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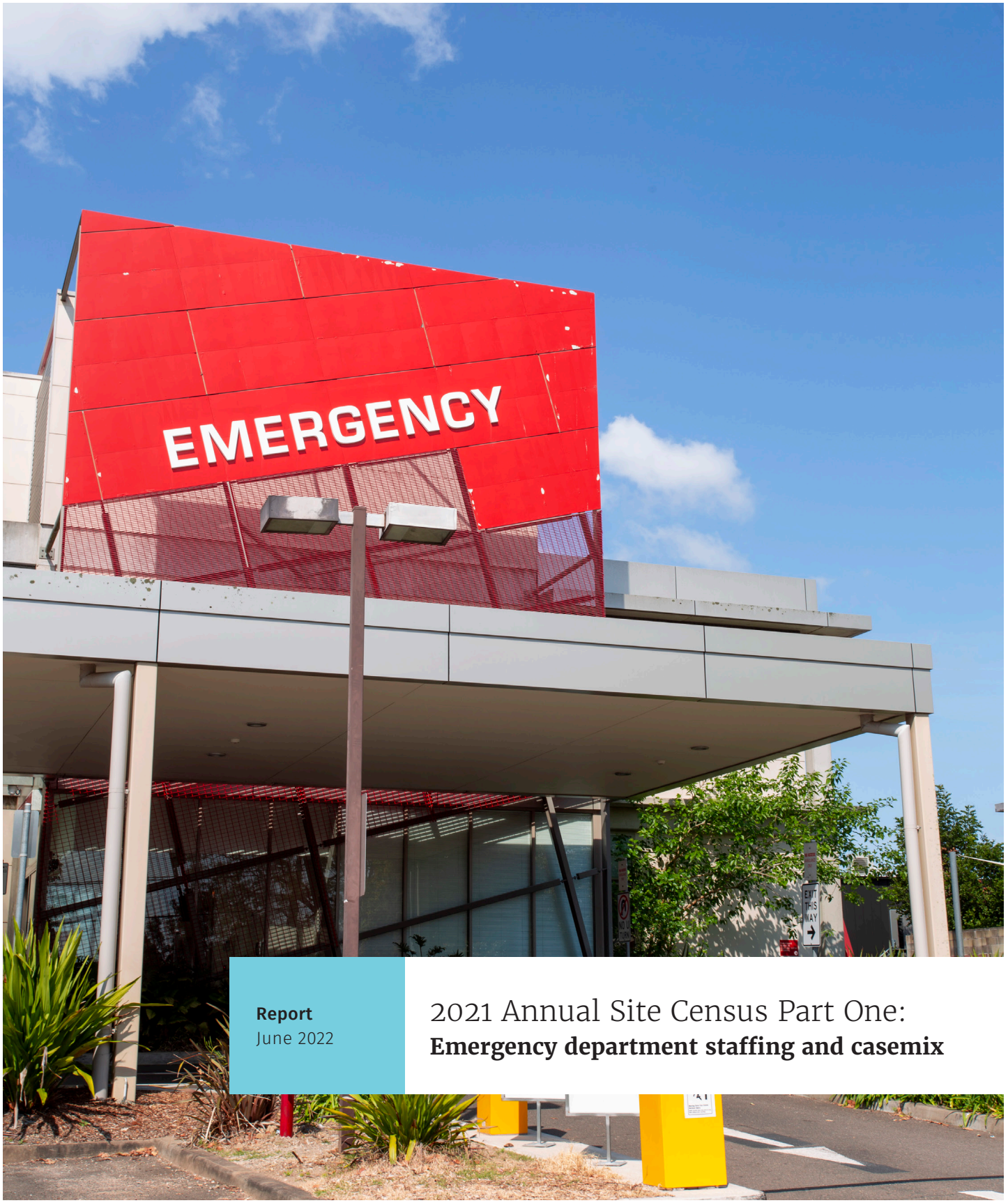


**Report**
June 2022

# 2021 Annual Site Census Part One:
## **Emergency department staffing and casemix**

# Australasian College for Emergency Medicine

## Key Findings: 2021 Annual Site Census
### Part one: emergency department staffing and casemix

The Australasian College for Emergency Medicine's 2021 Annual Site Census was distributed to all 147 ACEM-accredited Emergency Departments (EDs); all participated. The Census gathered data on ED staffing, casemix, resources, staff training and hospital services. Part one of the report focuses on ED staffing and casemix.

Annual presentations increased in both Australian (4.8%) and Aotearoa (5.9%) EDs compared with the 2020 Census.

**Nine** EDs saw greater than **100,000** annual ED attendances. compared to four EDs in the 2020 Census.

**90.6%** of EDs reported patients stayed in the ED of more than 24 hours, with Large regional EDs reporting the highest average percentage of patients.

**26.1%** of Australian EDs and **27.8%** of Aotearoa EDs met the ACEM G23 minimum FACEM staffing model.

Almost **half** of EDs reported FACEM vacancies and **over 60%** reported FACEM trainee vacancies.

**43.8%** of Australian EDs reported employing FACEM VMOs and **28.9%** reported employing locum FACEMs.

**Three** Aotearoa New Zealand EDs and **91** Australian EDs reported ambulances waited more than **30 minutes** to complete handover, averaging **4,770 instances** across EDs (range: 2 to 26,438), increasing from (3,284; range: 5 to 20,079) in the previous census.

**All** Aotearoa New Zealand EDs have an Indigenous Health Liaison Officer or equivalent available, yet **Eleven** Australian EDs did not have an Indigenous Health Liaison Officer available.

For the full findings, please refer to:
Australasian College for Emergency Medicine (2022),
2021 Annual Site Census Report - Part 1: ED Staffing and Casemix

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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 2021 to Directors of Emergency Medicine (DEMs) and Directors of Emergency Medicine Training (DEMTs) at all 147 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 Training Department. The Census focuses on ED staffing, casemix and ED activities, ED resources and broader hospital services available, with this report presenting the findings from the first two aspects (i.e., ED activities and staffing).

## 1.2 Summary of Findings

All of the 147 accredited EDs (128 in Australia and 19 in Aotearoa New Zealand) completed the Census.

### 1.2.1 *ED Activity*

- Attendances between 1 July 2020 and 30 June 2021 averaged over 56,000 across Australian EDs and over 53,000 across Aotearoa EDs, equating to a 4.8% and 5.9% increase from the 2020 Census, respectively.
- Seven Australian EDs and two EDs in Aotearoa saw greater than 100,000 annual ED attendances, compared to three Australian EDs and one Aotearoa ED in the 2020 Census.
- On average, one in four (26.3%) attendances to Australian EDs arrived by ambulance, compared with one in five (22.3%) in Aotearoa EDs.
- A greater proportion of ED attendances were admitted to Major and Private hospitals in Australia and Metropolitan hospitals in Aotearoa, compared to other hospital peer groups.
- Over 90% (126 of 139) of EDs reported patients' length of stay (LOS) in the ED for over 24 hours, increasing slightly from the 2020 census.
- Large Regional EDs in Australia and Regional EDs in Aotearoa had the highest average percentage of Short Stay Unit admissions with a LOS over 24 hours (7.4% and 1.9%, respectively).
- Of the responding 119 Australian EDs, 6.1% of patient attendances were for Aboriginal and/or Torres Strait Islander peoples, and 19.3% of patient attendances to the 19 responding Aotearoa EDs were for Māori.
- All Aotearoa EDs (100%) and almost all Australian EDs (98.4%) had interpreter services available in the ED.

### 1.2.2 *ED Staffing*

- Only 26.1% of the 119 responding Australian EDs met the ACEM G23 minimum FACEM staffing model; this represented a decrease in the number and percentage of EDs meeting G23 from the 2020 Census.
- Consistent with 2020 findings, 27.8% of the 18 responding Aotearoa EDs met the ACEM G23 minimum FACEM staffing model.
- Large Regional and Medium metropolitan EDs in Australia and Regional EDs in Aotearoa were more likely to report having unfilled EM Specialist full-time equivalent (FTE).
- Almost half (43.8%) of Australian EDs employed Visiting Medical Officers at the FACEM level.
- For night shifts on weekends, 102 EDs indicated that FACEM trainees were rostered on the floor, while only ten EDs indicated EM Specialists were rostered on the floor during nights.
- In Australia, there was one EM Specialist FTE to an average of 5,019 ED attendances, and one FACEM trainee FTE to 9,807 ED attendances. In Aotearoa, there was one EM Specialist FTE to an average of 4,098 ED attendances and one FACEM trainee to 7,965 ED attendances.
- The average EM Specialist FTE to FACEM trainee FTE ratio was one to 0.9 across all EDs, consistent with the 2020 Census findings.

## 2. Purpose and Scope

All ACEM-accredited EDs are mandated to complete the Annual Site Census, a joint initiative between the Research Unit within the Policy, Research and Partnerships Department and the Accreditation Unit within the 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. This report presents findings from the 2021 Annual Site Census, in particular the first half of the Census, which focused on ED staffing and casemix.

## 3. Methodology

The 2021 Census was distributed to all 147 accredited EDs in Australia and Aotearoa New Zealand in September 2021. The Census comprises questions on ED staffing and rostering, ED activities (including casemix, performance and cultural capabilities); ED staff training; ED resources and other hospital services. ED activity and performance data were sought for the period 1 July 2020 to 30 June 2021, with all other data being current at the time of completing the survey.

Census findings will be presented in two reports, this one which focuses on ED staffing and activities, and the second report which will focus on ED resources and hospital services. Refer to Appendix 1 for the survey tool.

The Census (in the format of PDF fillable form) was sent via customised email to all DEMs and DEMTs at individual accredited sites on 28 September 2021. Two reminder emails were sent to non-responding DEMs and DEMTs from the Research Unit, and one final reminder email was sent from the Accreditation Unit. The last submitted Census was received on 1 March 2022, and the follow-up for missing data concluded on 1 April 2022.

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 group classification: Major, Large metropolitan, Medium metropolitan, Large regional, Medium regional, Small regional, Private, and Specialist. For the purpose of this report, the EDs classified in the Medium regional and Small regional hospital peer groups were collapsed as 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 to maintain the hospital's anonymity, their data has been incorporated into the Metropolitan peer group where appropriate.

## 4. Results

This section presents the profile of participating EDs and the findings relating to ED activity, including annual attendances, ambulance arrivals, triage category, admissions and transferred patients, and staffing of EM Specialists and FACEM trainees, and the ratio of staff to attendances, and rostering including day, evening and night shifts for both on-floor and on-call rosters.

### 4.1 Profile of Participating EDs

All of the 147 accredited EDs completed the 2021 Census. Table 1 displays the breakdown of responding EDs by region in Australia and Aotearoa, and further analysis by peer group within each region.

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

| | n | Region (%) | Total (%) |
|---|---|---|---|
| Australia | 128 | | 87.1% |
| New South Wales | 42 | | 28.6% |
| *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 | 30 | | 20.4% |
| *Major* | 6 | 20.0% | |
| *Large metropolitan* | 7 | 23.3% | |
| *Medium metropolitan* | 5 | 16.7% | |
| *Large regional* | 5 | 16.7% | |
| *Medium regional* | 1 | 3.3% | |
| *Private* | 5 | 16.7% | |
| *Specialist* | 1 | 3.3% | |
| Queensland | 29 | | 19.7% |
| *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 | 3.5% | |
| Western Australia | 12 | | 8.2% |
| *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 | 7 | | 4.8% |
| *Major* | 2 | 28.6% | |
| *Large metropolitan* | 3 | 42.9% | |
| *Medium metropolitan* | 1 | 14.3% | |
| *Specialist* | 1 | 14.3% | |
| Tasmania | 3 | | 2.0% |
| *Major* | 1 | 33.3% | |
| *Large regional* | 2 | 66.7% | |
| Northern Territory | 3 | | 2.0% |
| *Major* | 1 | 33.3% | |
| *Large regional* | 1 | 33.3% | |
| *Small regional* | 1 | 33.3% | |
| Australian Capital Territory | 2 | | 1.4% |
| *Major* | 1 | 50.0% | |
| *Large metropolitan* | 1 | 50.0% | |
| Aotearoa | 19 | | 12.9% |
| *Metropolitan* | 6 | 31.6% | |
| *Regional* | 12 | 63.2% | |
| *Specialist* | 1 | 5.3% | |
| Total | 147 | | 100.0% |

## 4.2 ED Activity

This section contains ED activity and performance data for the period 1 July 2020 to 30 June 2021, presented by region and hospital peer group. Table 2 displays the average number of attendances in Australia and Aotearoa, with a further breakdown by region for Australian EDs. The table also includes the average percentage of paediatric attendances, geriatric attendances, admissions and transfers.

Seven Australian EDs and two Aotearoa EDs saw greater than 100,000 attendances during this period, an increase from four EDs in the 2020 Census. Australian EDs averaged 56,367 attendances for the period, an increase of 2,600 from the 2020 Census (53,767), equating to a 4.8% increase, also surpassing the 2019 Census average of 54,907. Aotearoa EDs averaged 53,872 attendances in the 2021 Census, a 5.9% increase compared to the 2020 Census (50,945); however this had not returned to the annual attendance average of the 2019 Census (59,274). The proportion of paediatric and geriatric attendances in Australia and Aotearoa were comparable, but Aotearoa EDs reported a relatively higher hospital admission rate.

