ED %	Employed by your hospital & available in your ED %	Employed off-site but available in your ED %	My ED does not have access to an IHLO %
Australia	130	1.5%	72.3%	19.2%	8.5%
NSW	42	4.8%	69.0%	23.8%	7.1%
VIC	31	0.0%	64.5%	25.8%	9.7%
QLD	29	0.0%	82.8%	10.3%	6.9%
WA	12	0.0%	83.3%	8.3%	8.3%
SA	8	0.0%	50.0%	37.5%	12.5%
TAS	3	0.0%	66.7%	0.0%	33.3%
ACT	2	0.0%	100.0%	0.0%	0.0%
NT	3	0.0%	100.0%	0.0%	0.0%
New Zealand	19	0.0%	100.0%	0.0%	0.0%
Total	149	1.3%	75.8%	16.8%	7.4%

Note: Responses were not mutually exclusive, with respondents able to select more than one option.

Table 13 presents the response rates to whether EDs had an IHLO by hospital peer group. Private EDs in Australia had no on-site IHLO and were much less likely than the EDs in other peer groups to report having access to an IHLO, which is consistent with the findings from the 2019 Census.

Table 13 DEM and DEMT response rates to whether their ED had an IHLO (or equivalent), by hospital peer group.

Hospital peer group	n	Employed by your ED %	Employed by your hospital & available in your ED %	Employed off-site but available in your ED %	My ED does not have access to an IHLO %
Australia					
Major	31	3.2%	90.3%	6.5%	0.0%
Large metropolitan	31	0.0%	83.9%	19.4%	0.0%
Medium metropolitan	16	0.0%	37.5%	62.5%	0.0%
Large regional	23	4.3%	87.0%	8.7%	4.3%
Small/medium regional	10	0.0%	80.0%	0.0%	20.0%
Private	13	0.0%	0.0%	38.5%	61.5%
Specialist	6	0.0%	100.0%	0.0%	0.0%
New Zealand					
Metropolitan	7	0.0%	100.0%	0.0%	0.0%
Regional	12	0.0%	100.0%	0.0%	0.0%

Note: Responses were not mutually exclusive, with respondents able to select more than one option.

4.4 ED Staffing

ED staffing data (at the time of reporting) including the FTE of specific ED roles and roster data are provided in this section with comparisons by region and hospital peer group.

4.4.1 *ED Staffing Profiles*

The average FTE for various ED staff roles are displayed by region for medical doctors, nursing staff and administrative staff, in Table 14, Table 15 and Table 16 respectively. Please note that any interpretation of this regional analysis should consider the significant variation in the number of EDs present in each jurisdiction and the variation of each peer group present in each jurisdiction (refer to Table 1).

The overall average FTE of EM Specialists (13.6) and Other specialists (2.6) was relatively stable compared with the findings from the 2019 Census (13.9 FTE and 2.7 FTE respectively). However, there was a noticeable decrease in the average FTE of FACEM Advanced trainees (8.7), FACEM Provisional trainees (5.6) and medical officers (9.5) in comparison to the findings from the 2019 Census (9.4 FTE, 4.2 FTE and 11.3 FTE respectively). Of note was the increase in the average FTE of non-ACEM registrars (5.7 to 6.7) reported in the 2019 Census compared with what was reported in the 2020 Census.

Table 14 Average FTE for ED staff (range provided in brackets), for medical doctor staff roles in Australian and New Zealand EDs, by region.

Region	EM Specialists mean (range)	Other Specialists mean (range)	FACEM AT mean (range)	FACEM PT mean (range)	Medical Officers mean (range)	Non-ACEM Reg. mean (range)	JMO/ Interns mean (range)
Australia	13.7 (3 - 34)	2.4 (0 - 9)	9.0 (1 - 43)	5.8 (1 - 29)	9.9 (<1 - 36)	6.7 (1 - 31)	15.7 (1 - 42)
NSW	10.9 (3 - 23)	2.3 (<1 - 8)	9.4 (1 - 43)	6.4 (1 - 29)	9.3 (1 - 29)	6.2 (1 - 31)	12.3 (1 - 39)
VIC	14.6 (3 - 34)	1.7 (<1 - 7)	9.0 (1 - 26)	4.9 (1 - 9)	6.8 (<1 - 23)	6.9 (1 - 20)	16.9 (1 - 41)
QLD	15.8 (4 - 31)	3.0 (1 - 8)	10.0 (1 - 40)	6.0 (1 - 12)	12.4 (1 - 34)	6.0 (1 - 19)	16.3 (2 - 42)
WA	15.1 (4 - 26)	2.9 (1 - 5)	8.1 (1 - 27)	6.1 (2 - 10)	10.2 (2 - 36)	9.5 (3 - 18)	20.2 (1 - 38)
SA	15.7 (5 - 29)	2.6 (1 - 9)	6.3 (1 - 16)	5.3 (2 - 13)	13.2 (1 - 36)	5.1 (1 - 17)	16.5 (1 - 34)
TAS	11.0 (5 - 20)	2.2 (1 - 3)	5.0 (1 - 11)	4.8 (2 - 9)	11.3	9.5 (6 - 13)	18.3 (9 - 26)
ACT	17.4 (13 - 22)	1.6 (1 - 2)	8.4 (4 - 13)	6.0 (5 - 7)	14.8 (14 - 16)	9.1 (3 - 15)	21.0 (18 - 24)
NT	11.0 (7 - 17)	0.3	8.4 (5 - 13)	6.3 (4 - 9)	8.0 (7 - 9)	3.3 (3 - 4)	19.5 (13 - 30)
New Zealand	13.0 (4 - 23)	3.5 (1 - 19)	6.8 (1 - 24)	4.1 (1 - 9)	5.6 (1 - 11)	6.5 (1 - 13)	9.0 (4 - 18)
Total	13.6 (3 - 34)	2.6 (<1 - 19)	8.7 (1 - 43)	5.6 (1 - 29)	9.5 (<1 - 36)	6.7 (1 - 31)	15.0 (1 - 42)

Notes: Where no range is provided, n ≤ 1 or there is no variation from the mean. EM Specialist = FACEM and Paediatric EM Specialists (PEMs). AT = Advanced trainee. PT = Provisional trainee. Medical Officers include CMOs; SMOs; SRMOs; SHOs and MOs (NZ EDs).

With respect to nursing staff FTE, of note was the increase in the average FTE of mental health nurses (4.0 to 5.2) reported in the 2019 Census compared to the 2020 Census.

Table 15 Average FTE for ED staff (range provided in brackets), for nursing staff roles in Australian and New Zealand EDs, by region.

Region	Nurse Practitioners mean (range)	Nurse Unit Managers mean (range)	Mental Health Nurses mean (range)	Nurse Educators mean (range)	Total Nursing mean (range)
Australia	4.0 (1 - 26)	2.2 (1 - 16)	5.4 (<1 - 20)	1.7 (<1 - 7)	93.1 (2 - 330)
NSW	2.9 (1 - 19)	3.8 (1 - 12)	3.8 (1 - 16)	1.8 (1 - 4)	78.0 (18 - 150)
VIC	5.6 (1 - 26)	1.9 (1 - 16)	8.1 (<1 - 20)	2.3 (<1 - 7)	98.0 (2 - 304)
QLD	4.9 (1 - 10)	1.1 (1 - 3)	6.6 (2 - 14)	1.2 (1 - 2)	103.7 (16 - 330)
WA	2.5 (1 - 6)	1.2 (1 - 2)	3.9 (3 - 6)	1.8 (<1 - 4)	92.0 (30 - 150)
SA	4.9 (4 - 7)	1.7 (1 - 4)	5.7 (3 - 8)	1.2 (<1 - 2)	108.0 (29 - 205)
TAS	4.5 (3 - 6)	0.9 (1 - 1)	5.9	1.5 (1 - 3)	102.3 (49 - 156)
ACT	2.0 (1 - 3)	1.0	2.0	1.7 (1 - 2)	119.0 (75 - 163)
NT	0.0	1.0	3.5 (2 - 5)	2.3 (1 - 4)	86.0 (61 - 114)
New Zealand	4.0 (1 - 12)	1.6 (1 - 7)	2.6 (1 - 6)	1.2 (<1 - 4)	73.4 (17 - 216)
Total	4.0 (1 - 26)	2.1 (1 - 16)	5.2 (<1 - 20)	1.7 (<1 - 7)	90.6 (2 - 330)

Notes: Where no range is provided, n ≤ 1 or there is no variation from the mean. Nurse Practitioners includes Clinical Nurse Consultant/ Specialist).

A total of 139 EDs reported having ED ward receptionist(s) or clerk(s) employed and 136 EDs reported having EM Specialist secretarial or ED administrative assistant(s). For the EDs reporting employing EM Specialist secretarial or ED administrative assistant(s), the average FTE was small and varied little across regions at an average head count of 1-3 (91.4%), although three EDs reported having more than 20 FTE of EM Specialist secretarial or ED administrative assistant(s).

Table 16 Average FTE of ED ward receptionist or clerk(s) and EM Specialist secretarial or ED administrative assistant(s) (range in brackets), by region.

	ED ward receptionist/ clerk			EM Specialist secretarial/ ED administrative assistant		
Region	n	mean	(range)	n	mean	(range)
Australia	121	13	(1 - 35)	119	2	(<1 - 30)
NSW	39	10	(1 - 24)	39	1	(1 - 5)
VIC	29	13	(1 - 32)	27	3	(<1 - 30)
QLD	27	12	(1 - 32)	29	3	(1 - 29)
WA	11	18	(9 - 35)	10	2	(1 - 5)
SA	8	15	(4 - 33)	7	2	(1 - 3)
TAS	2	13	(5 - 21)	3	1	(1 - 2)
ACT	2	15	(8 - 22)	2	3	(1 - 5)
NT	3	9	(6 - 13)	2	2	(1 - 2)
New Zealand	18	15	(4 - 37)	17	1	(1 - 3)
Total	139	13	(1 - 37)	136	2	(<1 - 30)

Table 17 presents the average FTE for each ED medical doctor role, Table 18 presents the FTE for nursing staff and Table 19 presents the FTE for ED administrative staff, by hospital peer group. Similar to the findings from the 2019 Census, Major hospital EDs had a higher average FTE for EM Specialists (FACEMs and Paediatric EM Specialists; 22.0 FTE in 2019 and 21.4 FTE in 2020), FACEM advanced (17.9 FTE in 2019 and 18.3 FTE in 2020) and provisional trainees (7.5 FTE in 2019 and 9.1 FTE in 2020) and medical officers (15.6 FTE in 2019 and 16.0 FTE in 2020), compared with EDs in other peer groups in Australia or New Zealand.

Table 17 Average FTE for ED staff (range provided in brackets), for medical officer staff roles in Australian and New Zealand EDs, by hospital peer group.

Hospital peer group	**EM Specialists** mean (range)	**Other Specialists** mean (range)	**FACEM AT** mean (range)	**FACEM PT** mean (range)	**Medical Officers** mean (range)	**Non-ACEM Reg.** mean (range)	**JMO/ Interns** mean (range)
Australia							
Major	20.9 (8 - 34)	1.6 (<1 - 3)	18.3 (6 - 43)	9.1 (2 - 29)	16.0 (<1 - 36)	5.2 (1 - 17)	21.3 (4 - 37)
Large metropolitan	15.3 (7 - 26)	2.0 (0 - 5)	8.0 (1 - 40)	5.6 (1 - 10)	10.6 (<1 - 26)	8.1 (1 - 31)	18.4 (2 - 41)
Medium metropolitan	10.2 (3 - 25)	2.8 (1 - 9)	4.1 (1 - 12)	4.0 (1 - 9)	11.2 (1 - 25)	6.1 (1 - 15)	9.0 (1 - 22)
Large regional	10.1 (3 - 23)	3.2 (0 - 8)	4.9 (1 - 13)	3.7 (1 - 9)	5.7 (1 - 16)	6.2 (1 - 19)	13.3 (3 - 42)
Small/medium regional	6.4 (4 - 10)	2.6 (1 - 6)	1.9 (1 - 5)	4.0 (1 - 6)	7.8 (2 - 15)	5.0 (2 - 11)	7.6 (1 - 15)
Private	6.6 (4 - 13)	2.7 (1 - 5)	2.4 (1 - 6)	n.d.	4.6 (1 - 20)	5.5 (1 - 10)	n.d.
Specialist	14.1 (8 - 23)	1.1	13.0 (4 - 32)	1.3 (1 - 2)	7.6 (5 - 14)	11.3 (8 - 20)	12.9 (1 - 26)
New Zealand							
Metropolitan	17.1 (8 - 23)	6.2 (1 - 19)	10.7 (3 - 24)	5.2 (1 - 9)	6.2 (3 - 8)	5.6 (3 - 10)	11.8 (4 - 18)
Regional	10.7 (4 - 20)	2.2 (1 - 5)	3.8 (1 - 11)	3.3 (1 - 6)	5.3 (1 - 11)	7.2 (1 - 13)	7.8 (5 - 16)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. n.d. = no data. EM Specialist = FACEM and Paediatric EM Specialists (PEMs). AT = Advanced trainee. PT = Provisional trainee. Medical Officers include CMOs; SMOs; SRMOs; SHOs and MOs (NZ EDs).

Private EDs in Australia and Regional EDs in New Zealand had the lowest mental health nursing FTE compared to all other hospital peer groups.

Table 18 Average FTE for ED staff (range provided in brackets), for nursing staff roles in Australian and New Zealand EDs, by hospital peer group.

Hospital peer group	Nurse Practitioners mean (range)	Nurse Unit Mangers mean (range)	MH Nurses mean (range)	Nurse Educators mean (range)	Total Nursing mean (range)
Australia					
Major	5.7 (1 - 26)	3.0 (1 - 9)	6.7 (1 - 19)	2.4 (1 - 5)	142.0 (67 - 330)
Large metropolitan	3.2 (1 - 6)	2.4 (1 - 12)	7.2 (2 - 20)	2.4 (1 - 7)	113.0 (48 - 304)
Medium metropolitan	2.5 (1 - 6)	1.6 (1 - 7)	2.5 (1 - 6)	1.2 (1 - 2)	74.4 (17 - 138)
Large regional	4.2 (1 - 16)	2.4 (1 - 16)	4.0 (1 - 14)	1.1 (1 - 2)	75.5 (30 - 168)
Small/medium regional	2.2 (1 - 5)	1.3 (1 - 4)	2.5 (2 - 3)	1.0 (<1 - 2)	40.8 (18 - 61)
Private	2.6 (1 - 9)	1.3 (1 - 5)	0.2	0.8 (<1 - 1)	26.6 (2 - 50)
Specialist	4.3 (1 - 8)	1.7 (1 - 3)	4.7 (1 - 8)	2.1 (1 - 3)	87.0 (53 - 106)
New Zealand					
Metropolitan	6.9 (4 - 12)	1.0	3.3 (1 - 6)	1.9 (1 - 4)	114.5 (46 - 216)
Regional	2.3 (1 - 5)	2.0 (1 - 7)	0.6	0.8 (<1 - 1)	49.5 (17 - 103)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Nurse Practitioners includes Clinical Nurse Consultant/ Specialist).

Private EDs in Australia reported the greatest range of EM Specialist secretarial or ED administrative assistant(s).

Table 19 Average FTE of ED ward receptionist or clerk(s) and EM Specialist secretarial or ED administrative assistant(s) (range in brackets), by hospital peer group.

	ED ward receptionist/ clerk			EM Specialist secretarial/ ED administrative assistant		
Hospital peer group	n	mean	(range)	n	mean	(range)
Australia						
Major	27	21	(2 - 35)	31	3	(1 - 29)
Large metropolitan	29	13	(1 - 26)	30	1	(1 - 4)
Medium metropolitan	15	12	(3 - 25)	15	1	(1 - 4)
Large regional	22	9	(1 - 21)	19	2	(1 - 22)
Small/medium regional	9	5	(1 - 9)	6	1	(1 - 2)
Private	13	7	(1 - 13)	12	4	(<1 - 30)
Specialist	6	6	(8 - 21)	6	6	(1 - 5)
New Zealand						
Metropolitan	7	25	(11 - 37)	7	1	(1 - 3)
Regional	11	10	(4 - 30)	10	1	(1 - 2)

4.4.2 *EM Specialist to FACEM trainee ratios and ED staff to patient ED attendance ratios*

Table 20 displays the ratio of EM Specialist FTE to FACEM trainee FTE, and the ratios of various ED staff to ED attendance by region; Table 21 shows this data by hospital peer group. For the purposes of this report, senior medical staff includes EM Specialists, other specialists, FACEM trainees, non-ACEM registrars and medical officers (MOs) excluding junior medical officers (JMOs) and interns. All medical staff consists of all senior staff, JMOs and interns.

The Northern Territory again had the lowest EM Specialist to trainee ratio at one EM Specialist FTE to 1.4 trainee FTE, consistent with the findings from the 2019 Census. South Australia had the highest EM Specialist to trainee ratio at one EM Specialist FTE to 0.6 trainee FTE.

Looking at the number of ED attendances per EM specialist FTE, New South Wales had a higher number of attendances per EM Specialist FTE compared with other regions at one EM Specialist FTE to 5,563 attendances. In contrast, South Australia had the most EM Specialists (FTE) per attendance at a ratio of one to 3,860 attendances. Australia had a lower EM Specialist to FTE per attendance at a ratio of one FTE to 4,590 attendances compared with New Zealand at one to 3,956.

ED attendance per trainee FTE was very high in New South Wales at a ratio of one trainee FTE per 10,807 attendances. New Zealand had a lower number of attendances per trainee FTE (one trainee FTE to 3,956 attendances) compared with Australia (one trainee FTE to 8,206 attendances). The reverse was seen for senior medical staff, all medical staff and nursing staff, with New Zealand having more attendances per staff member than Australia.

Table 20 Ratio of EM Specialist FTE to trainee FTE, and the ratios of various ED staffing FTE to ED attendance, by region.

Region	EM Specialists: Trainee	EM Specialists: Attendance	Trainee: Attendance	Senior Medical Staff: Attendance	All Medical Staff: Attendance	Nursing Staff: Attendance
Australia	1 : 0.9	1 : 4590	1 : 8206	1 : 1522	1 : 1116	1 : 689
NSW	1 : 1.1	1 : 5563	1 : 10807	1 : 1645	1 : 1261	1 : 723
VIC	1 : 0.8	1 : 4218	1 : 5553	1 : 1584	1 : 1052	1 : 778
QLD	1 : 0.9	1 : 4153	1 : 8637	1 : 1438	1 : 1129	1 : 648
WA	1 : 0.8	1 : 4117	1 : 6939	1 : 1374	1 : 1016	1 : 681
SA	1 : 0.6	1 : 3860	1 : 8263	1 : 1382	1 : 962	1 : 502
TAS	1 : 0.8	1 : 4490	1 : 6375	1 : 1401	1 : 877	1 : 448
ACT	1 : 0.8	1 : 4112	1 : 5196	1 : 1239	1 : 899	1 : 626
NT	1 : 1.4	1 : 4145	1 : 3029	1 : 1249	1 : 803	1 : 504
New Zealand	1 : 0.7	1 : 3956	1 : 7572	1 : 1649	1 : 1322	1 : 800
Total	1 : 0.9	1 : 4505	1 : 8129	1 : 1538	1 : 1142	1 : 703

Note: EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). Trainee = FTE of ACEM advanced and provisional trainees.

Consistent with what was reported in the 2019 Census, seven EDs had a ratio of one EM Specialist FTE to greater than 10,000 annual attendances, however four of these EDs had FACEM Visiting Medical Officers (VMOs) on their rosters, averaging 17 FACEM VMOs between them, which are not included in this ratio. Refer to section 4.4.6 on Visiting Medical Officer staffing of responding EDs.

The ratio of EM Specialist FTE to FACEM trainee FTE, and the ratios of ED staff to ED attendance, by hospital peer group are displayed in Table 21. Private hospitals in Australia had the lowest ratio of FACEM trainees to EM Specialists compared to other peer groups. Interestingly, they also had a much higher number of attendances per nursing staff. Small/medium regional EDs in Australia reported a much higher number of attendances per trainee FTE than all other hospital peer groups. Regional hospitals in New Zealand reported higher levels of patient attendances to EM Specialist, Trainee, senior medical staff, all medical staff and nursing staff FTE compared to New Zealand Metropolitan hospitals.

Table 21 Ratio of EM Specialist FTE to trainee FTE, and the ratios of various ED staffing FTE to ED attendance, by hospital peer group.

Hospital peer group	EM Specialists: Trainee	EM Specialists: Attendance	Trainee: Attendance	Senior Medical Staff: Attendance	All Medical Staff: Attendance	Nursing Staff: Attendance
Australia						
Major	1 : 1.4	1 : 3862	1 : 3225	1 : 1258	1 : 935	1 : 580
Large metropolitan	1 : 0.9	1 : 4583	1 : 6297	1 : 1497	1 : 1050	1 : 642
Medium metropolitan	1 : 0.7	1 : 5755	1 : 13788	1 : 1505	1 : 1121	1 : 708
Large regional	1 : 0.7	1 : 5547	1 : 8087	1 : 1921	1 : 1122	1 : 625
Small/medium regional	1 : 0.7	1 : 5086	1 : 20667	1 : 1862	1 : 1529	1 : 784
Private	1 : 0.4	1 : 3020	1 : 12403	1 : 1362	1 : 1362	1 : 1086
Specialist	1 : 0.9	1 : 4219	1 : 5955	1 : 1317	1 : 1129	1 : 662
New Zealand						
Metropolitan	1 : 0.9	1 : 3884	1 : 5013	1 : 1479	1 : 1294	1 : 657
Regional	1 : 0.6	1 : 3998	1 : 9364	1 : 1748	1 : 1338	1 : 884

Note: EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). Trainee = FTE of ACEM advanced and provisional trainees.