***Table 2 Average total number of attendances, and the average percentage of paediatric and geriatric attendances, admissions and transfers for the period 1 July 2020 to 30 June 2021, by region.***

| | Total attendance | | | Admissions | Transfers | Paediatric attendance | Geriatric attendance* |
|---|---|---|---|---|---|---|---|
| Region | mean | minimum | maximum | % | % | % | % |
| Australia | 56,367 | 11,530 | 132,925 | 26.9% | 1.8% | 20.6% | 22.7% |
| *NSW* | 53,566 | 18,487 | 122,873 | 28.9% | 1.8% | 22.2% | 24.2% |
| *VIC* | 51,140 | 12,912 | 101,947 | 25.2% | 1.7% | 19.1% | 26.0% |
| *QLD* | 61,098 | 11,530 | 132,925 | 19.2% | 1.6% | 19.0% | 23.6% |
| *WA* | 65,026 | 23,814 | 110,914 | 26.5% | 1.8% | 22.6% | 25.7% |
| *SA* | 62,631 | 43,633 | 90,892 | 24.3% | 2.6% | 23.4% | 27.8% |
| *TAS* | 48,638 | 28,943 | 72,379 | 21.8% | 0.7% | 17.8% | 24.6% |
| *ACT* | 76,854 | 60,295 | 93,412 | 34.8% | 1.4% | 19.8% | 19.0% |
| *NT* | 46,952 | 34,101 | 64,092 | 34.5% | 2.8% | 20.9% | 10.8% |
| Aotearoa | 53,872 | 18,239 | 112,501 | 30.6% | 0.7% | 20.9% | 26.0% |
| Total | 57,753 | 11,530 | 132,925 | 27.3% | 1.7% | 20.6% | 23.1% |

Note: Paediatric attendances are ≤15 years (definition may vary slightly across EDs) and geriatric attendances are ≥65 years. Three Australian EDs did not provide admission data; four Australian EDs did not provide transfer data; two Australian and one Aotearoa ED did not provide paediatric attendance data; and three Australian EDs and Aotearoa ED did not provide geriatric attendance data; *Excludes n= 7 Specialist Children's EDs.

The average percentage of ambulance arrivals, and attendances by triage category for the period 1 July 2020 to 30 June 2021 are presented in Table 3, by region. Approximately one-third of all presentations to accredited EDs in Queensland (QLD), South Australia (SA) and Tasmania (TAS) arrived by ambulance, while the Northern Territory (NT) reported only half the percentage of ambulance arrivals, consistent with the 2020 Census findings.

***Table 3 Average percentage of ambulance arrivals and patient attendances by triage category (ATS) for the period 1 July 2020 to 30 June 2021, by region.***

| | Ambulance arrivals | ATS 1 attendances | ATS 2 attendances | ATS 3 attendances | ATS 4 attendances | ATS 5 attendances |
|---|---|---|---|---|---|---|
| Region | % | % | % | % | % | % |
| Australia | 26.3% | 0.8% | 14.4% | 39.7% | 38.5% | 6.5% |
| *NSW* | 24.8% | 0.8% | 14.2% | 37.3% | 38.7% | 9.0% |
| *VIC* | 28.6% | 0.7% | 14.2% | 40.9% | 37.6% | 6.9% |
| *QLD* | 33.2% | 0.7% | 15.5% | 42.6% | 34.0% | 6.8% |
| *WA* | 20.3% | 0.8% | 14.9% | 36.0% | 44.3% | 4.0% |
| *SA* | 32.3% | 1.5% | 16.0% | 42.4% | 35.2% | 5.0% |
| *TAS* | 33.4% | 0.7% | 12.2% | 37.8% | 40.6% | 8.3% |
| *ACT* | 22.5% | 0.6% | 11.9% | 42.1% | 37.6% | 7.9% |
| *NT* | 15.2% | 0.7% | 16.5% | 38.3% | 40.5% | 4.0% |
| Aotearoa | 22.4% | 0.9% | 14.8% | 44.7% | 31.4% | 4.2% |
| Total | 25.9% | 0.8% | 14.5% | 40.2% | 37.8% | 6.2% |

Note: ATS = Australasian Triage Scale. Four EDs in Australia and two EDs in Aotearoa did not provide ambulance arrival data and one Australian ED did not provide attendance data by Australasian Triage Scale.

Twelve Australian EDs reported that they were on ambulance bypass between 1 July 2020 and 30 June 2021, and none of the Aotearoa EDs reporting so. The mean number of hours on ambulance bypass across the Australian EDs over the 12-month period was 1,361 (range: 13 - 6,653 hours). This has continued to increase dramatically since the 2019 Census, where 14 EDs across Australia and Aotearoa reported an average of 273 hours (range: 5 - 1,510) on ambulance bypass, while in the 2020 Census, 11 EDs reported an average of 706 hours (range: 4 - 3,502) on ambulance bypass.

Three Aotearoa EDs and 91 Australian EDs reported that they had at least one instance where ambulances had waited more than 30 minutes to complete patient handover to the ED between 1 July 2020 and 30 June 2021 (average 4,770 instances, range: 2 - 26,438). This was an increase from the 2020 Census, where one Aotearoa ED and 90 Australian EDs reported an average of 3,284 instances (range: 5 - 20,079).

The Census asked about the total number of patients who stayed in the ED and Short Stay Unit (SSU) for greater than 24 hours. A total of 126 (90.6%) EDs reported that patients stayed in the ED over 24 hours. Overall, Australian and Aotearoa EDs reported a comparable proportion of patients with an ED length of stay (LOS) greater than 24 hours (Table 4). In Australia, TAS reported the highest average percentage of patients with a LOS greater than 24 hours (3.1%), followed by the Australian Capital Territory (ACT; 1.0%). A total of seven EDs reported that over 2% of presentations had a length of stay longer than 24 hours, including six Australian EDs and one Aotearoa ED.

***Table 4 Average percentage of patients with an ED LOS of >24 hours for the period 1 July 2020 to 30 June 2021, by region.***

| | Patients with a LOS >24 hrs |
|---|---|
| Jurisdiction | % |
| Australia | 0.5% |
| *NSW* | 0.7% |
| *VIC* | 0.1% |
| *QLD* | 0.4% |
| *WA* | 0.4% |
| *SA* | 0.8% |
| *TAS* | 3.1% |
| *ACT* | 1.0% |
| *NT* | 0.5% |
| Aotearoa | 0.4% |
| Total | 0.5% |

Note: LOS = length of stay. Eight Australian EDs did not provide data.

The average percentage of SSU and combined Intensive Care Unit (ICU), Critical Care Unit (CCU), and High Dependency Unit (HDU) admissions for the period 1 July 2020 to 30 June 2021 are presented by region in Table 5, along with patients with an SSU LOS of more than 24 hours. ACT reported the greatest percentage of patients admitted to SSU. Victoria (VIC) and QLD also reported a high percentage of SSU admissions, consistent with the 2020 Census. Despite a relatively smaller percentage of SSU admissions, Western Australia (WA) and TAS had the highest proportion of SSU admissions with a LOS of more than 24 hours.

***Table 5 Average percentage of SSU admissions, SSU LOS >24 hours and combined ICU, CCU, and HDU admissions for the period 1 July 2020 to 30 June 2021, by region.***

| | SSU admissions | Patients with a LOS in SSU >24 hours | ICU, CCU and HDU admissions |
|---|---|---|---|
| Region | % | % | % |
| Australia | 13.3% | 4.5% | 1.8% |
| *NSW* | 9.7% | 5.7% | 2.1% |
| *VIC* | 17.3% | 5.8% | 2.4% |
| *QLD* | 15.7% | 2.6% | 1.2% |
| *WA* | 9.3% | 6.0% | 1.0% |
| *SA* | 13.2% | 1.4% | 2.0% |
| *TAS* | 8.3% | 6.9% | 0.7% |
| *ACT* | 17.7% | 3.4% | 1.5% |
| *NT* | 7.9% | 1.8% | 0.6% |
| Aotearoa | 10.8% | 1.5% | 2.0% |
| Total | 13.0% | 4.2% | 1.8% |

Note: CCU = critical care unit, ICU = intensive care unit, HDU = high dependency unit, LOS = length of stay, SSU = short stay unit; excludes n= 7 Specialist Children's hospitals; 111 Australian and 16 Aotearoa EDs provided SSU admissions, 101 Australian and 14 Aotearoa EDs provided LOS in SSU >24 hours data, 113 Australian and 17 Aotearoa EDs provided ICU/CCU/HDU data.

Table 6 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 previous Census findings, Metropolitan EDs had higher average ED total attendances than Regional EDs; Private EDs had the highest average percentage of admissions; and Aotearoa Metropolitan EDs had a higher average percentage of paediatric attendances than Regional EDs. Contrasting previous Census findings where Regional EDs had a higher average percentage of paediatric attendances, more comparable percentages of paediatric attendances were seen in the Metropolitan and Regional EDs in Australia.

Notably, Medium metropolitan EDs in Australia had the highest average percentage of transfers, followed by the Small/medium regional EDs. Average percentage of geriatric attendances were comparable between metropolitan and regionally located EDs in Australia.

***Table 6 Average total number of attendances, and the average percentage of paediatric and geriatric attendances, admissions, and transfers for the period 1 July 2020 to 30 June 2021, by hospital peer group.***

| | Total attendance | | | Admissions | Transfers | Paediatric attendance | Geriatric attendance* |
|---|---|---|---|---|---|---|---|
| Hospital peer group | mean | minimum | maximum | % | % | % | % |
| Australia | | | | | | | |
| *Major* | 80,169 | 41,701 | 132,925 | 30.5% | 1.0% | 13.9% | 23.4% |
| *Large metropolitan* | 66,893 | 36,017 | 122,873 | 24.5% | 1.9% | 17.2% | 24.0% |
| *Medium metropolitan* | 44,824 | 22,078 | 71,268 | 18.0% | 3.5% | 20.4% | 21.9% |
| *Large regional* | 45,858 | 25,103 | 83,089 | 25.9% | 1.1% | 19.4% | 23.3% |
| *Small/medium regional* | 30,707 | 16,531 | 42,941 | 16.9% | 3.4% | 20.0% | 20.3% |
| *Private* | 19,310 | 11,530 | 30,206 | 36.3% | 1.6% | 10.3% | 40.5% |
| *Specialist* | 60,785 | 34,712 | 80,204 | 17.9% | 0.3% | 96.5% | - |
| Aotearoa | | | | | | | |
| *Metropolitan* | 70,072 | 31,517 | 112,501 | 32.0% | 1.2% | 29.8% | 25.3% |
| *Regional* | 44,423 | 18,239 | 86,460 | 29.7% | 0.5% | 16.5% | 26.3% |

Note: Paediatric attendances are ≤15 years (definition may vary slightly across EDs) and geriatric attendances are ≥65 years. Three Australian EDs did not provide admission data; four Australian and one Aotearoa ED did not provide transfer data; two Australian and one Aotearoa ED did not provide paediatric attendance data; two Australian and one Aotearoa ED did not provide geriatric attendance data. *Excludes n= 7 Specialist Children's EDs.

The average percentage of ambulance arrivals and attendances by triage category are presented in Table 7, by peer group. Specialist EDs had the smallest percentage of their patients arriving by ambulance compared with EDs in other peer groups. Private and 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 2020 Census.

***Table 7 Average percentage of ambulance arrivals and patient attendances by triage category (ATS) for the period 1 July 2020 to 30 June 2021, by hospital peer group.***

| | Ambulance arrivals | ATS 1 attendances | ATS 2 attendances | ATS 3 attendances | ATS 4 attendances | ATS 5 attendances |
|---|---|---|---|---|---|---|
| Hospital peer group | % | % | % | % | % | % |
| Australia | | | | | | |
| *Major* | 32.7% | 1.4% | 18.0% | 42.5% | 31.4% | 6.4% |
| *Large metropolitan* | 31.0% | 0.8% | 16.1% | 42.1% | 34.3% | 6.7% |
| *Medium metropolitan* | 22.5% | 0.6% | 14.7% | 40.4% | 38.9% | 5.6% |
| *Large regional* | 28.8% | 0.6% | 13.3% | 38.4% | 39.0% | 8.7% |
| *Small/medium regional* | 18.2% | 0.4% | 11.5% | 34.0% | 44.9% | 9.1% |
| *Private* | 22.1% | 0.1% | 9.1% | 37.1% | 44.4% | 9.3% |
| *Specialist* | 12.6% | 0.7% | 8.6% | 27.9% | 57.5% | 5.4% |
| Aotearoa | | | | | | |
| *Metropolitan* | 22.0% | 1.1% | 14.5% | 47.0% | 33.1% | 4.3% |
| *Regional* | 22.7% | 0.7% | 14.9% | 43.4% | 30.4% | 4.2% |

Note: ATS = Australasian Triage Scale. Four EDs in Australia and one ED in Aotearoa did not provide ambulance arrival data and one Australian ED did not provide attendance data by Australasian Triage Scale (ATS).

In Australia, Large Regional EDs had the highest average percentage of patients with LOS over 24 hours (0.9%), followed by the Major referral EDs (0.7%) (Table 8). Consistently, Regional EDs in Aotearoa also reported a higher average percentage of patients with an ED LOS over 24 hours (0.5%) than Metropolitan

EDs (0.1%). Of the seven EDs that reported over 2% of patients having a LOS greater than 24 hours, three were Major hospitals, three were Large Regional or Regional (Aotearoa) and one Medium Metropolitan ED.

***Table 8 Average percentage of patients with an ED LOS of >24 hours for the period 1 July 2020 to 30 June 2021, by hospital peer group.***

| | Patients with a LOS >24 hrs |
|---|---|
| Hospital peer group | % |
| Australia | |
| *Major* | 0.7% |
| *Large metropolitan* | 0.4% |
| *Medium metropolitan* | 0.4% |
| *Large regional* | 0.9% |
| *Small/medium regional* | 0.4% |
| *Private* | 0.3% |
| *Specialist* | 0.0% |
| Aotearoa | |
| *Metropolitan* | 0.1% |
| *Regional* | 0.5% |

Note: LOS = length of stay. Eight Australian EDs did not provide data.

The average percentage of SSU and combined ICU, CCU, and HDU admissions for the period 1 July 2020 to 30 June 2021 are presented by hospital peer group in Table 9, along with patients with an SSU LOS of more than 24 hours. Consistent with the findings from the 2020 and 2019 Census, a greater percentage of patients attending Major and Metropolitan EDs across Australia and Aotearoa were admitted to SSUs, whereas a greater proportion of patients were admitted to ICU, CCU and HDUs in Private EDs. Consistent with the earlier findings for the patients with ED LOS over 24 hours, the Large regional EDs in Australia also had the largest percentage of patients with LOS in SSU over 24 hours compared with other peer groups.