4.4.3 *EM Specialist FTE to EM Specialist head count*

This section presents the ratios of FACEM FTE to FACEM head count by region (Table 22) and hospital peer group (Table 23). There were on average 3.4 FACEMs working to cover 1.0 FTE in Australia and 2.4 FACEMs covering 1.0 FTE in New Zealand. In other words, more FACEMs were working to cover one FTE in Australian EDs than in New Zealand EDs. For most regions the number of FACEMs working to cover one FTE has almost doubled or more than doubled compared to the number reported in the 2019 Census.

Table 22 FACEM FTE to head count, by region.

Region	2019 Census FACEM FTE: Head Count	2020 Census FACEM FTE: Head Count
Australia	1 : 1.7	1 : 3.4
NSW	1 : 1.6	1 : 3.2
VIC	1 : 1.8	1 : 4.3
QLD	1 : 1.8	1 : 3.0
WA	1 : 1.6	1 : 3.2
SA	1 : 2.2	1 : 4.3
TAS	1 : 1.3	1 : 2.9
ACT	1 : 1.5	1 : 3.1
NT	1 : 2.3	1 : 2.5
New Zealand	1 : 1.3	1 : 2.4
Total	1 : 1.7	1 : 3.3

Both Private and Medium metropolitan EDs in Australia had on average, higher numbers of FACEMs (head count) to cover 1.0 FTE, compared to other peer groups at 5.9 and 4.5 respectively working to cover 1.0 FTE. Regional New Zealand EDs had on average lower numbers of FACEMs (head count) to cover 1.0 FTE, with 2.3 head count per 1.0 FTE, compared with all other hospital peer groups.

Table 23 FACEM FTE to head count, by hospital peer group.

Hospital peer group	2019 Census FACEM FTE: Head Count	2020 Census FACEM FTE: Head Count
Australia		
Major	1 : 1.5	1 : 3.0
Large metropolitan	1 : 1.6	1 : 2.9
Medium metropolitan	1 : 2.3	1 : 4.5
Large regional	1 : 1.4	1 : 2.8
Small/medium regional	1 : 1.7	1 : 3.2
Private	1 : 2.2	1 : 5.9
Specialist	1 : 2.0	n.d.
New Zealand		
Metropolitan	1 : 1.7	1 : 2.5
Regional	1 : 1.1	1 : 2.3

Note: n.d. = No data.

4.4.4 *Other Specialists – EMC and EMD Staffing*

This section reports on the number of graduates of ACEM's Emergency Medicine Certificate (EMC) and Emergency Medicine Diploma (EMD) that are employed by ACEM accredited EDs. Table 24 provides the average number of EMC and EMD graduates employed and the percentage of EDs employing them by region and Table 25 by hospital peer group. A total of 89 EDs reported having EMC and/or

EMD graduates employed in 2020, an increase of 11 EDs from the 2019 Census (78 EDs), with more EDs employing EMC graduates than EMD graduates. For the EDs reporting employing EMC or EMD graduates, the average number employed however was small and varied little across regions at an average of 1-6 for EMC graduates and 1-3 for EMD graduates.

Table 24 Average number of EMC and EMD graduates (range in brackets), by region.

	EM Certificants			EM Diplomates			EM Certificants and/ or EM Diplomates	
Region	n	mean	(range)	n	mean	(range)	n	%
Australia	64	2	(1 - 6)	32	1	(1 - 3)	79	60.8%
NSW	22	2	(1 - 5)	5	1	(1 - 2)	24	57.1%
VIC	12	2	(1 - 6)	12	1	(1 - 3)	20	64.5%
QLD	10	2	(1 - 5)	4	1	(1 - 2)	12	41.4%
WA	6	3	(2 - 5)	4	2	(1 - 2)	7	58.3%
SA	7	3	(1 - 5)	4	1	(1 - 2)	8	100.0%
TAS	2	4	(3 - 4)	1	1		3	100.0%
ACT	2	3	(2 - 4)	2	1		20	64.5%
NT	3	1	(1 - 2)	0			3	100.0%
New Zealand	8	2	(1 - 2)	3	1		10	52.6%
Total	72	2	(1 - 6)	35	1	(1 - 3)	89	59.7%

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean.

Specialist (16.7%) and Major (38.7%) EDs in Australia and Metropolitan (28.6%) EDs in New Zealand were the least likely to employ EMC or EMD graduates. Most of the Private (84.6%) EDs and Small/ medium regional (84.6%) EDs in Australia employed EMC or EMD graduates.

Table 25 Average number of EMC and EMD graduates (range in brackets), by hospital peer group.

	EM Certificants			EM Diplomates			EM Certificants and/ or EM Diplomates	
Hospital peer group	n	mean	(range)	n	mean	(range)	n	%
Australia								
Major	10	3	(1 - 6)	5	1	(1 - 2)	12	38.7%
Large metropolitan	18	2	(1 - 4)	7	1	(1 - 2)	19	61.3%
Medium metropolitan	9	2	(1 - 5)	5	1		12	75.0%
Large regional	14	2	(1 - 4)	4	1	(1 - 2)	16	69.6%
Small/medium regional	7	3	(1 - 4)	3	2	(1 - 2)	8	80.0%
Private	6	3	(1 - 5)	7	1	(1 - 3)	11	84.6%
Specialist	0			1	1		1	16.7%
New Zealand								
Metropolitan	2	2		0			2	28.6%
Regional	6	1	(1 - 2)	3	1		8	66.7%

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean.

4.4.5 *FACEM and FACEM trainee Vacancy Rates*

A total of 48 (36.9%) EDs in Australia and two (10.5%) in New Zealand reported FACEM vacancies, while 70 (53.8%) EDs in Australia and four (21.1%) in New Zealand reported FACEM trainee vacancies (Table 26). A higher proportion of Australian EDs had unfilled FACEM FTE for six or more months (28.5%) and unfilled trainee FTE (39.2%) than New Zealand EDs (5.3% and 10.5% respectively).

Table 26 Percentage of EDs who reported having unfilled FACEM and trainee FTE, the percentage of those EDs with unfilled FTE for 6+ months; and the total unfilled FTE, by region.

	Unfilled FTE: FACEMs					Unfilled FTE: Trainees				
Region	Unfilled %	Unfilled for 6+ months %	Trying to fill %	Total unfilled FTE	Total unfilled for 6+ months FTE	Unfilled %	Unfilled for 6+ months %	Trying to fill %	Total unfilled FTE	Total unfilled for 6+ months FTE
Australia	36.9%	28.5%	89.4%	112.1	93.8	53.8%	39.2%	88.1%	359.5	289.6
NSW	47.6%	40.5%	90.0%	65.9	60.5	73.8%	59.5%	93.3%	169.9	151.5
VIC	25.8%	19.4%	85.7%	12.3	8.8	51.6%	35.5%	80.0%	58.9	33.4
QLD	17.2%	13.8%	80.0%	6.8	3.5	37.9%	24.1%	81.8%	55.3	43.8
WA	41.7%	16.7%	80.0%	7.2	4.1	41.7%	16.7%	75.0%	13.5	7.0
SA	37.5%	25.0%	100.0%	3.3	2.0	50.0%	37.5%	100.0%	40.3	32.3
TAS	100.0%	100.0%	100.0%	8.3	8.3	33.3%	33.3%	100.0%	2.0	2.0
ACT	100.0%	100.0%	100.0%	4.7	4.7	100.0%	100.0%	100.0%	19.7	19.7
NT	66.7%	33.3%	100.0%	3.6	2.0	0.0%	n/a	n/a	n/a	n/a
New Zealand	10.5%	5.3%	100.0%	17.8	5.0	21.1%	10.5%	50.0%	21.5	20.0
Total	33.6%	25.5%	89.8%	129.9	98.8	49.7%	35.6%	85.9%	381.0	309.6

The percentage of EDs with FACEM and trainee vacancies, reported as unfilled FTE, are displayed in Table 27 by hospital peer group. Large regional and Large metropolitan EDs in Australia were more likely to report having unfilled FACEM FTE, compared to EDs in other peer groups, totalling 85 vacant FACEM FTE among them. Metropolitan EDs in New Zealand and Specialist EDs in Australia were the least likely to report having FACEM and FACEM trainee vacancies at the time of reporting. In addition, 54.5% (n=11) of regional EDs in New Zealand reported FACEM vacancies in 2019, compared with only 16.7% (n=2) in 2020.

Table 27 Percentage of EDs who reported having unfilled FACEM and trainee FTE; the percentage of those EDs with unfilled FTE for 6+ months, and the total unfilled FTE; by hospital peer group.

	Unfilled FTE: FACEMs					Unfilled FTE: Trainees				
Hospital peer group	Unfilled %	Unfilled for 6+ months %	Trying to fill %	Total unfilled FTE	Total unfilled for 6+ months FTE	Unfilled %	Unfilled for 6+ months %	Trying to fill %	Total unfilled FTE	Total unfilled for 6+ months FTE
Australia										
Major	29.0%	16.1%	77.8%	9.2	6.4	41.9%	22.6%	92.3%	80.1	55.4
Large metropolitan	45.2%	35.5%	92.9%	35.9	27.0	74.2%	54.8%	90.5%	125.4	106.9
Medium metropolitan	31.3%	31.3%	80.0%	10.6	10.6	56.3%	50.0%	77.8%	35.0	27.8
Large regional	56.5%	56.5%	100.0%	49.1	48.1	60.9%	56.5%	100.0%	88.0	81.0
Small/medium regional	30.0%	20.0%	100.0%	3.4	0.9	40.0%	30.0%	75.0%	20.5	14.5
Private	30.8%	7.7%	66.7%	4.0	1.0	38.5%	15.4%	50.0%	6.5	2.0
Specialist	0.0%	0.0%	0.0%	0.0	0.0	33.3%	16.7%	100.0%	4.0	2.0
New Zealand										
Metropolitan	0.0%	0.0%	0.0%	0.0	0.0	0.0%	0.0%	0.0%	0.0	0.0
Regional	16.7%	8.3%	100.0%	17.8	5.0	33.3%	16.7%	50.0%	21.5	20.0

Table 28 displays the average FACEM and trainee unfilled FTE by region. New Zealand had the highest average unfilled FACEM FTE (8.9 FTE) across the 2 EDs reporting vacancies, whereas South Australia reported the highest average unfilled FACEM trainee FTE (10.1) across the 4 EDs reporting vacancies.

Table 28 Average unfilled FTE and unfilled FTE for 6+ months of FACEMs and trainees (range in brackets), by region.

	Unfilled FTE: FACEMs				Unfilled FTE: Trainees			
	Unfilled		Unfilled for 6+ months		Unfilled		Unfilled for 6+ months	
Region	n	mean (range)	n	mean (range)	n	mean (range)	n	mean (range)
Australia	48	2.3 (0.2 - 14.0)	37	2.5 (0.2 - 14.0)	70	5.1 (0.5 - 25.3)	51	5.7 (0.5 - 25.3)
NSW	20	3.3 (0.3 - 14.0)	17	3.6 (0.4 - 14.0)	31	5.5 (1.0 - 23.0)	25	6.1 (1.0 - 23.0)
VIC	8	1.5 (0.2 - 3.6)	6	1.5 (0.2 - 3.6)	16	3.7 (0.5 - 13.0)	11	3.0 (0.5 - 9.8)
QLD	5	1.4 (0.5 - 3.5)	4	0.9 (0.5 - 1.7)	11	5.0 (1.0 - 20.0)	7	6.3 (1.0 - 19.0)
WA	5	1.4 (0.3 - 3.6)	2	2.1 (0.5 - 3.6)	5	2.7 (1.5 - 5.0)	2	3.5 (2.0 - 5.0)
SA	3	1.1 (0.8 - 1.5)	2	1.0	4	10.1 (1.0 - 25.3)	3	10.8 (1.0 - 25.3)
TAS	3	3 (1.0 - 5.3)	3	3 (1.0 - 5.3)	1	2.0	1	2.0
ACT	2	2.4 (0.7 - 4.0)	2	2.4 (0.7 - 4.0)	2	9.8 (6.0 - 13.7)	2	9.8 (6.0 - 13.7)
NT	2	1.8 (1.6 - 2.0)	1	2.0	0		0	
New Zealand	2	8.9 (1.8 - 16.0)	1	5.0	4	5.4 (0.5 - 11.0)	2	10.0 (9.0 - 11.0)
Total	50	2.6 (0.2 - 16.0)	38	2.6 (0.2 - 14.0)	74	5.1 (0.5 - 25.3)	53	5.8 (0.5 - 25.3)

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean.

The average unfilled FTE and average unfilled FTE for six or more months for FACEMs and trainees, for the EDs who reported unfilled FTE, is presented in Table 29 by hospital peer group. Regional EDs in New Zealand reported the highest average unfilled FACEM FTE (8.9 FTE), while Large regional EDs in Australia reported the highest average unfilled FACEM trainee FTE (6.3 FTE) across EDs reporting vacancies. No metropolitan based New Zealand EDs reported having FACEM or trainee vacancies.

Table 29 Average unfilled FTE and unfilled FTE for 6+ months of FACEMs and trainees (range in brackets), by hospital peer group.

	Unfilled FTE: FACEMs				Unfilled FTE: Trainees			
	Unfilled		Unfilled for 6+ months		Unfilled		Unfilled for 6+ months	
Hospital peer group	n	mean (range)	n	mean (range)	n	mean (range)	n	mean (range)
Australia								
Major	9	1.0 (0.3 - 1.9)	5	1.3 (0.7 - 1.9)	13	6.2 (1.4 - 23.0)	7	7.9 (1.0 - 23.0)
Large metropolitan	14	2.6 (0.2 - 13.0)	11	2.5 (0.2 - 13.0)	23	5.5 (0.5 - 25.3)	17	6.3 (0.5 - 25.3)
Medium metropolitan	5	2.1 (0.9 - 3.6)	5	2.1 (0.9 - 3.6)	9	3.9 (0.5 - 8.0)	8	3.5 (0.5 - 8.0)
Large regional	13	3.8 (1.0 - 14.0)	13	3.7 (1.0 - 14.0)	14	6.3 (2.0 - 20.0)	13	6.2 (2.0 - 19.0)
Small/medium regional	3	1.1 (0.4 - 2.5)	2	0.4 (0.4 - 0.5)	4	5.1 (1.5 - 12.0)	3	4.8 (1.0 - 12.0)
Private	4	1.0 (0.5 - 1.5)	1	1.0	5	1.3 (1.0 - 2.0)	2	1.0
Specialist	0		0		2	2	1	2
New Zealand								
Metropolitan	0		0		0		0	
Regional	2	8.9 (1.8 - 16.0)	1	5.0	4	5.4 (0.5 - 11.0)	2	10.0 (9.0 - 11.0)

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean.

4.4.6 *Visiting Medical Officer Staffing*

This section reports on the percentage of EDs who employed FACEM Visiting Medical Officers (VMOs), the average number of VMOs employed and the average total hours they worked per week, by region (Table 30) and by hospital peer group (Table 31).

DEMs and DEMTs were asked to select the types of employment contracts VMOs were employed on within their ED. Please note that DEMs and DEMTs were able to select more than one option for this question, with 20 out of 62 sites selecting multiple options. Seven EDs indicated that VMOs were employed on another type of employment contract which were via a contractor (4), casual contracts (1), minimum hours contract (1) and VMO contract across sites (1).

A total of 60 EDs in Australia and two EDs in New Zealand reported employing VMOs to staff their ED. Care must be taken when comparing regions as there is large variation between Australian states, with South Australian, Tasmanian and Northern Territory EDs not employing FACEM VMOs and all EDs in the Australian Capital Territory and 83.3% of EDs in New South Wales employing VMOs. Victorian EDs employed the highest average number of VMOs (17) in Australia, who worked a total of 178.8 hours per week. Overall, zero hours contracts were the most common type of contract VMOs were employed on.

Table 30 Percentage of EDs who employed VMOs; average number of VMOs employed and average total hours VMOs worked per week (range in brackets); and proportion of EDs utilising various VMO contract types, by region.

	EDs with VMOs employed		Number of VMOs employed	Hours per week VMOs work	Employed on a fixed hours contract*	Employed on zero hours contract*	Other type of employment contract*
Region	n	%	mean (range)	mean (range)	%	%	%
Australia	60	46.2%	11 (1 - 33)	97.0 (2.0 - 551.0)	50.0%	75.0%	11.7%
NSW	35	83.3%	11 (1 - 31)	69.3 (4.0 - 250.0)	37.1%	85.7%	2.9%
VIC	14	45.2%	17 (2 - 33)	178.8 (2.0 - 551.0)	92.9%	78.6%	14.3%
QLD	6	20.7%	6 (1 - 15)	96.8 (10.0 - 360.0)	16.7%	33.3%	66.7%
WA	3	25.0%	3 (1 - 6)	45.0 (30.0 - 70.0)	100.0%	0.0%	0.0%
ACT	2	100.0%	6 (1 - 10)	80.0	0.0%	100.0%	0.0%
New Zealand	2	10.5%	1	19.0 (8.0 - 30.0)	100.0%	0.0%	0.0%
Total	62	41.6%	11 (1 - 33)	94.4 (2.0 - 551.0)	51.6%	72.6%	11.3%

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Three of the 62 EDs that reported employing VMOs did not provide the FTE of the VMOs employed and one did not provide the hours that VMOs worked. *Option not exclusive, DEMs and DEMTs can select multiple options.

When assessed by peer group, the largest mean headcount of VMO's was reported by Australian Major hospital EDs (17). No Metropolitan EDs in New Zealand reported employing any VMOs.

Table 31 Percentage of EDs that employed VMOs; average number of VMOs employed and average total hours VMOs worked per week (range in brackets); and proportion of EDs utilising various VMO contract types, by hospital peer group.

	EDs with VMOs employed		Number of VMOs employed	Hours per week VMOs work	Employed on a fixed hours contract*	Employed on zero hours contract*	Other type of employment contract*
Hospital peer group	n	%	mean (range)	mean (range)	%	%	%
Australia							
Major	15	48.4%	17 (1 - 33)	141.6 (10.0 - 551.0)	46.7%	80.0%	0.0%
Large metropolitan	17	54.8%	11 (1 - 31)	87.9 (2.0 - 408.0)	41.2%	94.1%	0.0%
Medium metropolitan	9	56.3%	10 (2 - 29)	76.0 (4.0 - 160.0)	55.6%	77.8%	11.1%
Large regional	6	26.1%	8 (1 - 22)	73.1 (30.0 - 150.0)	50.0%	83.3%	16.7%
Small/medium regional	4	40.0%	11 (5 - 21)	94.8 (30.0 - 209.0)	100.0%	25.0%	0.0%
Private	8	61.5%	9 (1 - 15)	86.9 (16.0 - 360.0)	37.5%	50.0%	62.5%
Specialist	1	16.7%	5	40.0	100.0%	0.0%	0.0%
New Zealand							
Regional	2	16.7%	1	19.0 (8.0 - 30.0)	100.0%	0.0%	0.0%

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Three of the 62 EDs that reported employing VMOs did not provide the FTE of the VMOs employed and one did not provide the hours that VMOs worked. *Option not exclusive, DEMs and DEMTs can select multiple options.

4.4.7 *Locum FACEM Staffing*

This section reports on the percentage of EDs who employed FACEM locums, the average number of locums employed and the average total hours they worked per week, by region (Table 32), and by hospital peer group (Table 33).

Over a third of Australian (38%) and almost a third of New Zealand (32%) EDs employed FACEM locums. Of the EDs that employed FACEM locums, EDs in Western Australia employed on average the highest number of FACEM locums (6) across 12 EDs, who worked on average 55.8 hours per week.

Table 32 Percentage of EDs that employed locums, average number of locums employed and average total hours locums worked per week (range in brackets), by region.

Region	EDs with locum FACEMs employed n	EDs with locum FACEMs employed %	Number of locum FACEMs employed mean (range)	Hours per week locum FACEMs work mean (range)
Australia	49	37.7%	3.5 (1 - 20)	37.4 (2 - 200)
NSW	14	33.3%	2.0 (1 - 6)	31.4 (2 - 150)
VIC	13	41.9%	4.1 (1 - 10)	21.8 (2 - 80)
QLD	5	17.2%	2.2 (1 - 5)	52.0 (20 - 120)
WA	12	100.0%	6.0 (1 - 20)	55.8 (4 - 200)
SA	1	12.5%	1.0	9.0
TAS	2	66.7%	1.0	18.8 (10 - 28)
ACT	0	0.0%	0.0	0.0
NT	2	66.7%	1.0	43.8 (40 - 48)
New Zealand	6	31.6%	4.0 (2 - 9)	23.0 (4 - 51)
Total	55	36.9%	3.6 (1 - 20)	35.9 (2 - 200)

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Three of the 55 EDs that reported employing VMOs did not provide the head count of the locums employed, two reported that the number of locums employed were too variable to report and three did not provide the hours that locums worked.

Metropolitan EDs in New Zealand and Large regional EDs in Australia were more likely than EDs in other peer groups to employ locum FACEMs, at 57%. Private hospitals in Australia and Regional hospitals in New Zealand however, had the highest mean number of locums employed (8.2 and 9.0 respectively).

Table 33 Percentage of EDs that employed locums, average number of locums employed and average total hours locums worked per week (range in brackets), by hospital peer group.