***Table 9 Average percentage of SSU, and combined ICU, CCU, and HDU admissions for the period 1 July 2020 to 30 June 2021, by hospital peer group.***

| | SSU admissions | LOS in SSU >24 hours | ICU, CCU and HDU admissions |
|---|---|---|---|
| Hospital peer group | % | % | % |
| Australia | | | |
| *Major* | 14.9% | 2.6% | 1.9% |
| *Large metropolitan* | 15.1% | 5.6% | 1.2% |
| *Medium metropolitan* | 18.0% | 5.3% | 0.8% |
| *Large regional* | 12.1% | 7.4% | 1.6% |
| *Small/medium regional* | 6.2% | 1.2% | 1.6% |
| *Private* | 1.7% | 1.6% | 4.7% |
| Aotearoa | | | |
| *Metropolitan* | 20.2% | 0.7% | 1.2% |
| *Regional* | 5.1% | 1.9% | 2.3% |

Note: CCU = critical care unit, ICU = intensive care unit, HDU = high dependency unit, LOS = length of stay, SSU = short stay unit; excludes n= 7 Specialist Children's hospitals; 111 Australian and 16 Aotearoa EDs provided SSU admissions, 101 Australian and 14 Aotearoa EDs provided LOS in SSU >24 hours data, 113 Australian and 17 Aotearoa EDs provided ICU/CCU/HDU data.

### 4.3 Aboriginal and/or Torres Strait Islander and Māori Presentations

The total number of patients attending ACEM's accredited EDs self-identified as Aboriginal and/or Torres Strait Islander peoples for Australian EDs, or Māori for Aotearoa EDs, was provided for the period 1 July 2020 to 30 June 2021. According to the Australian Institute of Health and Welfare, the under-identification of Indigenous people in national health data sets is an ongoing challenge (Australian Institute of Health and Welfare, 2021). 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 in their ED.

Nine Australian EDs did not provide data regarding Aboriginal and/or Torres Strait Islander presentations. Of 119 Australian EDs that provided data, Aboriginal and/or Torres Strait Islander patient attendances represented 6.1% of ED attendances to accredited Australian EDs, ranging from 2.0% of ED attendances in VIC to 41.1% in the NT (Table 10). Overall, more than three-quarters of Australian EDs rated the quality (78.4%) and reliability (78.6%) of their Indigenous status data as 'Good', higher than what was reported in the 2020 Census (76.9% and 77.7%, respectively). However, only one of three TAS EDs rated the quality and reliability of this data as Good.

***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 2020 to 30 June 2021, by region.***

| | Attendances | | Quality of data | | | | Reliability of data | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Poor | Fair | Good | | Poor | Fair | Good |
| Region | n | % | n | % | % | % | n | % | % | % |
| NSW | 39 | 6.2% | 41 | 0.0% | 19.5% | 80.5% | 41 | 2.4% | 14.6% | 82.9% |
| VIC | 28 | 2.0% | 30 | 6.7% | 13.3% | 80.0% | 30 | 6.7% | 16.7% | 76.7% |
| QLD | 27 | 7.9% | 28 | 17.9% | 14.3% | 67.9% | 29 | 17.2% | 17.2% | 65.5% |
| WA | 10 | 4.7% | 12 | 0.0% | 16.7% | 83.3% | 12 | 0.0% | 25.0% | 75.0% |
| SA | 7 | 4.8% | 7 | 0.0% | 0.0% | 100.0% | 7 | 0.0% | 0.0% | 100.0% |
| TAS | 3 | 6.2% | 3 | 0.0% | 66.7% | 33.3% | 3 | 0.0% | 66.7% | 33.3% |
| ACT | 2 | 4.3% | 1 | 0.0% | 0.0% | 100.0% | 1 | 0.0% | 0.0% | 100.0% |
| NT | 3 | 41.1% | 3 | 0.0% | 0.0% | 100.0% | 3 | 0.0% | 0.0% | 100.0% |
| Total | 119 | 6.1% | 125 | 5.6% | 16.0% | 78.4% | 126 | 6.2% | 15.2% | 78.6% |

Note: The scale for data quality and reliability included 'Poor', 'Fair', 'Good', 'Very Good', and 'Excellent'. Responses rated as Good/ Very Good/ Excellent were grouped and presented as 'Good'

DEMs and DEMTs were given an option to comment on Indigenous presentations to their ED or the quality or reliability of the Indigenous status data captured by their ED. Thirty-seven EDs provided feedback, which included patients were generally asked to provide their Indigenous status on presentation/ registration/ triage (n= 21), or feedback that reflected concerns regarding the quality of the data captured (n= 19), such as:

- some patients preferred not to provide this data (n= 5),
- issues with data management system(s) (n= 5),
- patient's Indigenous status was self-reported (n=4),
- data collection was not standardised (n= 4),
- data was collected by clerical staff but not documented for clinical assessment (n= 3), and
- some patients were too unwell and may not be able to be asked (n= 2).

Four sites commented that their ED system and/ or process of collecting Indigenous status information were under review or pending improvement.

Table 11 presents the percentage of Aboriginal and/or Torres Strait Islander patient attendances, and the quality and reliability of the Indigenous status data collected by hospital peer group. Not surprisingly, the proportion of Aboriginal and/or Torres Strait Islander attendances was significantly higher in EDs located in regional areas of Australia. The proportion of ED patients attending Private EDs in Australia who identified as Aboriginal and/or Torres Strait Islander was very low (0.2%). A smaller proportion of Private and Specialist EDs rated the quality or reliability of their Indigenous status data as good.

***Table 11 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 2020 to 30 June 2021, 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 | 5.5% | 31 | 3.2% | 16.1% | 80.7% | 31 | 0.0% | 12.9% | 83.9% |
| Large metropolitan | 29 | 4.1% | 30 | 3.3% | 20.0% | 76.7% | 30 | 3.3% | 26.7% | 70.0% |
| Medium metropolitan | 15 | 3.7% | 16 | 6.3% | 12.5% | 81.2% | 16 | 6.3% | 12.5% | 81.2% |
| Large regional | 23 | 13.3% | 22 | 4.6% | 4.6% | 90.8% | 22 | 4.6% | 4.6% | 90.8% |
| Small/medium regional | 9 | 12.9% | 10 | 0.0% | 20.0% | 80.0% | 10 | 10.0% | 10.0% | 80.0% |
| Private | 6 | 0.2% | 10 | 30.0% | 20.0% | 50.0% | 11 | 27.3% | 27.3% | 45.4% |
| Specialist | 6 | 2.5% | 6 | 0.0% | 33.3% | 66.7% | 6 | 0.0% | 33.3% | 66.7% |

All Aotearoa EDs provided data regarding Māori presentations. Table 12 presents the percentage of Māori patient attendances and the quality and reliability of the data collected by hospital peer group for Aotearoa EDs. Māori patient attendances accounted for 19.3% of the total ED attendances in Aotearoa EDs. All Metropolitan EDs rated the quality and reliability of their Māori attendance data as 'Good', with a smaller proportion of Regional EDs reporting so.

***Table 12 Percentage of Māori patient attendances; and the quality and reliability of the data collected in Aotearoa EDs for the period 1 July 2020 to 30 June 2021, 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 | 14.6% | 7 | 0.0% | 0.0% | 100.0% | 7 | 0.0% | 0.0% | 100.0% |
| Regional | 12 | 23.6% | 12 | 0.0% | 25.0% | 75.0% | 12 | 8.3% | 8.3% | 83.3% |
| Total | 19 | 19.3% | 19 | 0.0% | 15.8% | 84.2% | 19 | 5.3% | 5.3% | 89.4% |

### 4.3.1 *Indigenous Health Liaison Officer(s)*

A total of 127 Australian-based EDs and 19 Aotearoa-based EDs responded to the question asking whether their ED has an Indigenous Health Liaison Officer (IHLO) or equivalent (Table 13). A higher percentage of Australian EDs (8.7%) reported that they did not have access to an IHLO in their ED, compared with none of the Aotearoa EDs (0%), consistent with findings of the 2020 Census. The majority of EDs reported that the IHLO was employed by the hospital but available in their ED (n= 109, 74.7%), with only 7 (4.8%) EDs reporting the IHLO was employed by their ED.

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

| | | 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 |
|---|---|---|---|---|---|
| Region | n | % | % | % | % |
| Australia | 127 | 3.9% | 72.4% | 15.7% | 8.7% |
| *NSW* | 41 | 4.9% | 63.4% | 26.8% | 7.3% |
| *VIC* | 30 | 0.0% | 76.7% | 16.7% | 10.0% |
| *QLD* | 29 | 6.9% | 75.9% | 6.9% | 10.3% |
| *WA* | 12 | 0.0% | 83.3% | 8.3% | 8.3% |
| *SA* | 7 | 14.3% | 57.1% | 14.3% | 0.0% |
| *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% |
| Aotearoa | 19 | 10.5% | 89.5% | 0.0% | 0.0% |
| Total | 146 | 4.8% | 74.7% | 13.7% | 7.5% |

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

Table 14 presents the response rates to whether EDs had an IHLO by hospital peer group. Eight (72.7%) of 11 Private EDs also reported not having access to IHLOs, consistent with the findings from the 2020 Census. Regional EDs in Australia were also more likely to report having no access to IHLOs, despite reporting a higher proportion of Aboriginal and Torres Strait Islander peoples among their ED presentations. Metropolitan EDs in Aotearoa were slightly more likely than regional EDs (14.3% vs. 8.3%) to report having the IHLO employed by their ED.

***Table 14 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 | 6.5% | 90.3% | 3.2% | 0.0% |
| *Large metropolitan* | 31 | 0.0% | 77.4% | 22.6% | 0.0% |
| *Medium metropolitan* | 16 | 6.3% | 50.0% | 43.8% | 0.0% |
| *Large regional* | 22 | 9.1% | 81.8% | 4.5% | 9.1% |
| *Small/medium regional* | 10 | 0.0% | 80.0% | 10.0% | 10.0% |
| *Private* | 11 | 0.0% | 9.1% | 27.3% | 72.7% |
| *Specialist* | 6 | 0.0% | 83.3% | 0.0% | 0.0% |
| Aotearoa | | | | | |
| *Metropolitan* | 7 | 14.3% | 85.7% | 0.0% | 0.0% |
| *Regional* | 12 | 8.3% | 91.7% | 0.0% | 0.0% |

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

A total of 135 EDs reported having access to an IHLO [90.6% (n= 116) of Australian EDs, 100% (n= 19) of Aotearoa EDs]. Of these, the availability of IHLOs in EDs across the day, evening, and night of weekdays and weekends are presented by region (Table 15) and hospital peer group (Table 16). IHLOs were less likely to be available for patients during the night, with no ED reporting the availability of an IHLO on-site at night. On weekdays, IHLOs were more likely to be available on-site rather than off-site or on-call during the day. On the contrary, IHLOs were generally more likely to be available off-site or on-call in evenings. Whereas on weekends, IHLOs were more likely to be available off-site or on-call across the day, evening and night.

***Table 15 Percentage of EDs that reported having Indigenous Health Liaison Officer(s) or equivalent available in their ED and their weekdays and weekend availability (onsite vs. off-site or on-call), by region.***

| | | Availability on weekdays | | | | | Availability on weekends | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Region | n | Day (ON) % | Day (OFF) % | Eve (ON) % | Eve (OFF) % | Night (OFF) % | Day (ON) % | Day (OFF) % | Eve (ON) % | Eve (OFF) | Night (OFF) % |
| Australia | 116 | 76.7% | 24.1% | 9.5% | 19.8% | 12.1% | 13.8% | 20.7% | 8.6% | 19.0% | 12.9% |
| *NSW* | 38 | 60.5% | 36.8% | 5.3% | 23.7% | 15.8% | 5.3% | 23.7% | 5.3% | 23.7% | 18.4% |
| *VIC* | 27 | 70.4% | 33.3% | 3.7% | 29.6% | 18.5% | 0.0% | 40.7% | 3.7% | 29.6% | 18.5% |
| *QLD* | 26 | 88.5% | 7.7% | 19.2% | 3.8% | 3.8% | 34.6% | 3.8% | 15.4% | 3.8% | 3.8% |
| *WA* | 11 | 100.0% | 9.1% | 9.1% | 18.2% | 0.0% | 18.2% | 0.0% | 18.2% | 9.1% | 0.0% |
| *SA* | 7 | 85.7% | 14.3% | 14.3% | 28.6% | 14.3% | 14.3% | 42.9% | 0.0% | 28.6% | 14.3% |
| *TAS* | 2 | 100.0% | 50.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| *ACT* | 2 | 100.0% | 0.0% | 50.0% | 0.0% | 0.0% | 50.0% | 0.0% | 50.0% | 0.0% | 0.0% |
| *NT* | 3 | 100.0% | 0.0% | 0.0% | 33.3% | 33.3% | 33.3% | 0.0% | 0.0% | 33.3% | 33.3% |
| Aotearoa | 19 | 78.9% | 21.1% | 5.3% | 31.6% | 21.1% | 0.0% | 42.1% | 0.0% | 42.1% | 21.1% |
| Total | 135 | 77.0% | 23.7% | 8.9% | 21.5% | 13.3% | 11.9% | 23.7% | 7.4% | 22.2% | 14.1% |

Note: ON = On-site. OFF = off-site or on-call. All EDs reported only off-site or on-call availability during the night shift. Responses were not mutually exclusive, with respondents able to select more than one option.

In Australia, a lower percentage of Regional EDs reported having access to IHLOs in the evenings and overnight compared to other peer groups. Small/medium regional EDs reported having access to an IHLO only during days.