Hospital peer group	EDs with locum FACEMs employed n	EDs with locum FACEMs employed %	Number of locum FACEMs employed mean (range)	Hours per week locum FACEMs work mean (range)
Australia				
Major	9	29.0%	3.8 (1 - 8)	96.3 (20 - 200)
Large metropolitan	12	38.7%	2.9 (1 - 6)	17.5 (8 - 52)
Medium metropolitan	4	25.0%	4.3 (3 - 6)	40.3 (16 - 75)
Large regional	13	56.5%	1.9 (1 - 6)	37.3 (8 - 150)
Small/medium regional	5	50.0%	3.6 (1 - 13)	40.0 (30 - 50)
Private	5	38.5%	8.2 (1 - 20)	12.2 (2 - 32)
Specialist	1	16.7%	2.0	4.0
New Zealand				
Metropolitan	4	57.1%	2.8 (2 - 4)	14.7 (4 - 30)
Regional	2	16.7%	9.0	35.5 (20 - 51)

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Three of the 55 EDs that reported employing VMOs did not provide the head count of the locums employed, two reported that the number of locums employed were too variable to report and three did not provide the hours that locums worked.

4.5 How EDs compare to ACEM's minimum recommended FACEM staffing model, Guideline 23

A total of 141 accredited adult and mixed EDs provided presentation data and are included in the sample for comparison against ACEM's Guideline on constructing and maintaining a senior emergency medicine workforce (G23) (ACEM, 2015), on the minimum recommended FACEM staffing model.

The percentage of EDs that met the minimum recommended FACEM staffing model, at the time of reporting, is presented in Table 34 by region and Table 35 by hospital peer group. Overall, 27.8% of New Zealand and 31.7% of Australian EDs were meeting the minimum recommended FACEM staffing outlined in G23. While the percentage of New Zealand EDs meeting the minimum recommended FACEM staffing has fluctuated since 2016, increasing from 7% in 2016 to 24% in 2018, then decreasing again in 2019 to 7% before increasing again in 2020 to 28%, the number of Australian EDs meeting the minimum recommended FACEM staffing has consistently increased from 17% in 2016, 23% in 2018, 27% in 2019 and 32% in 2020.

Table 34 Number and percentage of adult and mixed EDs meeting ACEM's G23 minimum FACEM staffing model for the period 1 July 2019-30 June 2020, by region.

Region	n	%
Australia	39	31.7%
NSW	8	20.0%
VIC	14	46.7%
QLD	9	33.3%
WA	3	27.3%
SA	3	42.9%
TAS	1	33.3%
ACT	0	0.0%
NT	1	33.3%
New Zealand	5	27.8%
Total	44	31.2%

Almost two thirds (60.0%) of Australian Major hospital EDs were meeting ACEM's minimum FACEM staffing model at the time of reporting. No Small/medium regional hospitals in Australia were meeting the minimum FACEM staffing requirements and only 17% of Regional EDs in New Zealand were.

Table 35 Number and percentage of adult and mixed EDs meeting ACEM's G23 minimum FACEM staffing model for the period 1 July 2019-30 June 2020, by hospital peer group.

Hospital peer group	n	%
Australia		
Major	18	60.0%
Large metropolitan	9	29.0%
Medium metropolitan	4	25.0%
Large regional	5	21.7%
Small/medium regional	0	0.0%
Private	3	23.1%
New Zealand		
Metropolitan	3	50.0%
Regional	2	16.7%

4.6 ED Staff Rosters

Weekday and weekend rosters for EM Specialists (FACEM and PEM Specialists) were provided by 132 EDs and FACEM trainee rosters were provided by 107 EDs. A number of EDs provided roster data that was excluded from analysis where appropriate, for example:

- Eleven EDs (9 EDs in Australia and two EDs in New Zealand) reported being unable to separate EM Specialists from other senior staff on the roster.
- Twenty-five EDs (17 EDs in Australia and eight EDs in New Zealand) reported being unable to separate FACEM trainees from other staff on the roster.
- For six EDs, FACEM roster data could not be reported on due to various reasons, including using an alternative roster.
- For 16 EDs, FACEM trainee roster data could not be reported on, with eleven of these EDs having low or no trainee numbers.

Rosters are presented in the following section for day and evening on-floor shifts, as well as for night on-call shifts for EM Specialists (FACEMs and PEM Specialists) and both night on-floor and on-call shifts for FACEM trainees.

Table 36 displays the average weekday and weekend rosters for EM Specialists (FTE) by region and a breakdown by hospital peer group is available in Table 37. Four EDs had EM Specialists rostered on-floor during the night shift on weekdays, averaging 1.0 FTE (range: 1.0-1.0), including two EDs classified as regional. Nine EDs had EM Specialists rostered on-floor during the night shift on weekends, averaging 1.4 FTE (range: 1.0-3.0), including two Major Australian EDs and three New Zealand Metropolitan EDs.

Table 36 Average weekday and weekend rosters for EM Specialist FTE (range in brackets), by region.

	Weekday roster			Weekend roster		
	Day (OF) mean (range)	**Eve (OF)** mean (range)	**Night (OC)** mean (range)	**Day (OF)** mean (range)	**Eve (OF)** mean (range)	**Night (OC)** mean (range)
Region						
Australia	2.9 (0.0 - 7.0)	2.5 (0.0 - 6.0)	1.1 (0.0 - 3.0)	2.5 (0.0 - 7.0)	2.3 (0.0 - 6.0)	1.1 (0.0 - 11.0)
NSW	2.3 (1.0 - 4.0)	2.1 (0.0 - 4.0)	1.1 (0.0 - 2.0)	2.1 (0.0 - 4.0)	1.9 (0.0 - 4.0)	1.0 (0.0 - 2.0)
VIC	3.0 (0.0 - 6.0)	2.7 (0.0 - 6.0)	1.0 (0.0 - 2.0)	2.4 (0.0 - 6.0)	2.6 (0.0 - 6.0)	1.0 (0.0 - 2.0)
QLD	3.5 (1.0 - 7.0)	2.6 (1.0 - 5.0)	1.2 (1.0 - 3.0)	3.1 (1.0 - 7.0)	2.6 (1.0 - 5.0)	1.2 (1.0 - 2.0)
WA	3.8 (1.0 - 7.0)	2.7 (1.0 - 5.0)	1.0	2.9 (1.0 - 5.0)	2.5 (1.0 - 5.0)	2.0 (1.0 - 11.0)
SA	3.2 (2.0 - 6.0)	3.2 (2.0 - 6.0)	1.2 (1.0 - 2.0)	3.0 (2.0 - 5.0)	3.0 (2.0 - 5.0)	1.2 (1.0 - 2.0)
TAS	2.3 (1.0 - 4.0)	2.0 (1.0 - 3.0)	1.0	2.0 (1.0 - 3.0)	2.0 (1.0 - 3.0)	1.0
ACT	3.5 (2.0 - 5.0)	3.0 (2.0 - 4.0)	1.0	2.5 (2.0 - 3.0)	2.5 (2.0 - 3.0)	1.0
NT	2.3 (1.0 - 4.0)	1.7 (1.0 - 3.0)	0.7 (0.0 - 1.0)	2.0 (1.0 - 3.0)	1.7 (1.0 - 3.0)	0.7 (0.0 - 1.0)
New Zealand	2.2 (1.0 - 4.0)	2.1 (1.0 - 4.0)	0.9 (0.0 - 1.0)	1.9 (1.0 - 4.0)	2.0 (0.0 - 4.0)	0.9 (0.0 - 1.0)
Total	2.8 (0.0 - 7.0)	2.4 (0.0 - 6.0)	1.1 (0.0 - 3.0)	2.4 (0.0 - 7.0)	2.3 (0.0 - 6.0)	1.1 (0.0 - 11.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). OF = On-floor. OC = On-call.

Major Australian EDs had the greatest average FTE of EM Specialists rostered on the floor during the day and evenings on weekdays and weekends compared to other hospital peer groups (Table 37).

Table 37 Average weekday and weekend rosters for EM Specialist FTE (range in brackets), by hospital peer group.

	Weekday roster			Weekend roster		
Hospital peer group	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OC) mean (range)	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OC) mean (range)
Australia						
Major	4.4 (2.0 - 7.0)	3.5 (2.0 - 6.0)	1.2 (0.0 - 2.0)	3.6 (2.0 - 7.0)	3.2 (2.0 - 6.0)	1.1 (0.0 - 2.0)
Large metropolitan	3.2 (1.0 - 5.0)	2.7 (1.0 - 5.0)	1.1 (1.0 - 3.0)	2.6 (1.0 - 5.0)	2.5 (1.0 - 5.0)	1.4 (0.0 - 11.0)
Medium metropolitan	2.1 (1.0 - 5.0)	1.6 (0.0 - 4.0)	1.0 (0.0 - 2.0)	1.9 (1.0 - 4.0)	1.6 (0.0 - 4.0)	1.0 (0.0 - 2.0)
Large regional	2.1 (1.0 - 4.0)	2.0 (1.0 - 4.0)	1.0 (0.0 - 1.0)	2.1 (1.0 - 4.0)	2.0 (1.0 - 4.0)	1.0 (0.0 - 1.0)
Small/medium regional	1.5 (1.0 - 3.0)	1.0 (0.0 - 2.0)	1.0 (0.0 - 2.0)	1.3 (0.0 - 3.0)	1.0 (0.0 - 2.0)	1.0 (0.0 - 2.0)
Private	1.4 (0.0 - 3.0)	1.6 (0.0 - 3.0)	1.0	1.1 (0.0 - 3.0)	1.6 (0.0 - 3.0)	1.0
Specialist	3.2 (2.0 - 4.0)	2.6 (2.0 - 4.0)	1.0	2.8 (2.0 - 4.0)	2.2 (1.0 - 3.0)	1.0
New Zealand						
Metropolitan	2.7 (2.0 - 4.0)	2.5 (2.0 - 4.0)	1.0	2.5 (2.0 - 4.0)	2.5 (2.0 - 4.0)	1.0
Regional	1.9 (1.0 - 3.0)	1.8 (1.0 - 3.0)	0.9 (0.0 - 1.0)	1.6 (1.0 - 3.0)	1.7 (0.0 - 3.0)	0.9 (0.0 - 1.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). OF = On-floor. OC = On-call.

The average weekday and weekend rosters for FACEM trainees (FTE), by region are displayed in Table 38. All EDs in Tasmania reported that they included non FACEM trainees in their FACEM trainee roster data and as such their data has been excluded. New South Wales and New Zealand EDs had the lowest average FACEM trainee FTE rostered on floor across day, evening and night shifts.

Table 38 Average weekday and weekend rosters for FACEM trainee FTE (range in brackets), by region.