***Table 16 Percentage of EDs reported having Indigenous Health Liaison Officer(s) or equivalent available in their ED and their weekdays and weekend availability (on-site vs. off-site or on-call), by hospital peer group.***

| | | Availability on weekdays | | | | | Availability on weekends | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Region | n | Day (ON) % | Day (OFF) % | Eve (ON) % | Eve (OFF) % | Night (OFF) % | Day (ON) % | Day (OFF) % | Eve (ON) % | Eve (OFF) % | Night (OFF) % |
| Australia | | | | | | | | | | | |
| *Major* | 31 | 90.3% | 6.5% | 16.1% | 19.4% | 19.4% | 25.8% | 12.9% | 16.1% | 22.6% | 22.6% |
| *Large metropolitan* | 31 | 74.2% | 35.5% | 9.7% | 16.1% | 6.5% | 12.9% | 22.6% | 6.5% | 12.9% | 6.5% |
| *Medium metropolitan* | 16 | 56.3% | 50.0% | 6.3% | 50.0% | 25.0% | 6.3% | 37.5% | 6.3% | 43.8% | 25.0% |
| *Large regional* | 20 | 85.0% | 20.0% | 10.0% | 5.0% | 0.0% | 10.0% | 15.0% | 10.0% | 5.0% | 0.0% |
| *Small/medium regional* | 9 | 88.9% | 0.0% | 0.0% | 0.0% | 0.0% | 11.1% | 0.0% | 0.0% | 0.0% | 0.0% |
| *Private* | 3 | 0.0% | 66.7% | 0.0% | 33.3% | 0.0% | 0.0% | 66.7% | 0.0% | 33.3% | 0.0% |
| *Specialist* | 6 | 66.7% | 16.7% | 0.0% | 33.3% | 33.3% | 0.0% | 33.3% | 0.0% | 33.3% | 33.3% |
| Aotearoa | | | | | | | | | | | |
| *Metropolitan* | 7 | 71.4% | 28.6% | 0.0% | 57.1% | 28.6% | 0.0% | 42.9% | 0.0% | 57.1% | 28.6% |
| *Regional* | 12 | 83.3% | 16.7% | 8.3% | 16.7% | 16.7% | 0.0% | 41.7% | 0.0% | 33.3% | 16.7% |

Note: ON = On-site. OFF = off-site or on-call. All EDs reported only off-site or on-call availability during the night shift. Responses were not mutually exclusive, with respondents able to select more than one option.

A total of 116 Australian EDs and all Aotearoa EDs rated how frequently IHLOs were asked to see patients in their ED (Table 17). The NT (66.7%) and QLD (53.8%) were among the regions with the highest percentage of EDs rating that IHLOs were being seen by patients often or very often. All TAS EDs reported IHLOs were rarely requested to see patients.

***Table 17: Percentage of EDs that report the frequency of Indigenous Health Liaison Officer being seen by patients, by region.***

| | n | Very often % | Often % | Sometimes % | Occasionally % | Rarely % | Unsure % |
|---|---|---|---|---|---|---|---|
| Australia | 116 | 14.7% | 17.2% | 19.8% | 21.6% | 24.1% | 2.6% |
| *NSW* | 38 | 15.8% | 15.8% | 10.5% | 26.3% | 28.9% | 2.6% |
| *VIC* | 27 | 7.4% | 3.7% | 14.8% | 29.6% | 40.7% | 3.7% |
| *QLD* | 26 | 15.4% | 38.5% | 30.8% | 3.8% | 7.7% | 3.8% |
| *WA* | 11 | 18.2% | 9.1% | 27.3% | 36.4% | 9.1% | 0.0% |
| *SA* | 7 | 14.3% | 28.6% | 28.6% | 14.3% | 14.3% | 0.0% |
| *TAS* | 2 | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% |
| *ACT* | 2 | 0.0% | 0.0% | 50.0% | 50.0% | 0.0% | 0.0% |
| *NT* | 3 | 66.7% | 0.0% | 33.3% | 0.0% | 0.0% | 0.0% |
| Aotearoa | 19 | 5.3% | 21.1% | 57.9% | 15.8% | 0.0% | 0.0% |
| Total | 135 | 13.3% | 17.8% | 25.2% | 20.7% | 20.7% | 2.2% |

A higher percentage of Metropolitan EDs in Aotearoa reported IHLOs were often requested to be seen by patients, compared to Regional EDs (Table 18). On the contrary, a larger proportion of Metropolitan EDs than Regional EDs in Australia reported IHLOs were rarely requested to be seen by patients.

***Table 18 Percentage of EDs that report the frequency of Indigenous Health Liaison Officer being seen by patients, by hospital peer group***

| | | Very often | Often | Sometimes | Occasionally | Rarely | Unsure |
|---|---|---|---|---|---|---|---|
| | n | % | % | % | % | % | % |
| Australia | | | | | | | |
| *Major* | 31 | 19.4% | 16.1% | 25.8% | 29.0% | 9.7% | 0.0% |
| *Large metropolitan* | 31 | 16.1% | 25.8% | 16.1% | 9.7% | 29.0% | 3.2% |
| *Medium metropolitan* | 16 | 0.0% | 12.5% | 0.0% | 31.3% | 50.0% | 6.3% |
| *Large regional* | 20 | 25.0% | 20.0% | 25.0% | 20.0% | 5.0% | 5.0% |
| *Small/medium regional* | 9 | 11.1% | 11.1% | 22.2% | 22.2% | 33.3% | 0.0% |
| *Private* | 3 | 0.0% | 0.0% | 33.3% | 0.0% | 66.7% | 0.0% |
| *Specialist* | 6 | 0.0% | 0.0% | 33.3% | 33.3% | 33.3% | 0.0% |
| Aotearoa | | | | | | | |
| *Metropolitan* | 7 | 0.0% | 28.6% | 71.4% | 0.0% | 0.0% | 0.0% |
| *Regional* | 12 | 8.3% | 16.7% | 50.0% | 25.0% | 0.0% | 0.0% |

#### 4.3.2 *Indigenous health or support worker(s)*

The Census also asked sites if there were any other Indigenous health or support workers who operate in the ED or waiting room to support Indigenous patients and carers. Indigenous health or support workers encompass roles such as Peer Support Workers, Aboriginal Access Workers, and Waiting Room Greeters. Twenty-two EDs (19 Australian EDs and three Aotearoa EDs) reported the availability of other Indigenous health or support workers in their EDs. Of these, fifteen sites reported that it was an identified position.

Sites were further asked to describe the role(s), of which 21 provided descriptions. The most common roles were support workers who operated in a non-clinical capacity (n= 18). Their tasks included meeting patients on arrival, speaking to patients in the waiting room, providing cultural and emotional support, preparing meals, and liaising with clinical staff and patient advocacy. Other described roles included mental health Indigenous liaison officer (n= 1), Indigenous liaison doctor who attempts to visit all patients who identify as Aboriginal and/or Torres Strait Islander (n= 1), and a not-for-profit charity providing a peer-support program in the ED (n= 1).

Twelve Aotearoa EDs and 32 Australian EDs provided feedback on other activities or initiatives that focus on cultural safety for Indigenous patients and carers in their ED. The activities varied across EDs in Australia, with some common initiatives including having compulsory cultural safety staff training (n= 22), having designated staff or a special referral process to reduce 'Did not wait' incidents (n= 9), displaying Aboriginal artwork/ posters in patient waiting areas (n= 7) or other culturally appropriate signage (n= 5). In the space of Aotearoa EDs, the establishment of the Manaaki Mana group/ role/ program was among the most common initiatives (n= 5).

### 4.4 Culturally and Linguistically Diverse (CALD) and other diverse patients

#### 4.4.1 *Interpreter services*

All Aotearoa EDs (100%) and almost all Australian EDs (98.4%) had interpreter services available in the ED. Of these, 132 (91.6%) reported that this service was available 24 hours per day.

Sites were asked how the COVID-19 pandemic affected interpreter services. Table 19 presents the proportion of in-person, over the phone and video interpreter services available in EDs by region, and Table 20 by hospital peer group. In New South Wales (NSW) and ACT, all in-person interpreter services ceased during the COVID-19 pandemic and decreased in all other regions. The proportion of EDs that provided video interpreter services either increased or remained consistent during the COVID-19 pandemic compared to before the COVID-19 pandemic.

***Table 19 Percentage of EDs that reported having Interpreter services available in their ED and the mode of availability before and during the COVID pandemic, by region.***

| | Have access to interpreter services | | In-person | | Over the phone | | Via video service | |
|---|---|---|---|---|---|---|---|---|
| | | | Pre-COVID Pandemic | During the COVID Pandemic | Pre-COVID Pandemic | During the COVID Pandemic | Pre-COVID Pandemic | During the COVID Pandemic |
| Region | n | % | % | % | % | % | % | % |
| Australia | 125 | 98.4% | 45.6% | 18.4% | 94.4% | 97.6% | 9.6% | 14.4% |
| *NSW* | 41 | 100.0% | 31.7% | 0.0% | 95.1% | 100.0% | 4.9% | 9.8% |
| *VIC* | 28 | 93.3% | 64.3% | 32.1% | 89.3% | 96.4% | 7.1% | 17.9% |
| *QLD* | 29 | 100.0% | 41.4% | 20.7% | 96.6% | 100.0% | 24.1% | 24.1% |
| *WA* | 12 | 100.0% | 41.7% | 25.0% | 91.7% | 83.3% | 8.3% | 8.3% |
| *SA* | 7 | 100.0% | 71.4% | 57.1% | 100.0% | 100.0% | 0.0% | 0.0% |
| *TAS* | 3 | 100.0% | 66.7% | 33.3% | 100.0% | 100.0% | 0.0% | 0.0% |
| *ACT* | 2 | 100.0% | 100.0% | 0.0% | 100.0% | 100.0% | 0.0% | 50.0% |
| *NT* | 3 | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% |
| Aotearoa | 19 | 100.0% | 68.4% | 47.4% | 89.5% | 94.7% | 5.3% | 21.1% |
| Total | 144 | 98.6% | 48.6% | 22.2% | 93.8% | 97.2% | 9.0% | 15.3% |

Note: Responses were not mutually exclusive. One ED did not provide an answer.

Interpreter services were available in Australian EDs across all peer groups and reported having access to the 24 hours interpreter services between 90.3% and 100% of the time. The exception being Private EDs, where interpreter services were available in nine (81.8%) of 11 EDs and available 24 hours per day in six (54.5%) EDs. In Aotearoa, a lower proportion of Regional EDs (83.3%, n= 10) than Metropolitan EDs (100%, n= 7) provided interpreter services 24 hours per day.

***Table 20 Percentage of EDs that reported having Interpreter services available in their ED and the mode of availability before and during the COVID pandemic, by hospital peer group.***

| | Have access to interpreter services | | In-person | | Over the phone | | Via video service | |
|---|---|---|---|---|---|---|---|---|
| | | | Pre-COVID Pandemic | During the COVID Pandemic | Pre-COVID Pandemic | During the COVID Pandemic | Pre-COVID Pandemic | During the COVID Pandemic |
| Hospital peer group | n | % | % | % | % | % | % | % |
| Australia | | | | | | | | |
| *Major* | 31 | 100.0% | 61.3% | 22.6% | 96.8% | 96.8% | 16.1% | 25.8% |
| *Large metropolitan* | 31 | 100.0% | 67.7% | 25.8% | 90.3% | 100.0% | 3.2% | 9.7% |
| *Medium metropolitan* | 16 | 100.0% | 43.8% | 18.8% | 93.8% | 93.8% | 12.5% | 18.8% |
| *Large regional* | 22 | 100.0% | 13.6% | 4.5% | 100.0% | 100.0% | 4.5% | 4.5% |
| *Small/medium regional* | 10 | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% |
| *Private* | 9 | 81.8% | 22.2% | 11.1% | 77.8% | 88.9% | 22.2% | 22.2% |
| *Specialist* | 6 | 100.0% | 83.3% | 50.0% | 100.0% | 100.0% | 16.7% | 16.7% |
| Aotearoa | | | | | | | | |
| *Metropolitan* | 7 | 100.0% | 100.0% | 71.4% | 71.4% | 100.0% | 14.3% | 28.6% |
| *Regional* | 12 | 100.0% | 50.0% | 33.3% | 100.0% | 91.7% | 0.0% | 16.7% |
| Total | 144 | 98.6% | 48.6% | 22.2% | 93.8% | 97.2% | 9.0% | 15.3% |

Note: Responses were not mutually exclusive. One ED did not provide an answer.

Sites were asked to comment on the barriers to the use of interpreter services prior to the COVID pandemic, with 78 providing comments. The barriers reported included the limited availability of in-person or phone interpreter services (n= 30), limited language options (n= 20), patient's ability to hear or use a phone (n= 13), prolonged waiting times and service delays (n= 12), lack of onsite infrastructure (such as the ability to conference call or portability; n= 4), low awareness about the availability of interpreter service (n=

2) and the expense of services (n= 2). Four sites stated that interpreter services were rarely needed, and 14 others reported there were no barriers.

Eighty-nine sites commented on the impact the COVID pandemic had on the availability of interpreter services in their ED. Most EDs reported the pandemic had no impact on interpreter services (n= 48) considering that often the services were already provided over-the-phone. The most commonly raised negative impact was that the services were shifted to exclusively over-the-phone with the lack of in-person services (n= 22), followed by reduced service availability in language specific option (n= 9), and that the use of personal protective equipment has obstructed telephone use or causing difficulty with sign language interpreter services (n= 9). Four EDs reported increased interpreter service use, whereas one reported a decrease in service demand due to the COVID pandemic. Four EDs reported that video interpreter services improved the overall service.

### 4.4.2 *Support workers for CALD and other diverse patients and carers*

Over half of Aotearoa EDs (57.9%) reported having access to additional support workers (e.g., Cultural Liaison Officers, Waiting Room volunteers, Pastoral care) who operate in the ED or waiting room for CALD and other diverse patients and carers (Table 21). In contrast, a smaller proportion (44.1%) of Australian EDs reported having access to support workers, with the percentages varying across EDs in different regions.

***Table 21 Number and percentage of EDs that reported having support workers for CALD and other diverse patients and carers, by region.***

| Region | n | % |
|---|---|---|
| Australia | 56 | 44.1% |
| *NSW* | 22 | 52.4% |
| *VIC* | 11 | 36.7% |
| *QLD* | 10 | 34.5% |
| *WA* | 6 | 54.5% |
| *SA* | 4 | 57.1% |
| *TAS* | 1 | 33.3% |
| *ACT* | 0 | 0.0% |
| *NT* | 2 | 66.7% |
| Aotearoa | 11 | 57.9% |
| Total | 67 | 45.9% |

Note: one ED did not provide an answer.