	Weekday roster				Weekend roster			
Region	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OF) mean (range)	Night (OC) mean (range)	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OF) mean (range)	Night (OC) mean (range)
Australia	2.7 (0.0 - 12.0)	2.9 (0.0 - 12.0)	1.9 (0.0 - 6.0)	0.1 (0.0 - 1.0)	2.6 (0.0 - 12.0)	2.8 (0.0 - 12.0)	1.9 (0.0 - 6.0)	0.1 (0.0 - 1.0)
NSW	2.2 (1.0 - 7.0)	2.3 (0.0 - 7.0)	1.4 (0.0 - 4.0)	0.2 (0.0 - 1.0)	2.1 (0.0 - 7.0)	2.2 (0.0 - 7.0)	1.4 (0.0 - 4.0)	0.1 (0.0 - 1.0)
VIC	2.7 (0.0 - 12.0)	3.3 (0.0 - 12.0)	2.2 (0.0 - 6.0)	0.0 (0.0 - 0.0)	2.6 (1.0 - 12.0)	3.2 (1.0 - 12.0)	2.1 (0.0 - 6.0)	0.1 (0.0 - 1.0)
QLD	3.3 (1.0 - 9.0)	3.3 (1.0 - 8.0)	1.9 (0.0 - 4.0)	0.2 (0.0 - 1.0)	3.3 (1.0 - 8.0)	3.2 (1.0 - 7.0)	2.0 (0.0 - 4.0)	0.1 (0.0 - 1.0)
WA	2.9 (1.0 - 4.0)	3.3 (1.0 - 5.0)	2.3 (0.0 - 4.0)	0.2 (0.0 - 1.0)	2.8 (1.0 - 4.0)	3.1 (1.0 - 5.0)	2.3 (0.0 - 4.0)	0.2 (0.0 - 1.0)
SA	3.3 (1.0 - 7.0)	3.0 (0.0 - 7.0)	2.5 (0.0 - 5.0)	0.3 (0.0 - 1.0)	2.8 (1.0 - 5.0)	2.8 (0.0 - 6.0)	2.3 (0.0 - 4.0)	0.3 (0.0 - 1.0)
ACT	3.0 (2.0 - 4.0)	3.0 (2.0 - 4.0)	2.0 (1.0 - 3.0)	0.0	3.0 (2.0 - 4.0)	3.0 (2.0 - 4.0)	2.0 (1.0 - 3.0)	0.0
NT	2.7 (2.0 - 4.0)	3.0 (2.0 - 4.0)	2.0	0.0	2.7 (2.0 - 4.0)	3.0 (2.0 - 4.0)	2.0	0.0
New Zealand	1.9 (1.0 - 3.0)	2.1 (1.0 - 4.0)	1.9 (1.0 - 3.0)	0.3 (0.0 - 2.0)	1.9 (1.0 - 3.0)	2.1 (1.0 - 4.0)	1.9 (1.0 - 3.0)	0.3 (0.0 - 2.0)
Total	2.7 (0.0 - 12.0)	2.9 (0.0 - 12.0)	1.9 (0.0 - 6.0)	0.1 (0.0 - 2.0)	2.6 (0.0 - 12.0)	2.8 (0.0 - 12.0)	1.9 (0.0 - 6.0)	0.1 (0.0 - 2.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. OF = On-floor. OC = On-call.

Table 39 displays the average weekday and weekend rosters for FACEM trainees (FTE) by hospital peer group. Major and Specialist EDs in Australia had higher numbers of trainees rostered on-floor for the majority of shifts, compared to EDs in other peer groups, which is consistent with the findings from the 2019 Census. A total of 96 EDs indicated that trainees were rostered on the floor during week-nights and during weekend nights, with an average of 4.1 FTE (range: 1.0-12.0) rostered per ED during these times. This is much higher than what was reported in the 2019 Census when 99 EDs indicated that trainees were rostered on the floor during week-nights and weekend nights, with an average of 2.0 FTE (range: 1.0-4.0) rostered per ED during these times.

Table 39 Average weekday and weekend rosters for FACEM trainee FTE (range in brackets), by hospital peer group.

	Weekday roster				Weekend roster			
Hospital peer group	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OF) mean (range)	Night (OC) mean (range)	Day (OF) mean (range)	Eve (OF) mean (range)	Night (OF) mean (range)	Night (OC) mean (range)
Australia								
Major	4.3 (1.0 - 9.0)	4.6 (1.0 - 8.0)	3.3 (1.0 - 6.0)	0.1 (0.0 - 1.0)	4.1 (1.0 - 8.0)	4.5 (1.0 - 7.0)	3.2 (1.0 - 6.0)	0.1 (0.0 - 1.0)
Large metropolitan	2.5 (1.0 - 5.0)	2.7 (0.0 - 5.0)	1.8 (0.0 - 4.0)	0.2 (0.0 - 1.0)	2.5 (1.0 - 5.0)	2.4 (0.0 - 5.0)	1.7 (0.0 - 4.0)	0.2 (0.0 - 1.0)
Medium metropolitan	1.8 (1.0 - 4.0)	1.8 (0.0 - 4.0)	1.3 (0.0 - 2.0)	0.2 (0.0 - 1.0)	1.8 (1.0 - 4.0)	1.8 (0.0 - 4.0)	1.2 (0.0 - 2.0)	0.2 (0.0 - 1.0)
Large regional	2.0 (1.0 - 5.0)	2.1 (1.0 - 5.0)	1.2 (0.0 - 3.0)	0.1 (0.0 - 1.0)	1.9 (1.0 - 5.0)	2.1 (0.0 - 5.0)	1.2 (0.0 - 3.0)	0.1 (0.0 - 1.0)
Small/medium regional	1.2 (1.0 - 2.0)	1.0 (0.0 - 2.0)	0.5 (0.0 - 2.0)	0.0	1.0 (0.0 - 2.0)	1.0 (0.0 - 2.0)	0.7 (0.0 - 2.0)	0.0
Private	1.1 (0.0 - 2.0)	1.3 (0.0 - 2.0)	0.4 (0.0 - 1.0)	0.0	1.1 (1.0 - 2.0)	1.4 (1.0 - 2.0)	0.6 (0.0 - 1.0)	0.1 (0.0 - 1.0)
Specialist	4.2 (1.0 - 12.0)	5.0 (2.0 - 12.0)	2.0 (1.0 - 4.0)	0.4 (0.0 - 1.0)	4.2 (1.0 - 12.0)	5.0 (2.0 - 12.0)	2.0 (1.0 - 4.0)	0.2 (0.0 - 1.0)
New Zealand								
Metropolitan	2.0 (1.0 - 3.0)	2.4 (1.0 - 4.0)	2.0 (1.0 - 3.0)	0.0	2.0 (1.0 - 3.0)	2.4 (1.0 - 4.0)	2.0 (1.0 - 3.0)	0.0
Regional	1.5 (1.0 - 2.0)	1.5 (1.0 - 2.0)	1.5 (1.0 - 2.0)	1.0 (0.0 - 2.0)	1.5 (1.0 - 2.0)	1.5 (1.0 - 2.0)	1.5 (1.0 - 2.0)	1.0 (0.0 - 2.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. OF = On-floor. OC = On-call.

The average total weekday and weekend rosters of EM Specialists and FACEM trainees across all on-floor and on-call shifts (day, evening and night) by region are presented in Table 40. Interestingly, the majority of jurisdictions had a higher average FTE of EM Specialists and FACEM trainees rostered over the weekend than weekdays.

Table 40 Average total EM Specialist and FACEM trainee FTE across all on-floor and on-call shifts over a 24 hour period by weekday and weekend (range in brackets), by region.

	EM Specialists*		FACEM trainees	
	Weekday	**Weekend**	**Weekday**	**Weekend**
Region	mean (range)	mean (range)	mean (range)	mean (range)
Australia	6.8 (1.0 - 17.0)	7.5 (0.0 - 28.0)	6.4 (0.0 - 15.0)	7.6 (0.0 - 28.0)
NSW	5.8 (1.0 - 11.0)	6.1 (0.0 - 23.0)	5.3 (0.0 - 11.0)	6.2 (0.0 - 20.0)
VIC	7.2 (2.0 - 13.0)	7.2 (0.0 - 28.0)	6.9 (3.0 - 13.0)	7.9 (2.0 - 28.0)
QLD	7.7 (3.0 - 17.0)	9.0 (0.0 - 24.0)	7.2 (3.0 - 15.0)	8.8 (2.0 - 22.0)
WA	7.5 (3.0 - 13.0)	9.1 (2.0 - 16.0)	7.3 (3.0 - 15.0)	8.7 (2.0 - 16.0)
SA	8.4 (5.0 - 14.0)	8.4 (2.0 - 19.0)	8.8 (5.0 - 12.0)	8.5 (2.0 - 15.0)
TAS	5.3 (3.0 - 8.0)	7.7 (5.0 - 10.0)		
ACT	7.5 (5.0 - 10.0)	8.0 (5.0 - 11.0)	6.0 (5.0 - 7.0)	8.0 (5.0 - 11.0)
NT	5.0 (3.0 - 8.0)	7.7 (6.0 - 10.0)	4.7 (3.0 - 7.0)	7.7 (6.0 - 10.0)
New Zealand	5.3 (3.0 - 9.0)	5.4 (0.0 - 12.0)	6.6 (3.0 - 10.0)	6.7 (3.0 - 12.0)
Total	6.6 (1.0 - 17.0)	7.2 (0.0 - 28.0)	6.4 (0.0 - 15.0)	7.6 (0.0 - 28.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). All EDs in Tasmania reported that they included non FACEM trainees in their FACEM trainee roster data and as such their data has been excluded.

The average total weekday and weekend rosters of EM Specialists and FACEM trainees for all on-floor and on-call shifts (day, evening and night) by hospital peer group are presented in Table 41. Major and Specialist EDs in Australia had much greater EM Specialist and FACEM trainee FTE rostered on weekends than on weekdays, compared with EDs in other peer groups.

Table 41 Average total EM Specialist and FACEM trainee FTE across all on-floor and on-call shifts over a 24 hour period by weekday and weekend (range in brackets), by hospital peer group.

	EM Specialists*		FACEM trainees	
	Weekday	Weekend	Weekday	Weekend
Hospital peer group	mean (range)	mean (range)	mean (range)	mean (range)
Australia				
Major	9.4 (6.0 - 14.0)	12.6 (3.0 - 24.0)	8.3 (5.0 - 14.0)	12.1 (3.0 - 22.0)
Large metropolitan	7.4 (4.0 - 17.0)	7.5 (2.0 - 14.0)	7.0 (2.0 - 15.0)	7.1 (2.0 - 15.0)
Medium metropolitan	5.1 (3.0 - 10.0)	4.5 (0.0 - 10.0)	5.2 (3.0 - 9.0)	5.1 (1.0 - 10.0)
Large regional	5.3 (2.0 - 8.0)	5.2 (0.0 - 15.0)	5.8 (3.0 - 8.0)	5.5 (1.0 - 15.0)
Small/medium regional	3.9 (1.0 - 7.0)	1.9 (0.0 - 6.0)	3.5 (0.0 - 7.0)	2.7 (0.0 - 6.0)
Private	5.1 (3.0 - 8.0)	2.5 (0.0 - 5.0)	4.7 (3.0 - 8.0)	3.3 (2.0 - 5.0)
Specialist	6.8 (5.0 - 9.0)	12.0 (4.0 - 28.0)	5.6 (3.0 - 8.0)	11.8 (4.0 - 28.0)
New Zealand				
Metropolitan	6.2 (5.0 - 9.0)	5.3 (0.0 - 9.0)	6.8 (5.0 - 10.0)	6.4 (3.0 - 9.0)
Regional	4.7 (3.0 - 7.0)	5.4 (0.0 - 12.0)	6.0 (3.0 - 9.0)	7.5 (3.0 - 12.0)

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). All EDs in Tasmania reported that they included non FACEM trainees in their FACEM trainee roster data and as such their data has been excluded.