The smallest proportion of Regional EDs in Australia among all hospital peer groups reported having access to support workers for CALD and other diverse patients and carers. An opposing trend was seen in Aotearoa EDs, where a slightly larger proportion of Regional EDs than Metropolitan EDs reported having this role.

***Table 22 Number and percentage of EDs that reported having support workers for CALD and other diverse patients and carers, by hospital peer group.***

| Hospital peer group | n | % |
|---|---|---|
| Australia | | |
| *Major* | 18 | 60.0% |
| *Large metropolitan* | 19 | 61.3% |
| *Medium metropolitan* | 4 | 25.0% |
| *Large regional* | 4 | 17.4% |
| *Small/medium regional* | 2 | 20.0% |
| *Private* | 5 | 45.5% |
| *Specialist* | 4 | 66.7% |
| Aotearoa | | |
| *Metropolitan* | 4 | 57.1% |
| *Regional* | 7 | 58.3% |

Note: one ED did not provide an answer

Of 67 sites that reported having access to support workers for CALD and other diverse patients, 54 Australian EDs and 10 Aotearoa EDs provided responses when they were asked to describe the role(s) and how they operated in the ED. In Australia, pastoral care worker was the most commonly reported role (n= 24), followed by ED/ waiting room volunteer (n= 19), patient experience officer (n= 12), cultural liaison officer (n= 10), peer support worker (n= 5), chaplain or religious support worker (n= 5), ED concierge/ customer service worker (n= 5), social worker (n= 3), and other support worker (n= 3). The majority of them reported that the role operated onsite in the ED or waiting room (n= 37), followed by off-site/ on-call (n= 14) or onsite in the hospital but not in the ED (n= 2). Some reported the role(s) were only available during the day (n= 11), whilst a few other EDs reported a 24-hour service (n= 3). In Aotearoa, ED volunteers, including the "Friends of ED" program, were the most common role (n= 8), followed by cultural support worker (n= 2), religious support worker (n= 2) and pastoral care worker (n= 1). The majority (n= 9) reported the roles operated onsite, rather than on-call (n= 2). Nine of 10 responding EDs additionally commented the COVID pandemic had an impact on CALD support worker services, despite this not being specified in the question.

Twenty-four EDs provided descriptions of other activities or initiatives in the ED that focus on cultural safety for CALD and other diverse patients and carers. Introducing cultural competency training (n= 6) and poster/ patient information or signage in multiple languages (n= 6) were the most common themes, followed by having cultural liaison staff or cultural safety champions in the ED (n= 3). Other feedback included the online CALD tool, having a patient wellbeing officer in the waiting room, or special exemption for carers supporting CALD patients in ED to facilitate patient assessment despite the ED visitor restrictions during the COVID pandemic.

## 4.5 ED Staffing

This section presents the ED staffing data (at the time of reporting), including the full-time equivalent (FTE) of specific ED roles and roster data, with comparisons by region and hospital peer group.

### 4.5.1 *ED Staffing Profiles*

The average FTE for various ED staff roles is presented by region for medical doctors, nursing staff and administrative staff, in Table 23, Table 24 and Table 25, respectively.

The overall average FTE of EM Specialists (14.0) was relatively stable compared with the findings from the 2020 Census (13.6 FTE). The average FTE of FACEM Advanced trainees was slightly lower than that in the 2020 Census (8.1 compared to 8.7). However, there was a more noticeable decrease in the average FTE of Other Specialists (1.5), FACEM Provisional trainees (4.2) and medical officers (8.3) in comparison to the findings from the 2020 Census (2.4 FTE, 5.6 FTE and 9.5 FTE, respectively). The increase in the average FTE of non-ACEM registrars (5.7 to 6.7) reported between the 2019 and 2020 Census was not observed, instead the average FTE decreased to 4.4 in 2021.

*Table 23 Average FTE for medical doctor staff in Australian and Aotearoa 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 | 14.0 | 1.5 | 8.4 | 4.4 | 8.8 | 4.6 | 13.5 |
| | (<1 – 43.1) | (<1 – 11.0) | (<1 – 44.8) | (<1 – 21.0) | (<1 – 54.0) | (<1 – 31.0) | (<1 – 68.0) |
| *NSW* | 11.0 | 1.3 | 8.4 | 5.0 | 9.6 | 3.8 | 10.6 |
| | (<1 – 25.1) | (<1 – 11.0) | (<1 – 44.8) | (<1 - 21.0) | (<1 - 30.0) | (<1 - 31.0) | (<1 - 36.0) |
| *VIC* | 15.1 | 1.5 | 8.1 | 3.7 | 4.7 | 5.0 | 13.8 |
| | (2.5 – 36.0) | (<1 – 7.0) | (<1 – 28.5) | (<1 – 12.3) | (<1 - 23.0) | (<1 – 15.0) | (<1 - 39.0) |
| *QLD* | 15.6 | 1.8 | 9.4 | 5.0 | 13.0 | 4.2 | 12.2 |
| | (<1 – 43.1) | (<1 – 8.0) | (1 - 29.0) | (<1 – 12.3) | (<1 - 54.0) | (<1 – 20.5) | (<1 - 45.0) |
| *WA* | 16.3 | 1.9 | 8.1 | 4.0 | 2.6 | 8.0 | 23.8 |
| | (5.0 – 29.1) | (<1 – 4.9) | (<1 - 28.0) | (<1 - 10.0) | (<1 - 13.0) | (<1 – 19.5) | (<1 - 68.0) |
| *SA* | 17.7 | 2.4 | 5.7 | 2.1 | 13.8 | 3.2 | 15.1 |
| | (6.0 – 32.6) | (<1 – 9.3) | (<1 – 17.3) | (<1 - 5.0) | (1 – 28.8) | (<1 – 8.8) | (1 - 41.0) |
| *TAS* | 9.7 | 1.1 | 7.7 | 3.3 | * | 6.8 | 20.3 |
| | (1.0 – 20.5) | (<1 – 1.5) | (1 – 15.1) | (1.5 – 5.3) | | (<1 - 10.0) | (10 - 30.0) |
| *ACT* | 16.0 | 1.6 | 10.6 | 2.8 | 17.2 | 5.9 | 21.3 |
| | (9.0 – 23.0) | (1.3 – 2.0) | (4 – 17.3) | (2.5 - 3.0) | (17 – 17.3) | (1.5 – 10.3) | (18 – 24.5) |
| *NT* | 13.5 | 0.1 | 9.9 | 3.7 | 15.2 | 4.0 | 6.3 |
| | (6.8 – 23.7) | | (6 – 12.8) | (1 - 7.0) | (7.5 - 25.0) | (2 - 7.0) | (1 - 11.0) |
| Aotearoa | 13.7 | 2.6 | 5.7 | 3.1 | 4.8 | 3.0 | 5.3 |
| | (5.2 – 25.5) | (<1 – 12.0) | (<1 – 23.0) | (<1 - 7.0) | (<1 - 13.0) | (<1 - 16.0) | (<1 - 18.0) |
| Total | 14.0 | 1.7 | 8.1 | 4.2 | 8.3 | 4.4 | 12.4 |
| | (<1 – 43.1) | (<1 – 12.0) | (<1 – 44.8) | (<1 - 21.0) | (<1 - 54.0) | (<1 - 31.0) | (<1 - 68.0) |

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

With respect to nursing staff FTE, despite an increase in the average total nursing staff FTE (90.6 to 100.1) comparing between 2020 and 2021 Census findings, the average FTE of mental health nurses has decreased significantly from 5.2 FTE to 2.1 FTE in 2021.

***Table 24 Average FTE for nursing staff in Australian and Aotearoa 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 | 3.6 | 2.2 | 2.3 | 2.0 | 102.5 |
| | (<1 – 29.6) | (1.0 – 11.7) | (<1 – 34.0) | (<1 – 12.0) | (14.0 – 323.0) |
| *NSW* | 3.7 | 4.0 | 2.1 | 2.1 | 80.8 |
| | (<1 – 21.5) | (1.0 – 11.7) | (<1 – 34.0) | (<1 – 12.0) | (18.5 – 153.5) |
| *VIC* | 3.3 | 1.3 | 3.0 | 2.5 | 111.0 |
| | (<1 – 29.6) | (1.0 – 4.0) | (<1 – 16.0) | (<1 – 7.5) | (14.0 – 255.0) |
| *QLD* | 3.8 | 1.3 | 1.4 | 1.6 | 110.9 |
| | (<1 – 12.0) | (1.0 – 4.0) | (<1 – 18.0) | (<1 – 5.0) | (19.6 – 323.0) |
| *WA* | 2.7 | 1.3 | 4.3 | 2.0 | 107.2 |
| | (<1 – 4.9) | (1.0 – 3.8) | (<1 – 16.8) | (<1 – 5.0) | (34.0 – 204.0) |
| *SA* | 5.0 | 2.1 | 3.2 | 1.5 | 133.0 |
| | (2.2 – 8.2) | (1.0 – 4.5) | (<1 – 6.3) | (<1 – 2.5) | (78.3 – 206.2) |
| *TAS* | 3.0 | 1.0 | 0 | 2.0 | 135.0 |
| | (<1 – 6.0) | | | (1.0 – 3.0) | (54.8 – 200.0) |
| *ACT* | 3.0 | 1.0 | 0 | 3.6 | 138.5 |
| | (1.0 – 5.0) | | | (3.2 – 4.0) | (90.0 – 186.9) |
| *NT* | 5.7 | 1.3 | <1 | 1.3 | 97.4 |
| | (<1 – 15.5) | (1.0 – 2.0) | (<1 – 2.0) | (1.0 – 2.0) | (60.4 – 147.9) |
| Aotearoa | 4.5 | 1.9 | 1.1 | 1.6 | 83.8 |
| | (<1 – 14.9) | (1.0 – 6.0) | (<1 – 9.8) | (<1 – 5.0) | (17.4 – 380.0) |
| Total | 3.7 | 2.2 | 2.1 | 2.0 | 100.1 |
| | (<1 – 29.6) | (1.0 – 11.7) | (<1 – 34.0) | (<1 – 12.0) | (14.0 – 380.0) |

Note: Where no range is provided there is no variation from the mean. One ED did not provide nursing staff data. Nurse Practitioners include Clinical Nurse Consultant/ Specialist).

A total of 118 Australian EDs and 18 Aotearoa EDs reported having an ED ward receptionist, consistent with the 2020 Census findings. For the EDs reporting employing EM Specialist secretarial or ED administrative assistant(s), the average FTE was 1.9 and comparable across regions.

***Table 25 Average FTE of ED ward receptionist or clerk(s) and EM Specialist secretarial or ED administrative assistant(s), by region.***

| | ED ward receptionist/ clerk | | | EM Specialist secretarial/ ED administrative assistant | | |
|---|---|---|---|---|---|---|
| Region | n | mean | (range) | n | mean | (range) |
| Australia | 118 | 13.7 | (<1 – 35.6) | 115 | 2.1 | (<1 – 30.0) |
| *NSW* | 39 | 11.8 | (1.0 – 26.0) | 37 | 1.5 | (<1 – 4.4) |
| *VIC* | 26 | 14.5 | (<1 – 35.6) | 25 | 2.7 | (<1 – 30.0) |
| *QLD* | 28 | 15.0 | (1.0 – 34.1) | 28 | 2.6 | (<1 - 19.0) |
| *WA* | 10 | 16.0 | (<1 – 25.4) | 7 | 1.7 | (1.0 – 2.8) |
| *SA* | 7 | 13.2 | (1.0 – 33.0) | 11 | 1.6 | (<1 – 4.9) |
| *TAS* | 3 | 12.0 | (5.0 – 21.0) | 3 | 1.3 | (<1 - 2.0) |
| *ACT* | 2 | 21.0 | (8.0 – 34.0) | 2 | 2.6 | (1.0 - 4.2) |
| *NT* | 3 | 10.3 | (6.0 – 17.0) | 2 | 1.5 | (1.0 – 2.0) |
| Aotearoa | 18 | 15.7 | (5.0 – 60.0) | 16 | 1.0 | (<1 – 2.4) |
| Total | 136 | 14.0 | (<1 – 60.0) | 131 | 1.9 | (<1 – 30.0) |

Table 26 presents the average FTE for ED medical doctor staff, Table 27 presents the FTE for nursing staff, and Table 28 presents the FTE for ED administrative staff, by hospital peer group. Similar to the findings from the 2020 Census, Major hospital EDs had the highest average FTE for EM Specialists (FACEMs and Paediatric EM Specialists; 21.4 FTE in 2020 and 22.5 FTE in 2021), FACEM Advanced trainees (18.3 FTE in 2020 and 18.5 FTE in 2021) and Provisional trainees (9.1 FTE in 2020 and 7.7 FTE in 2021), medical officers (16.0 FTE in 2020 and 11.7 FTE in 2021) and junior medical officers/ interns (21.3 FTE in 2020 and 22.7 FTE in 2021), compared with EDs in other peer groups in Australia. Private EDs generally had the lowest average FTE for all categories of medical doctor staff, except for the EM Specialists role, which was slightly higher than that in the Small/medium regional EDs (6.8 FTE compared to 5.3 FTE), and Other Specialists FTE which Private EDs had one of the highest averages. In Aotearoa, Metropolitan EDs consistently reported a higher average FTE for each medical doctor role except for non-ACEM registrar, which Regional EDs reported a higher average FTE and JMOs/interns where the average FTE were comparable.