With respect to alternative rostering, a number of EDs reported having overlapping or bridging shifts, for either all staff, FACEMs/senior staff, or for FACEM trainees. These ranged from one to seven overlapping additional shifts across the week or extra overlapping shifts over weekends or as required.

5. Discussion of Findings

The Census focuses on ED staffing, casemix and resourcing, as well as broader hospital services available across ACEM's accredited EDs. This report focuses on staffing and casemix. With respect to ED staffing, overall there were 3.4 EM Specialists per one EM Specialist FTE in accredited Australian EDs and 2.4 per one EM Specialist FTE in New Zealand EDs, indicating a higher number of EM Specialists were working part-time or across multiple sites in Australia. The number of EM Specialists working part-time in ACEM accredited EDs has almost doubled since the 2019 Census.

Large regional EDs in Australia were more likely to report having unfilled FACEM FTE, compared to EDs in other peer groups, representing over one third of the total vacant FACEM FTE (49.1 of the 129.9

vacant FACEM FTE). This data suggests that despite increasing FACEM numbers, maldistribution of the workforce persists, with an underrepresentation of FACEMs in regional-based EDs.

VMOs and locums were also widely utilised to staff ACEM accredited EDs. While almost two-thirds (65.8%) of EDs reported employing VMOs and/or locums, Large (56.5%) and Small/ medium (50.0%) regional EDs in Australia and Metropolitan (57.1%) EDs in New Zealand were more likely to employ locums, and all hospital peer groups except Metropolitan EDs in New Zealand reported employing VMOs to varying degrees. Major (17) EDs in Australia employed the highest average number of VMOs who worked on average, the most hours per week (141.6). The majority of these Major (80.0%) EDs reported employing VMOs on zero hours contracts.

As expected, the number of annual presentations for Australian and New Zealand EDs reported in the 2020 Census for the period 1 July 2019 to 30 June 2020 was less than the annual presentations reported in the 2019 Census and is likely to be due to the impact of the COVID-19 pandemic. Connected to this, four EDs saw more than 100,000 annual presentations in the 2019-20 financial year, down from six EDs in the 2019 Census. The decrease in annual presentations across the majority of sites could have resulted in the increase (from 25.2% to 31.2%) in the number of EDs that reported meeting the minimum recommended FACEM FTE according to ACEM's *Constructing and Retaining a Senior Emergency Medicine Workforce*, Guideline 23 (G23). More than half (60.0%) of Major Australian EDs were meeting the minimum recommended FACEM FTE, and consistent with the findings from the 2019 Census no Small/ medium regional Australian EDs met the minimum FACEM FTE.

Importantly and despite the decrease in annual presentations, the percentage of EDs reporting ED length of stays (LOS) of >24 hours has continued to increase, from 83.8% (119/142) of EDs for the 2019 Census to 90.1% (119/132) for the 2020 Census reporting period. Overall, patients with an ED LOS of >24 hours represented 0.5% of annual patient attendances, while patients with an ED LOS of >8 hours represented 8.5% of annual attendances. Seven EDs reported that over 2% of their annual attendances stayed in their ED for more than 24 hours, with Tasmania having the greatest percentage of patients with ED LOS's of >8, 12 and 24 hours. With longer stays in the ED linked to longer inpatient stays (Richardson, 2003), overcrowded EDs, and poorer patient outcomes (Donatelli, 2013) (Forster, 2003), it is concerning that more EDs are reporting a larger proportion of annual presentations with LOS's exceeding 24 hours.

In addition to the increase in percentage of EDs reporting ED LOS's of >24 hours there has been a dramatic increase in the average number of hours EDs reported that they were on ambulance bypass from the 2018-19 financial year (273 hours, range: 5 - 1,510 hours) to the 2019-20 financial year (706 hours, range: 4 to 3,502 hours). An increase in the number of instances where ambulances had waited more than 30 minutes to complete handover of a patient to the ED was also observed during the same period, from 3,136 instances (range: 8 – 20,196) to 3,284 instances (range: 5 – 20,079) respectively. This reflects the incredible strain that EDs and ambulance organisations are reporting with regard to ramping and access block.

A key focus for ACEM is equity in health and while most sites reported that the quality of the Aboriginal and/or Torres Strait Islander or Māori ED presentation data was good, 15 EDs (13 Australian and two New Zealand EDs) reported that the quality/ reliability of their data was poor. This included seven Private and three Large metropolitan EDs in Australia.

In summary, the 2020 Census has illustrated a number of workforce issues and highlighted concerning hospital trends among some sites, such as an inability to fill staffing vacancies and a reliance on VMOs and locums rather than a permanent FACEM workforce. The significant increase in the number of FACEMs working part time at ACEM accredited EDs was an interesting finding and may be a reflection of a decrease in available full-time positions and/ or may reflect FACEMs wanting better work-life balance and increased sustainability in their careers. Importantly though, the Census highlights more broadly the disparity between hospitals in regional peer groups and those classified as Major or metropolitan.

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7. Suggested Citation

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8. Contact for further information

Ms Katie Moore

Research Manager
ACEM Research Unit, Department of Policy and Strategic Partnerships
Australasian College for Emergency Medicine (ACEM)
34 Jeffcott Street, West Melbourne VIC 3003, Australia

Telephone: +61 3 9320 0444

9. Appendix 1

Australasian College for Emergency Medicine

2020 Annual Site Census

Sites with GENERAL Accreditation

1. Introduction

Each Emergency Department (ED) accredited by ACEM is required to complete this annual site census. Survey responses will inform site accreditation status and provide benchmarking data across Australia and New Zealand to inform College activities including quality improvement initiatives in education and policy. The survey covers:

- ACEM ED Staffing
- Other ED Staffing
- ED Casemix
- ED Resources
- Hospital Services

All EDs will receive a report of the survey findings. If you have any questions about this survey or the procedures, you may contact the Research Unit at: Research-Evaluation@acem.org.au

Please check your hospital name and the type of ED you have ACEM accreditation for:

Hospital: _____

ED Type: _____

2. Administration

2.1 ED and FACEM Training Program Management

Please complete the following tables relating to FACEMs with clinical or management roles in your ED, *where applicable (if zero, please include)*:

	Name	Total FTE
DEM 1		
DEM 2		
DEM 3		
DEM 4		
DEMT/Co-DEMT 1		
DEMT/Co-DEMT 2		
DEMT/Co-DEMT 3		
DEMT/Co-DEMT 4		
WBA Coordinator(s)		
Mentoring Coordinator(s)		
ACEM Director of Research *(if applicable)*		

2.1.1 On-Floor Supervision and Clinical Support Time

	Adult/ Mixed ED Hours per week
How many hours per week are FACEMs rostered for on-floor supervision (excluding clinical support time)? (hours per week should be no greater than 168 = 24h x 7 days)	
On average, how many hours per week of Clinical Support Time is allocated for the FACEMs involved in the training, education and assessment of your trainees?	
What is the total clinical support time (hours) of the DEM role per week?	
What is the total clinical support time (hours) of the DEMT role per week?	

	Adult/ Mixed ED %
On average, what is the percentage of individual trainee time under direct FACEM supervision?	
What is the percentage of FACEMs actively performing WBA's?	

	Adult/ Mixed ED Hours per month
What is the total clinical support time (hours per month) the ED provides for WBA Coordinator duties?	
If applicable, what is the total clinical support time (hours per month) the ED provides for the Director of Research role duties?	

2.2 Research related contacts

Please provide the following information relating to the best person to contact for data from your ED and the person who coordinates research (formally or informally) at your ED.

2.2.1 ED research coordinator (not necessarily the ACEM Director of Research)

Name:	
Position:	
Research qualifications:	
Email:	

2.2.1 ED or hospital data manager

☐ Same as ED research coordinator [please continue to Section 3]

Name:	
Position:	
Email:	

3. EM Specialist and FACEM Trainee Staffing

3.1 FACEMs/ Paediatric EM Specialists

For all current staff employed **permanently** (excluding VMOs/ Locums) by your **Adult/ Mixed ED**, please complete the following tables, *where applicable (if zero, please include)*:

	Adult/ Mixed ED Total FTE	**Adult/ Mixed ED** Total Head Count
FACEMs (with no PEM qualification)		
FACEM PEM Specialist		
FRACP PEM Specialist		

3.1.1 Vacancies

What is your current funded but unfilled FTE for the following emergency department roles?

If zero please include:

	Funded but unfilled FTE	Funded but unfilled for more than 6 months FTE	Are you actively trying to fill this vacancy?
FACEMs			Please select
PEM Specialists			Please select

If you have any comments relating to FACEM/ PEM Specialist vacancies, please add them below:

3.1.2 Visiting Medical Officers

Please answer the following questions relating to Visiting Medical Officers (VMOs) at FACEM level:

	Yes	No
Are VMOs (at FACEM level) currently employed within your ED?	☐	☐

If yes:

For all VMOs (at FACEM level employed by your ED, please provide the following information, *where applicable (if zero, please include)*:

Total VMO FTE: _____

Total VMO Head Count: _____

Total hours per week on average VMOs currently work in your ED: _____

Please select which contract options VMOs are employed on:

- ☐ Fixed hours contract
- ☐ Zero hours contract
- ☐ Other (please explain below)

3.1.3 Locums

Please answer the following questions relating to Locums at FACEM level:

	Yes	No
Are Locum FACEM level staff currently employed within your ED?	☐	☐

If yes:

How many (total head count) are currently working in your ED? _____

How many total hours per week on average are Locums currently working in your ED? _____

3.2 FACEM trainees

For all current staff employed **permanently** (excluding VMOs/ Locums) by your **Adult/ Mixed ED**, please complete the following tables, *where applicable (if zero, please include)*:

	Adult/ Mixed ED Total FTE	**Adult/ Mixed ED** Total Head Count
Advanced trainees		
Provisional trainees		

Given the current number of FACEMs in your ED available to provide on-floor supervision and the allocated non-clinical time for DEMTs, do you have capacity to take more FACEM trainees?

☐ Yes [If yes] How many more FACEM trainees can you employ? _____

☐ No

If you have any comments relating to your capacity to take more trainees, please add them below:

3.2.1 Vacancies

What is your current funded but unfilled FTE for the following emergency department roles?

If zero please include:

	Funded but unfilled FTE	Funded but unfilled for more than 6 months FTE	Are you actively trying to fill this vacancy (Y/N)
FACEM trainees			Please select

If you have funded but unfilled FTE: Have you filled this/ these vacancies with staff other than FACEM trainees?

- ☐ Yes
- ☐ No

If you have any comments relating to FACEM trainee vacancies, please add them below:

4. ED Clinical Cover

Please outline your current typical medical rosters for both weekdays and weekends providing the number of each staff for each shift rostered on-floor and on-call*:

Adult/ Mixed ED Roster	Day		Evening		Night	
	On floor	On-call	On floor	On-call	On floor	On-call
Monday to Friday						
FACEMs/ PEM Specialists†						
FACEM Trainees						
Saturday and Sunday						
FACEMs/ PEM Specialists†						
FACEM Trainees						

† Includes FRACP PEM Specialists and FACEM PEM Specialists

*If your staffing model does not fit the table above, please outline it here:

5. Other ED Staffing

5.1 Other Specialist ED Staff (excluding FACEMs with dual qualification and FRACP PEM Specialists)

Please complete the following table regarding other specialist ED staff (excluding FACEMs with dual qualification) working in your ED:

	Total FTE
Fellows of the Royal Australian College of General Practitioners (FRACGP)	
Fellows of the Australian College of Rural and Remote Medicine (ACCRM)	
Fellows of overseas Emergency Medicine Specialist College (on the SIMG pathway†)	
Fellows of overseas Emergency Medicine Specialist College (not on the SIMG pathway†)	
Medical Officers on the New Zealand Specialist Scale (NZ only)	
Other Specialist Physicians (excluding above)	

† SIMG Pathway refers to the ACEM Specialist International Medical Graduate (SIMG) Pathway.

5.2 Other medical staff

Please complete the following table regarding other medical staff working in your ED:

	Total FTE
Non-ACEM Registrars	
Medical Officers† (Includes CMO; SMO; SRMO; SHMO; SHO and MO (NZ EDs))	
Interns/ Junior Medical Officers	
Other medical staff excluding administrative staff (not covered by the above) Please specify:	

†CMO: Career Medical Officer; SMO: Salaried Medical Officer; SRMO: Salaried Resident Medical Officer; SHMO: Senior Hospital Medical Officer; SHO: Senior House Officer.

5.3 ED Administrative staff

Please complete the following table regarding ED administrative staff working in your ED:

	Total FTE
ED ward receptionist/ clerk	
EM Specialist secretarial/ ED administrative assistant	

5.4 Nursing staff

Please complete the following table regarding nursing staff working in your ED:

	Total FTE
Nurse Practitioners (Including Clinical Nurse Consultant/ Specialist)	
Nurse Unit Managers	
Nursing Educators	
Mental Health Nursing staff	
Total Nursing Staff (Including the above nursing staff and any other nursing staff e.g., enrolled nurses and registered nurses)	

With respect to any of your other ED staff identified above, how many of these are:

	Adult/ Mixed ED Head Count
Graduates of ACEM's EM Diploma	
Graduates of ACEM's EM Certificate (excluding EM Diploma)	

6. ED Casemix

6.1 Attendances, admissions and transfers

For the period **1 July 2019- 30 June 2020**, please provide where applicable the total number of:
(*If not applicable write n/a*)

	Total	**Adults**	**Paediatrics** ≤15 years
Patient attendances			
ATS 1 attendances			
ATS 2 attendances			
ATS 3 attendances			
ATS 4 attendances			
ATS 5 attendances			
Number of ambulance arrivals			
Inpatient admissions			
Inter-hospital transfers from ED			
SSU† (or equivalent) admissions from ED			
ICU† admissions from ED			
HDU† admissions from ED			
CCU† admissions from ED			
Paediatric ICU† admissions from ED			

†SSU=Short Stay Unit; ICU=Intensive Care Unit; HDU=High Dependency Unit; CCU= Critical Care Unit.

For the period **1 July 2019- 30 June 2020**, please provide where applicable the total number of:
(*If not applicable write n/a*)

	Total
The total number of Geriatric attendances (attendances of those aged 65 and over).	
The total number of Aboriginal & Torres Strait Islander presentations for Australian EDs OR the total number of Māori presentations for New Zealand EDs	

6.2 Cultural capabilities

Using the scale provided, please rate the indigenous status data captured by the ED, with respect to:

	Poor	Fair	Good	Very Good	Excellent
The quality of the data	☐	☐	☐	☐	☐
The reliability of the data	☐	☐	☐	☐	☐

If you have any comments on indigenous presentations to your ED or the quality or reliability of the indigenous status data captured by your ED, please provide them here:

Does your ED have an Indigenous Health Liaison Officer or equivalent (*please select all that apply*)?

- ☐ Employed by your ED
- ☐ Employed by your hospital and available in your ED
- ☐ Employed off-site but available to your ED
- ☐ My ED does not have access to an Indigenous Health Liaison Officer

6.3 ED Performance

For the period **1 July 2019- 30 June 2020**, please provide where applicable the total number of:
(*If not applicable write n/a*)

	Total
The total number of patient attendances who stayed in your SSU (or equivalent) for >24 hours	
The total number of patient attendances who stayed in your ED (excluding SSU or equivalent) for >8 hours	
The total number of patient attendances who stayed in your ED (excluding SSU or equivalent) for >12 hours	
The total number of patient attendances who stayed in your ED (excluding SSU or equivalent) for >24 hours	

6.4 Ambulance bypass and handover

For the period **1 July 2019- 30 June 2020**, please provide where applicable the total number of:
(*If not applicable write n/a*)

	Total
The total number of hours of ambulance bypass/ diversion for your ED.	
The total number instances where ambulances waited more than 30 minutes to complete the handover to the ED	

7. ED Resources

7.1 Beds and chairs

Please provide the number of beds and chairs, where applicable for the following areas:

	Adult/ Mixed ED	
	Beds	Chairs
Resuscitation		
Adult Emergency/ Acute		
Paediatric Emergency/ Acute		
Short Stay Unit (or equivalent)		
Low Acuity / Sub-Acute / Fast-track		
ED Mental Health Assessment (includes Behavioural Assessment Unit, Safe Assessment Room)		

7.2 Formal and informal networks

ACEM is interested in knowing about your Emergency Medicine (EM) networks - rural, training and other clinical networks you have with other emergency departments, hospitals or smaller facilities providing emergency care.

7.2.1 EM rural networks

According to ACEMs Statement on the Delineation of Emergency Departments (S27): An emergency medicine rural network is a grouping of regional and/or metropolitan hospitals and the smaller rural facilities to which they provide support. This includes clinical support, professional development and continuing education, telephone advice, telemedicine and medical retrievals.

Is your ED part of an EM rural network with smaller rural facilities that provide EM care, as per the S27 definition?

- ☐ Yes
- ☐ No

If no:

Please describe why you are not part of a rural EM network:

If yes:

Please describe your EM rural network: (*select all that apply*)

- ☐ Telehealth support agreement
- ☐ Patient pathway/transfer agreement
- ☐ Joint quality and safety processes
- ☐ Other (please describe): _____

Please describe what works well with your EM rural network:

Please describe what does not work well with your EM rural network:

7.2.2 EM training networks

An emergency medicine training network is defined as a group of hospitals that have formally agreed to a coordinated education and training program for emergency medicine trainees.

Is your ED part of an EM training network?

- ☐ Yes
- ☐ No

If no:

Please describe why you are not part of a training EM network:

If yes:

Please describe your EM training network: (*select all that apply*)

- ☐ Senior staff rotated to smaller site(s)
- ☐ Trainees rotated to smaller site(s) for emergency rotation
- ☐ Trainees rotated to smaller site(s) for non-emergency rotations
- ☐ Provide education as part of EMET network
- ☐ Other (please describe): _____

Please describe what works well with your EM training network:

Please describe what does not work well with your EM training network:

7.2.3 Other EM networks

Is your ED part of any other networks? (e.g., clinical, clinical support, formal or informal)

- ☐ Yes
- ☐ No

If yes:

Please describe your other network(s):

8. Restrictive practices

A key priority for ACEM is the development of an ACEM policy on the use of restrictive practices (physical and chemical restraint). We would like your help to develop this policy.

Does your ED use restrictive practices (chemical or physical)?

- ☐ Yes [continue with this section]
- ☐ No [please go to the 'Other hospital services' section]

Does your ED have clinical governance frameworks and/or guidelines governing the use of restrictive practices?

- ☐ Yes
- ☐ No

Does your ED/ hospital collect data on the use of restrictive practices in your ED? (*select all that apply*)

- ☐ Yes, on physical restraint
- ☐ Yes, on chemical restraint
- ☐ No, our ED does not collect data on the use of restrictive practices in our ED. [please go to the 'Other hospital services' section]

If yes:

How long is this data kept?

_____ months _____ years

- ☐ Unsure

Are you currently able to report on this data for auditing purposes?

- ☐ Yes
- ☐ No
- ☐ Unsure

Please outline the data variables collected related to use of restrictive practices in your ED:

Please comment on the reliability of the data collected on the use of restrictive practices in your ED (e.g. are standardised documentation tools used?):

9. Other Hospital Services

Please answer the following questions regarding your related hospital services.

9.1 Cardiac Catheter Lab

	Yes	No
Do you have on-site Cardiac Catheter Lab for urgent PCI in STEMI?	☐	☐

9.2 Major Trauma Service

	Yes	No
Are you designated as a Major Trauma Service?	☐	☐

If yes:

How many major trauma cases with an ISS>12 did your hospital treat in the 2018-19 financial year?

_____

9.3 Speciality Services

Please select all of the speciality services you have on-site and if they are accredited for training:

	On-site	Accredited for training
Anaesthetics	☐	☐
Cardiac surgery	☐	☐
Cardiology	☐	☐
Dental	☐	☐
Dermatology	☐	☐
Drug and Alcohol	☐	☐
Developmental Paediatrics	☐	☐
Endocrinology	☐	☐
ENT	☐	☐
Eye	☐	☐
Facio-maxillary	☐	☐
Gastroenterology	☐	☐
General medicine	☐	☐
General surgery	☐	☐
Geriatrics	☐	☐
Gynaecology	☐	☐
Haematology	☐	☐
Hyperbaric Medicine	☐	☐
Immunology	☐	☐
Infectious disease	☐	☐
Intensive Care	☐	☐
Metabolic/ Genetic	☐	☐

	On-site	Accredited for training
Neonatology	☐	☐
Neurology	☐	☐
Neurosurgery	☐	☐
Obstetrics	☐	☐
Oncology	☐	☐
Orthopaedics	☐	☐
Paediatrics	☐	☐
Palliative Care	☐	☐
Plastic surgery	☐	☐
Psychiatry	☐	☐
Radiology/ Medical Imaging (excluding interventional radiology and ultrasound)	☐	☐
Radiation Oncology	☐	☐
Rehabilitation Medicine	☐	☐
Renal	☐	☐
Respiratory	☐	☐
Rheumatology	☐	☐
Thoracic	☐	☐
Toxicology	☐	☐
Transplant	☐	☐
Trauma	☐	☐
Urology	☐	☐
Vascular Surgery	☐	☐

Please outline any other on-site speciality services and if they are accredited for training below:

This is the end of the Census, please save it and email it to the Research Unit at:

Research-Evaluation@acem.org.au