***Table 26 Average FTE for medical doctor staff in Australian and Aotearoa 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* | 22.5 | 0.7 | 18.5 | 7.7 | 11.7 | 4.4 | 22.7 |
| | (9.0 – 43.1) | (<1 - 3.0) | (<1 - 44.8) | (<1 - 21.0) | (<1 - 54.0) | (<1 - 11.1) | (7.0 - 68.0) |
| *Large metropolitan* | 16.1 | 1.8 | 8.1 | 5.7 | 10.6 | 5.9 | 16.2 |
| | (<1 – 28.8) | (<1 – 11.0) | (<1 - 28.0) | (1.0 - 12.3) | (<1 - 30.0) | (<1 - 31.0) | (4.0 - 39.0) |
| *Medium metropolitan* | 9.7 | 1.6 | 3.6 | 2.3 | 11.6 | 2.4 | 8.4 |
| | (2.3 - 27.0) | (<1 - 9.3) | (<1 - 12.3) | (<1 - 12.0) | (<1 - 24.5) | (<1 - 15.0) | (<1 - 25.0) |
| *Large regional* | 9.6 | 2.0 | 4.3 | 3.4 | 4.5 | 5.6 | 12.6 |
| | (1.0 - 22.5) | (<1 - 7.0) | (<1 - 12.0) | (<1 - 8.0) | (<1 - 18.0) | (<1 - 20.5) | (3.0 - 45.0) |
| *Small/medium regional* | 5.3 | 2.4 | 1.6 | 2.2 | 8.4 | 2.2 | 4.3 |
| | (<1 - 8.3) | (<1 - 5.8) | (<1 - 6.0) | (<1 - 7.0) | (<1 - 34.0) | (<1 - 9.2) | (<1 - 12.0) |
| *Private* | 6.8 | 2.1 | 2.0 | <1 | 3.0 | <1 | n.d. |
| | (<1 – 15.8) | (<1 - 8.0) | (<1 - 6.0) | | (<1 - 6.0) | (<1 - 10.0) | |
| *Specialist* | 15.1 | 0.9 | 10.6 | <1 | 4.8 | 12.3 | 9.2 |
| | (8.0 - 25.5) | (<1 - 3.0) | (4.0 - 23.0) | (<1 - 1.0) | (<1 - 12.0) | (<1 - 19.5) | (<1 - 30.0) |
| Aotearoa | | | | | | | |
| *Metropolitan* | 18.4 | 3.0 | 9.7 | 5.2 | 7.1 | 1.9 | 5.1 |
| | (8.3 – 25.5) | (<1 - 12.0) | (2.0 - 23.0) | (2.0 - 7.0) | (<1 - 8) | (<1 - 5.0) | (<1 - 18.0) |
| *Regional* | 11.0 | 2.3 | 3.3 | 3.3 | 3.5 | 3.7 | 5.3 |
| | (5.2 - 20.4) | (<1 - 5.5) | (<1 - 10.0) | (<1 - 7.0) | (<1 - 11) | (<1 - 16.0) | (<1 - 15.0) |

Note: 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. AT = Advanced trainee. PT = Provisional trainee. Medical Officers include CMOs; SMOs; SRMOs; SHOs and MOs (NZ EDs).

Consistent with the 2020 Census findings, Private and Small/medium regional EDs in Australia and Regional EDs in Aotearoa had the lowest total nursing FTE compared to all other hospital peer groups. Additionally, the FTE of mental health nurses decreased across all hospital peer groups compared to the 2020 Census.

***Table 27 Average FTE for nursing staff in Australian and Aotearoa EDs, by hospital peer group.***

| Hospital peer group | Nurse Practitioners mean (range) | Nurse Unit Mangers mean (range) | Mental Health Nurses mean (range) | Nurse Educators mean (range) | Total Nursing mean (range) |
|---|---|---|---|---|---|
| Australia | | | | | |
| *Major* | 6.4 | 2.9 | 3.0 | 2.6 | 154.3 |
| | (<1 - 29.6) | (1.0 - 11.7) | (<1 - 34.0) | (<1 - 5.2) | (65.0 - 323.0) |
| *Large metropolitan* | 3.4 | 2.4 | 4.1 | 2.9 | 117.7 |
| | (<1 - 7.5) | (1.0 - 9.0) | (<1 - 18.0) | (<1 - 12.0) | (60.4 - 246.0) |
| *Medium metropolitan* | 2.6 | 1.8 | 0.9 | 1.4 | 77.9 |
| | (<1 - 9.0) | (1.0 - 5.8) | (<1 - 6.3) | (<1 - 3.1) | (33.0 - 194.0) |
| *Large regional* | 2.6 | 2.3 | 1.5 | 1.4 | 86.9 |
| | (<1 - 11.4) | (1.0 - 6.4) | (<1 - 16.0) | (1.0 - 4.0) | (20.0 - 255.0) |
| *Small/medium regional* | 1.7 | 1.2 | 0.4 | 0.9 | 41.7 |
| | (<1 - 5.0) | (1.0 - 2.0) | (<1 - 2.8) | (<1 - 3.0) | (18.5 - 64.8) |
| *Private* | 1.1 | 1.0 | 0.0 | 0.9 | 32.2 |
| | (<1 - 9.2) | | (<1 - 0.2) | (<1 - 1.2) | (14.0 - 50.0) |
| *Specialist* | 4.5 | 2.6 | 2.3 | 2.4 | 102.1 |
| | (1.5 - 11.5) | (1.0 - 4.0) | (<1 - 6.1) | (<1 - 4.0) | (56.4 - 124.9) |
| Aotearoa | | | | | |
| *Metropolitan* | 8.0 | 1.7 | 2.5 | 2.1 | 138.8 |
| | (3.3 - 14.9) | (1.0 - 6.0) | (<1 - 9.8) | (1.0 - 3.3) | (53.3 - 380.0) |
| *Regional* | 2.5 | 2.0 | 0.3 | 1.4 | 51.8 |
| | (<1 - 5.0) | (1.0 - 6.0) | (<1 - 1.6) | (<1 - 5.0) | (17.4 - 88.0) |

Note: Where no range is provided, there is no variation from the mean. One ED did not provide nursing staff data. Nurse Practitioners include Clinical Nurse Consultant/ Specialist).

In Australia, Small/ medium regional EDs had the smallest FTE of both ED ward receptionist or clerk and EM Specialist secretarial or ED administrative assistant roles. Similarly, Regional EDs in Aotearoa reported a lower FTE for ED ward receptionist or clerk and EM Specialist secretarial or ED administrative assistant roles compared to Metropolitan EDs.

***Table 28 Average FTE of ED ward receptionist or clerk(s) and EM Specialist secretarial or ED administrative assistant(s), 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* | 28 | 22.6 | (6.2 – 35.6) | 31 | 2.4 | (1.0 – 19.0) |
| *Large metropolitan* | 28 | 14.0 | (1.0 – 31.0) | 30 | 1.5 | (<1 – 4.0) |
| *Medium metropolitan* | 16 | 12.0 | (6.0 – 23.6) | 14 | 1.3 | (<1 – 6.0) |
| *Large regional* | 22 | 9.4 | (1.0 – 22.3) | 19 | 1.7 | (<1 – 3.5) |
| *Small/medium regional* | 8 | 4.6 | (<1 – 8.0) | 5 | 1.2 | (<1 – 2.5) |
| *Private* | 10 | 6.8 | (<1 – 12.3) | 10 | 4.0 | (<1 – 30.0) |
| *Specialist* | 6 | 14.2 | (7.7 – 20.3) | 6 | 3.3 | (1.0 – 9.8) |
| Aotearoa | | | | | | |
| *Metropolitan* | 6 | 27.9 | (11.3 – 60.0) | 7 | 1.1 | (<1 – 2.4) |
| *Regional* | 12 | 9.6 | (5.0 – 22.7) | 9 | 0.9 | (<1 – 2.0) |

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

Table 29 displays the ratio of EM Specialist FTE to FACEM trainee FTE, and the ratios of various ED staff to ED attendance by region; Table 30 shows this data by hospital peer group. 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.

On average, Australian EDs reported one EM Specialist FTE to 0.9 FACEM trainee FTE and Aotearoa EDs reported one EM Specialist FTE to 0.6 FACEM trainee FTE, consistent with the findings from the 2020 Census. On the other hand, the number of attendances per ED staff increased in the 2021 Census, for all categories of ED staff, except for nursing staff, which remained relatively consistent with the 2020 Census.

Consistent with the 2019 and 2020 Census, the NT has one of the lowest ratios of EM Specialists to FACEM trainees with a ratio of one EM Specialist FTE to 1.3 trainee FTE. TAS reported the lowest number of EM Specialists to trainees at one EM Specialist FTE to 3.8 FTE, significantly increasing from one EM Specialist FTE to 0.8 trainee FTE in 2020. However, this should be interpreted cautiously, considering an exceptionally high percentage of unfilled EM Specialist vacancies in one of three EDs in TAS. Similarly, TAS had the lowest number of EM Specialists FTE per attendances (one FTE : 17,327 attendances) compared with other regions, increasing significantly from one FTE to 4,490 attendances in the 2020 Census.

Four EDs had a ratio of one EM Specialist FTE to greater than 10,000 annual attendances, which has decreased from seven EDs as reported in the 2020 Census. The ratio of EM Specialists to attendances remained high in NSW (one EM Specialist FTE to 5,563 attendances in 2020 and one FTE to 5,828 in 2021). In contrast, the NT had the lowest number of EM Specialists FTE per attendances at a ratio of one FTE to 4,006 attendances, improving slightly from one FTE to 4,145 attendances in the 2020 Census.

The lowest number FACEM trainee FTE to attendances was observed in NSW (one trainee FTE : 12,660 attendances), remaining high from the 2020 Census (one trainee FTE : 10,807 attendances). QLD was the only region which saw an improvement in the ratio of trainee FTE per attendances compared to the 2020 Census (one trainee FTE : 8,637 attendances in 2020, one trainee FTE : 7,077 attendances in 2021). The ratio for Aotearoa EDs remained relatively consistent in 2021 (one trainee FTE : 7,965 attendances), compared to the 2020 Census (one trainee FTE : 7,572 attendances).

***Table 29 Ratio of EM Specialist FTE to trainee FTE, and the ratios of various ED staffing FTE to ED attendance, by region.***

| Region | EM Specialists: FACEM Trainee | EM Specialists: Attendance | FACEM Trainee: Attendance | Senior Medical Staff: Attendance | All Medical Staff: Attendance | Nursing Staff: Attendance |
|---|---|---|---|---|---|---|
| Australia | 1 : 0.9 | 1 : 5019 | 1 : 9807 | 1 : 1566 | 1 : 1159 | 1 : 622 |
| *NSW* | 1 : 1.1 | 1 : 5828 | 1 : 12660 | 1 : 1677 | 1 : 1314 | 1 : 736 |
| *VIC* | 1 : 0.7 | 1 : 4169 | 1 : 9776 | 1 : 1614 | 1 : 1070 | 1 : 535 |
| *QLD* | 1 : 0.8 | 1 : 4071 | 1 : 7077 | 1 : 1365 | 1 : 1111 | 1 : 600 |
| *WA* | 1 : 0.7 | 1 : 4303 | 1 : 9681 | 1 : 1592 | 1 : 1109 | 1 : 661 |
| *SA* | 1 : 0.5 | 1 : 4106 | 1 : 9222 | 1 : 1557 | 1 : 1076 | 1 : 481 |
| *TAS* | 1 : 3.8 | 1 : 17327 | 1 : 6529 | 1 : 1939 | 1 : 1055 | 1 : 411 |
| *ACT* | 1 : 0.8 | 1 : 5378 | 1 : 6945 | 1 : 1485 | 1 : 1042 | 1 : 585 |
| *NT* | 1 : 1.3 | 1 : 4006 | 1 : 3416 | 1 : 1060 | 1 : 915 | 1 : 502 |
| Aotearoa | 1 : 0.6 | 1 : 4098 | 1 : 7965 | 1 : 1763 | 1 : 1423 | 1 : 787 |
| Total | 1 : 0.9 | 1 : 4897 | 1 : 9578 | 1 : 1591 | 1 : 1193 | 1 : 644 |

Note: EM Specialist = FACEMs and Paediatric EM Specialists. FACEM Trainee = ACEM Advanced and Provisional trainees.

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 30. Consistent with 2020 findings, Private EDs in Australia had the highest number of EM Specialist FTE to FACEM trainee FTE compared to other peer groups. The ratio of EM Specialist FTE to attendances remained consistent for all peer groups in Australian EDs, except for the Large regional EDs (one FTE : 5,547 attendances in the 2020 Census, increasing to one FTE : 7,991). While a higher number of attendances per FACEM trainee FTE was seen across all peer groups, except for the

Small/ medium regional EDs (one FTE: 20,667 attendances in the 2020 Census, decreasing to one FTE: 16,737).

Regional hospitals in Aotearoa reported lower ED staff FTE per patient attendances in all categories of staffing, compared to Metropolitan EDs. Regional EDs in Aotearoa had a higher number of EM Specialist FTE to FACEM trainee FTE compared to Metropolitan EDs, consistent with the 2020 Census.

***Table 30 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: FACEM Trainee | EM Specialists: Attendance | FACEM Trainee: Attendance | Senior Medical Staff: Attendance | All Medical Staff: Attendance | Nursing Staff: Attendance |
|---|---|---|---|---|---|---|
| Australia | | | | | | |
| *Major* | 1 : 1.3 | 1 : 3774 | 1 : 3390 | 1 : 1276 | 1 : 922 | 1 : 536 |
| *Large metropolitan* | 1 : 0.8 | 1 : 4307 | 1 : 6398 | 1 : 1481 | 1 : 1062 | 1 : 595 |
| *Medium metropolitan* | 1 : 0.7 | 1 : 5822 | 1 : 18529 | 1 : 1551 | 1 : 1168 | 1 : 640 |
| *Large regional* | 1 : 1.3 | 1 : 7991 | 1 : 11119 | 1 : 1969 | 1 : 1193 | 1 : 651 |
| *Small/medium regional* | 1 : 0.7 | 1 : 5466 | 1 : 16737 | 1 : 2015 | 1 : 1736 | 1 : 871 |
| *Private* | 1 : 0.3 | 1 : 2988 | 1 : 16590 | 1 : 1484 | 1 : 1484 | 1 : 669 |
| *Specialist* | 1 : 0.7 | 1 : 4184 | 1 : 7230 | 1 : 1392 | 1 : 1172 | 1 : 595 |
| Aotearoa | | | | | | |
| *Metropolitan* | 1 : 0.8 | 1 : 3779 | 1 : 5295 | 1 : 1562 | 1 : 1386 | 1 : 632 |
| *Regional* | 1 : 0.5 | 1 : 4284 | 1 : 9664 | 1 : 1880 | 1 : 1445 | 1 : 877 |

Note: EM Specialist = FACEMs and Paediatric EM Specialists. FACEM Trainee = ACEM Advanced and Provisional FACEM trainees.

### 4.5.3 *FACEM FTE to FACEM head count*

This section presents the ratios of FACEM FTE to FACEM head count by region (Table 31) and hospital peer group (Table 32). There were on average 1.7 FACEMs (head count) working to cover 1.0 FTE across Australia and 1.2 FACEMs covering 1.0 FTE in Aotearoa. VIC and SA had the highest number of FACEMs (headcount; two) covering one FTE.

***Table 31 FACEM FTE to head count, by region.***

| Region | FACEM FTE: Head Count |
|---|---|
| Australia | 1 : 1.7 |
| *NSW* | 1 : 1.6 |
| *VIC* | 1 : 2.0 |
| *QLD* | 1 : 1.6 |
| *WA* | 1 : 1.6 |
| *SA* | 1 : 2.0 |
| *TAS* | 1 : 1.5 |
| *ACT* | 1 : 1.4 |
| *NT* | 1 : 1.2 |
| Aotearoa | 1 : 1.2 |
| Total | 1 : 1.7 |

Private and Medium metropolitan EDs in Australia had consistently higher number of FACEMs (head count) to cover 1.0 FTE, compared to other peer groups. Regional and Metropolitan EDs in Aotearoa had a comparable number of FACEMs (head count) to cover 1.0 FTE, which was lower compared with all peer groups in the Australian EDs.

*Table 32 FACEM FTE to head count, by hospital peer group.*

| Hospital peer group | FACEM FTE: Head Count |
|---|---|
| Australia | |
| *Major* | 1 : 1.6 |
| *Large metropolitan* | 1 : 1.5 |
| *Medium metropolitan* | 1 : 2.2 |
| *Large regional* | 1 : 1.5 |
| *Small/medium regional* | 1 : 1.8 |
| *Private* | 1 : 2.4 |
| *Specialist* | 1 : 1.5 |
| Aotearoa | |
| *Metropolitan* | 1 : 1.3 |
| *Regional* | 1 : 1.2 |

### 4.5.4 *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. The mean and range of EMC and EMD are presented by region in Table 33 and by hospital peer group in Table 34. A total of 75 EDs reported having EMC and/or EMD graduates employed in the 2021 Census, decreasing from previous years' Census (2019: 78, 2020: 89). Consistent with the 2020 Census findings, for the EDs reporting employing EMC or EMD graduates, the average number employed was small and varied little across regions at, an average, between <1 - 5 for EMC graduates and between <1 - 3 for EMD graduates.

*Table 33 Average FTE for EMC and EMD graduates, by region.*

| | EM Certificants | | | EM Diplomates | | | EM Certificants and/ or EM Diplomates | |
|---|---|---|---|---|---|---|---|---|
| Region | n* | mean | (range) | n* | mean | (range) | n | % |
| Australia | 51 | 1.7 | (0.3 – 5.0) | 36 | 1.2 | (0.1 – 3.0) | 69 | 60.8% |
| *NSW* | 17 | 1.5 | (0.3 – 5.0) | 11 | 1.5 | (0.5 – 3.0) | 22 | 52.4% |
| *VIC* | 9 | 2.6 | (0.3 – 5.0) | 10 | 0.9 | (0.5 – 2.0) | 16 | 53.3% |
| *QLD* | 11 | 2.0 | (0.5 – 5.0) | 5 | 1.1 | (0.5 – 2.0) | 12 | 41.4% |
| *WA* | 5 | 1.9 | (1.0 – 2.5) | 5 | 1.2 | (0.5 – 1.5) | 7 | 58.3% |
| *SA* | 4 | 2.5 | (1.0 – 5.0) | 4 | 1.4 | (0.5 – 2.0) | 5 | 71.4% |
| *TAS* | 1 | 2.0 | | 1 | 0.1 | | 3 | 100.0% |
| *ACT* | 2 | 0.6 | (0.3 – 1.0) | 1 | 1 | | 2 | 100.0% |
| *NT* | 2 | 0.6 | (0.3 – 2.0) | 0 | | | 2 | 66.7% |
| Aotearoa | 3 | 1.1 | (0.3 – 2.0) | 3 | 1 | | 6 | 31.6% |
| Total | 54 | 1.6 | (0.3 – 5.0) | 39 | 1.2 | (0.1 – 3.0) | 75 | 51.0% |

Note: Where no range is provided, $n \leq 1$. *Three EDs did not report FTE.

Similar to the 2020 Census, Specialist (16.7%) and Major (38.7%) EDs in Australia and Metropolitan (14.3%) EDs in Aotearoa were less likely to employ EMC or EMD graduates. Most of the Private (72.8%) EDs and Small/ medium regional (70.0%) EDs in Australia reported employing EMC and/or EMD graduates.

***Table 34 Average FTE for EMC and EMD graduates, 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* | 9 | 1.6 | (0.3 – 5.0) | 6 | 1.3 | (0.8 – 2.0) | 12 | 38.7% |
| *Large metropolitan* | 14 | 1.9 | (0.5 – 5.0) | 8 | 1.2 | (0.5 – 2.0) | 15 | 48.4% |
| *Medium metropolitan* | 5 | 2.0 | (0.5 – 3.8) | 5 | 1.5 | (1.0 – 2.0) | 7 | 43.8% |
| *Large regional* | 13 | 1.8 | (0.3 – 5.0) | 8 | 1.4 | (0.1 – 3.0) | 19 | 48.4% |
| *Small/medium regional* | 4 | 1.4 | (1.0 – 2.0) | 4 | 0.9 | (0.5 – 1.5) | 7 | 70.0% |
| *Private* | 6 | 2.5 | (0.5 – 5.0) | 5 | 0.7 | (0.5 – 1.0) | 8 | 72.8% |
| *Specialist* | 0 | | | 1 | 0.5 | | 1 | 16.7% |
| Aotearoa | | | | | | | | |
| *Metropolitan* | 1 | 0.3 | | 0 | | | 1 | 14.3% |
| *Regional* | 2 | 1.5 | (1.0 – 2.0) | 3 | 1.0 | | 5 | 41.7% |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. *Three EDs did not report FTE.

### 4.5.5 *EM Specialist and FACEM Trainee Vacancy Rates*

Fifty-eight (45.3%) EDs in Australia and nine (47.4%) EDs in Aotearoa reported FACEM or Paediatric EM (PEM) Specialist vacancies (i.e. funded but unfilled), increasing from 48 (36.9%) and two (10.5%), respectively, in the 2020 Census (Table 35). FACEM trainee vacancies also increased between 2020 and 2021, with 89 (69.5%) EDs in Australia and five (26.3%) in Aotearoa reporting FACEM trainee vacancies, increasing from 70 (53.8%) and four (21.1%), respectively.

A higher percentage of Australian EDs had unfilled FACEM or PEM FTE for six or more months (25.8%) than Aotearoa EDs (5.3%). Similarly, a higher percentage of Australian EDs reported unfilled FACEM trainee FTE for six of more months (39.0%) than Aotearoa EDs (15.8%). Almost all EDs that reported unfilled EM Specialist FTE reported trying to actively fill the vacancy. However, a smaller proportion of EDs reported actively trying to fill the FACEM trainee vacancies.

***Table 35 Percentage of EDs who reported having unfilled EM Specialists and FACEM trainee FTE, the percentage of those EDs with unfilled FTE for 6+ months; and the total unfilled FTE, by region.***

| | EM Specialists unfilled FTE | | | | | FACEM trainee unfilled FTE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Unfilled | Unfilled for 6+ months | Trying to fill | Total unfilled | Total unfilled for 6+ months | Unfilled | Unfilled for 6+ months | Trying to fill | Total unfilled | Total unfilled for 6+ months |
| Region | % | % | % | FTE | FTE | % | % | % | FTE | FTE |
| Australia | 45.3% | 25.8% | 39.8% | 144.3 | 83.9 | 69.5% | 39.0% | 55.5% | 423.7 | 263.1 |
| *NSW* | 47.6% | 33.3% | 33.3% | 50.6 | 42.0 | 81.0% | 50.0% | 69.0% | 193.2 | 135.5 |
| *VIC* | 50.0% | 23.3% | 46.7% | 41.9 | 16.2 | 80.0% | 46.7% | 63.3% | 84.7 | 54.2 |
| *QLD* | 17.2% | 3.4% | 17.2% | 6.5 | 1.0 | 44.8% | 17.2% | 31.0% | 71.8 | 34.0 |
| *WA* | 75.0% | 58.3% | 75.0% | 26.2 | 13.3 | 83.3% | 33.3% | 50.0% | 28.8 | 10.0 |
| *SA* | 57.1% | 14.3% | 57.1% | 5.1 | 1.6 | 57.1% | 42.9% | 57.1% | 27.0 | 24.0 |
| *TAS* | 66.7% | 66.7% | 66.7% | 6.9 | 6.9 | 100.0% | 33.3% | 100.0% | 11.3 | 5.5 |
| *ACT* | 50.0% | 0.0% | 50.0% | 2.0 | 0.0 | 50.0% | 0.0% | 50.0% | 7.0 | n/a |
| *NT* | 66.7% | 33.3% | 66.7% | 5.0 | 3.0 | 0.0% | n/a | n/a | n/a | n/a |
| Aotearoa | 47.4% | 5.3% | 47.4% | 15.2 | 2.0 | 26.3% | 15.8% | 21.1% | 14.0 | 9.0 |
| Total | 45.6% | 23.1% | 40.8% | 159.5 | 2.0 | 63.9% | 35.9% | 51.0% | 437.7 | 272.1 |

Note: EM Specialist = FACEMs and Paediatric EM Specialists. FACEM Trainee = ACEM Advanced and Provisional trainees.

The percentage of EDs with EM Specialist and FACEM trainee vacancies, reported as unfilled FTE, are displayed in Table 36 by hospital peer group. Large regional and Medium metropolitan EDs in Australia were more likely to report having unfilled EM Specialist FTE, compared to EDs in other peer groups. Whereas Large Regional and Large Metropolitan EDs reported the greatest number of unfilled FTE (51.9 and

33.5 FTE, respectively). Over 80% of Large and Medium metropolitan and Large regional EDs all reported FACEM trainee vacancies. Regional EDs in Aotearoa were more like to report having FACEM trainee vacancies, compared with Metropolitan EDs.

***Table 36 Percentage of EDs who reported having unfilled EM Specialist and FACEM trainee FTE; the percentage of those EDs with unfilled FTE for 6+ months, and the total unfilled FTE; by hospital peer group.***

| | EM Specialist unfilled FTE | | | | | FACEM trainee unfilled FTE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Unfilled | Unfilled for 6+ months | Trying to fill | Total unfilled | Total unfilled for 6+ months | Unfilled | Unfilled for 6+ months | Trying to fill | Total unfilled | Total unfilled for 6+ months |
| Hospital peer group | % | % | % | FTE | FTE | % | % | % | FTE | FTE |
| Australia | | | | | | | | | | |
| *Major* | 35.5% | 16.1% | 25.8% | 26.4 | 8.3 | 54.8% | 19.4% | 35.5% | 67.0 | 29.0 |
| *Large metropolitan* | 45.2% | 22.6% | 45.2% | 33.5 | 20.0 | 83.9% | 51.6% | 77.4% | 149.3 | 105.1 |
| *Medium metropolitan* | 62.5% | 37.5% | 56.3% | 13.9 | 6.2 | 81.3% | 56.3% | 62.5% | 50.5 | 28.5 |
| *Large regional* | 60.9% | 47.8% | 52.2% | 51.9 | 44.4 | 82.6% | 52.2% | 65.2% | 121.0 | 90.5 |
| *Small/medium regional* | 50.0% | 30.0% | 40.0% | 14.0 | 4.3 | 50.0% | 20.0% | 50.0% | 24.8 | 6.0 |
| *Private* | 27.3% | 9.1% | 27.3% | 2.7 | 0.8 | 72.7% | 27.3% | 54.5% | 8.0 | 4.0 |
| *Specialist* | 16.7% | 0.0% | 16.7% | 2.0 | 0.0 | 16.7% | 0.0% | 0.0% | 3.0 | 0.0 |
| Aotearoa | | | | | | | | | | |
| *Metropolitan* | 42.9% | 0.0% | 42.9% | 4.5 | 0.0 | 14.3% | 0.0% | 14.3% | 3.0 | 0.0 |
| *Regional* | 50.0% | 8.3% | 50.0% | 10.7 | 2.0 | 33.3% | 25.0% | 25.0% | 11.0 | 9.0 |

Note: EM Specialist = FACEMs and Paediatric EM Specialists. FACEM Trainee = ACEM Advanced and Provisional trainees.

Table 37 displays the average FACEM and PEM, and FACEM trainee unfilled FTE by region. In Australia, the average unfilled EM Specialist FTE remained consistent, ranging from 1.3 FTE in SA and QLD to 3.5 FTE in TAS. Aotearoa reported one of the lowest averages for unfilled FACEM and PEM FTE (1.7 FTE) across nine reporting EDs. The average unfilled FACEM trainee FTE was higher than unfilled EM Specialist FTE for EDs in each region. The NT was the only exception, where the two EDs reported no unfilled FACEM trainee FTE.

***Table 37 Average unfilled FTE and unfilled FTE for 6+ months of EM Specialists and FACEM trainees, by region.***

| | EM Specialist unfilled FTE | | | | FACEM trainee unfilled FTE | | | |
|---|---|---|---|---|---|---|---|---|
| | Unfilled | | Unfilled for 6+ months | | Unfilled | | Unfilled for 6+ months | |
| Region | n | mean (range) | n | mean (range) | n | mean (range) | n | mean (range) |
| Australia | 58 | 2.5 | 33 | 2.5 | 89 | 4.8 | 48 | 5.5 |
| | | (0.1 – 10.0) | | (0.3 - 10.0) | | (0.3 – 20.0) | | (1.0 – 18.0) |
| *NSW* | 20 | 2.5 | 14 | 3.0 | 34 | 5.7 | 21 | 6.5 |
| | | (0.1 – 10.0) | | (0.3 – 10.0) | | (0.5 – 20.0) | | (1.0 – 18.0) |
| *VIC* | 15 | 2.8 | 7 | 2.3 | 24 | 3.5 | 14 | 3.9 |
| | | (0.8 – 8.4) | | (0.4 – 5.0) | | (0.5 – 10.0) | | (1.0 – 10.0) |
| *QLD* | 5 | 1.3 | 1 | 1.0 | 13 | 5.5 | 5 | 6.8 |
| | | (0.3 – 4.5) | | | | (0.3 – 13.0) | | (4.0 – 11.0) |
| *WA* | 9 | 2.9 | 7 | 1.9 | 10 | 2.9 | 4 | 2.5 |
| | | (1.2 – 5.0) | | (1.2 – 3.0) | | (0.8 – 7.8) | | (1.0 – 4.0) |
| *SA* | 4 | 1.3 | 1 | 1.6 | 4 | 6.8 | 3 | 8.0 |
| | | (0.9 – 1.6) | | | | (3.0 – 15.0) | | (3.0 – 15.0) |
| *TAS* | 2 | 3.5 | 2 | 3.5 | 3 | 3.8 | 1 | 5.5 |
| | | (1.7 – 5.3) | | (1.7 – 5.3) | | (2.8 – 5.5) | | |
| *ACT* | 1 | 2.0 | 0 | | 1 | 7.0 | 0 | |
| | | | | | | | | |
| *NT* | 2 | 2.5 | 1 | 3.0 | 0 | | 0 | |
| | | (2.0 – 3.0) | | | | | | |
| Aotearoa | 9 | 1.7 | 1 | 2.0 | 5 | 2.8 | 3 | 3.0 |
| | | (1.0 – 3.3) | | | | (1.0 – 7.0) | | (1.0 – 7.0) |
| Total | 67 | 2.4 | 34 | 2.5 | 94 | 4.7 | 51 | 5.3 |
| | | (0.1 – 10.0) | | (0.3 – 10.0) | | (0.3 – 20.0) | | (1.0 – 18.0) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). FACEM Trainee = ACEM Advanced and Provisional trainees.

The average unfilled FTE and average unfilled FTE for six or more months for FACEMs and FACEM trainees, for the EDs reported unfilled FTE, is presented in Table 38 by hospital peer group. Unfilled FACEMs and FACEM trainee FTE were comparable between the Metropolitan and Regional EDs in Aotearoa, whereas Regional EDs in Australia generally reported the highest average unfilled FACEM and FACEM trainee across all hospital peer groups.

***Table 38 Average unfilled FTE and unfilled FTE for 6+ months of EM Specialists and FACEM trainees, by hospital peer group.***

| | EM Specialist unfilled FTE | | | | FACEM trainee unfilled FTE | | | |
|---|---|---|---|---|---|---|---|---|
| | 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* | 11 | 2.4 | 5 | 1.7 | 17 | 3.9 | 6 | 4.8 |
| | | (0.1 – 5.0) | | (0.7 – 2.5) | | (1.0 – 13.0) | | (2.0 – 11.0) |
| *Large metropolitan* | 14 | 2.4 | 7 | 2.9 | 26 | 5.7 | 16 | 6.6 |
| | | (0.3 – 8.4) | | (1.2 – 5.0) | | (0.5 – 20.0) | | (1.0 – 18.0) |
| *Medium metropolitan* | 10 | 1.4 | 6 | 1.0 | 13 | 3.9 | 9 | 3.2 |
| | | (0.3 – 4.0) | | (0.3 – 3.0) | | (1.0 – 10.0) | | (1.0 – 9.0) |
| *Large regional* | 14 | 3.7 | 11 | 4.0 | 19 | 6.4 | 12 | 7.5 |
| | | (1.0 – 10.0) | | (1.0 – 10.0) | | (2.0 – 18.0) | | (3.0 – 18.0) |
| *Small/medium regional* | 5 | 2.8 | 3 | 1.4 | 5 | 5.0 | 2 | 3.0 |
| | | (0.5 – 5.0) | | (0.5 – 2.3) | | (2.0 – 8.0) | | |
| *Private* | 3 | 0.9 | 1 | 0.8 | 8 | 1.0 | 3 | 1.3 |
| | | (0.5 – 1.4) | | | | (0.3 – 3.0) | | (1.0 – 2.0) |
| *Specialist* | 1 | 2.0 | 0 | | 1 | 3.0 | | |
| | | | | | | | | |
| Aotearoa | | | | | | | | |
| *Metropolitan* | 3 | 1.5 | 0 | | 1 | 3.0 | 0 | |
| | | | | | | | | |
| *Regional* | 6 | 1.8 | 1 | 2.0 | 4 | 2.8 | 3 | 3.0 |
| | | (1.0 – 3.3) | | | | (1.0 – 7.0) | | (1.0 – 7.0) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists (PEMs). FACEM Trainee = ACEM Advanced and Provisional trainees.

### 4.5.6 *Visiting Medical Officer Staffing*

This section reports on the percentage of EDs that reported employing Visiting Medical Officers (VMOs) at FACEM level, the average number of VMOs employed, and the average total hours they worked per week, by region (Table 39) and by hospital peer group (Table 40).

A total of 56 EDs in Australia and two EDs in Aotearoa reported employing FACEM VMOs to staff their ED. Care must be taken when comparing regions as there was large variation between Australian jurisdictions, with SA, WA and NT EDs reporting not employing FACEM VMOs. VIC EDs employed the highest average number of VMOs (17), who worked an average of 168.1 hours per week.

DEMs and DEMTs were asked to select the types of employment contracts (fixed hours, zero hours, or other) VMOs were employed on within their ED, with 18 out of 57 sites selecting multiple options (one ED did not provide VMO contract type). Overall, zero hours contracts were more common type of contract VMOs were employed in Australian EDs. Ten EDs indicated that VMOs were employed on other types of employment contract, including casual contracts (5), via a contractor (2), internal agreement (1), minimum hours contract (1) and VMO contract across sites (1).

***Table 39 Percentage of EDs who employed VMOs; average number of VMOs employed and average total hours VMOs worked per week; 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 | 56 | 43.8% | 12.2 | 85.1 | 37.5% | 75.0% | 17.9% |
| | | | (1 – 42) | (1.0 – 556.6) | | | |
| *NSW* | 35 | 83.3% | 12.1 | 64.5 | 28.6% | 88.6% | 8.6% |
| | | | (1 – 42) | (1.0 – 200.0) | | | |
| *VIC* | 13 | 43.3% | 16.8 | 168.1 | 69.2% | 61.5% | 15.4% |
| | | | (2 – 32) | (2.0 – 556.6) | | | |
| *QLD* | 5 | 17.2% | 6.0 | 91.3 | 20.0% | 20.0% | 80.0% |
| | | | (1 – 12) | (5.0 – 180.0) | | | |
| *TAS* | 1 | 33.3% | | | | | |
| | | | | | | | |
| *ACT* | 2 | 100.0% | 2.5 | 50.0 | 50.0% | 100.0% | 50.0% |
| | | | (1 – 4) | (10.0 – 90.0) | | | |
| Aotearoa | 2 | 10.5% | 1 | 19.0 | 100.0% | 0.0% | 0.0% |
| | | | | (8.0 - 30.0) | | | |
| Total | 58 | 39.5% | 11.8 | 82.5 | 39.7% | 72.64% | 17.2% |
| | | | (1 – 42) | (1.0 - 556.6) | | | |

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Two of the 58 EDs that reported employing VMOs did not provide number of VMOs employed, seven did not provide the hours that VMOs worked. *Option not exclusive, DEMs and DEMTs can select multiple options, one ED did not provide the VMO contract type.

When assessed by peer group, the largest mean headcount of VMO's was reported by Australian Major EDs (17), followed by Medium metropolitan EDs (16). No Metropolitan EDs in Aotearoa reported employing any VMOs at FACEM level.

***Table 40 Percentage of EDs that employed VMOs; average number of VMOs employed and average total hours VMOs worked per week; 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* | 17 | 54.8% | 16.6 | 129.5 | 35.3% | 82.4% | 11.8% |
| | | | (1 – 42) | (8.0 – 437.0) | | | |
| *Large metropolitan* | 15 | 48.4% | 12.3 | 87.5 | 40.0% | 93.3% | 13.3% |
| | | | (1 – 30) | (5.0 – 556.6) | | | |
| *Medium metropolitan* | 7 | 43.8% | 16.2 | 64.0 | 28.6% | 85.7% | 0.0% |
| | | | (1 – 33) | (10.0 – 140.0) | | | |
| *Large regional* | 9 | 39.1% | 4.6 | 33.0 | 33.3% | 66.7% | 22.2% |
| | | | (1 – 20) | (1.0 – 100.0) | | | |
| *Small/medium regional* | 3 | 30.0% | 9.0 | 30.7 | 100.0% | 33.3% | 0.0% |
| | | | (2 – 22) | (12.0 – 60.0) | | | |
| *Private* | 4 | 36.4% | 6.5 | 74.5 | 25.0% | 25.0% | 75.0% |
| | | | (2 – 12) | (2.0 – 180.0) | | | |
| *Specialist* | 1 | 16.7% | 7 | 60.0 | 0.0% | 0.0% | 100.0% |
| | | | | | | | |
| Aotearoa | | | | | | | |
| *Regional* | 2 | 16.7% | 1 | 19.0 | 100.0% | 0.0% | 0.0% |
| | | | | (8.0 – 30.0) | | | |

Notes: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Two of the 58 EDs that reported employing VMOs did not provide number of VMOs employed, seven did not provide the hours that VMOs worked. *Option not exclusive, DEMs and DEMTs can select multiple options, one ED did not provide the VMO contract type.

### 4.5.7 *Locum FACEM Staffing*

This section presents the number and percentage of EDs that employed locums at FACEM level, the average number of locums employed and the average total hours they worked per week, by region (Table 41), and by hospital peer group (Table 42).

Less than one-third of Australian EDs (29%) employed locum FACEMs, decreasing from 38% reported in the 2020 Census, while the percentage of Aotearoa EDs remained unchanged at 32%. None of the EDs in SA reported that locum FACEMs were employed. Of the EDs that employed locum FACEMs, the average hours per week locum FACEMs worked in Australian EDs ranged between 17.5 and 122.8 hours, compared with 16.9 hours in Aotearoa EDs.

***Table 41 Percentage of EDs that employed locums, average number of locums employed, and average total hours locums worked per week, by region.***

| | EDs with locum FACEMs employed | | Number of locum FACEMs employed | Hours per week locum FACEMs work |
|---|---|---|---|---|
| Region | n | % | mean (range) | mean (range) |
| Australia | 37 | 28.9% | 5.2 | 39.5 |
| | | | (0.5 – 33) | (2 – 210) |
| *NSW* | 12 | 28.6% | 5.3 | 55.0 |
| | | | (1 – 33) | (2 – 210) |
| *VIC* | 11 | 36.7% | 6.2 | 20.7 |
| | | | (1 – 20) | (3 – 48) |
| *QLD* | 2 | 6.9% | 3.0 | 17.5 |
| | | | (1 – 5) | (5 – 30) |
| *WA* | 7 | 58.3% | 5.9 | 25.1 |
| | | | (1 – 9) | (5 – 100) |
| *TAS* | 2 | 66.7% | 3.0 | 122.8 |
| | | | (1 – 5) | (45.5 – 200) |
| *ACT* | 1 | 50.0% | 7.0 | 30.0 |
| | | | | |
| *NT* | 2 | 66.7% | 0.8 | 35.0 |
| | | | (0.5 – 1) | (20 – 50) |
| Aotearoa | 6 | 31.6% | 5.8 | 16.9 |
| | | | (2 – 10) | (9 – 29.5) |
| Total | 43 | 29.3% | 5.2 | 36.8 |
| | | | (0.5 – 33) | (2 – 210) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. Three of the 43 EDs that reported employing locums at FACEM level did not provide the head count of the locums employed, and two did not provide the hours that locums worked.

Large regional and Small/ medium regional EDs in Australia were more likely than EDs in other peer groups to employ locum FACEMs, at 56.5% and 50.0%, respectively. Similarly, Regional EDs in Aotearoa were also more likely than Metropolitan EDs to report employing locum FACEM, with an average of seven locum FACEMs employed across four reporting EDs. Medium metropolitan EDs in Australia had the highest mean number of locums employed (12.3), contributing to an average of 64.7 hours per week worked. None of the Specialist EDs in Australia reported employing locum FACEMs.

***Table 42 Percentage of EDs that employed locums, average number of locums employed, and average total hours locums worked per week, 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* | 3 | 9.7% | 2.7 | 63.3 |
| | | | (1 – 6) | (40 – 100) |
| *Large metropolitan* | 9 | 29.0% | 4.2 | 12.9 |
| | | | (1 – 7) | (3 – 30) |
| *Medium metropolitan* | 3 | 18.8% | 12.3 | 64.7 |
| | | | (1 – 33) | (10 – 168) |
| *Large regional* | 13 | 56.5% | 3.2 | 54.1 |
| | | | (0.5 – 15) | (10 – 210) |
| *Small/medium regional* | 5 | 50.0% | 5.3 | 28.5 |
| | | | (2 – 9) | (10.5 – 70) |
| *Private* | 4 | 36.4% | 10.3 | 22.5 |
| | | | (1 – 20) | (2 – 48) |
| Aotearoa | | | | |
| *Metropolitan* | 2 | 28.6% | 4.5 | 10.5 |
| | | | (2 – 7) | (9 – 12) |
| *Regional* | 4 | 33.3% | 7.0 | 21.2 |
| | | | (4 – 10) | (10 – 29.5) |

Note: Three of the 43 EDs that reported employing locum FACEMs did not provide the head count of the locums employed, and two did not provide the hours that locums worked.

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

A total of 137 ACEM-accredited adult and mixed EDs provided annual 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 permanent FACEM staffing model. Paediatric EDs are not included in this model (n= 7). Three EDs were excluded as their annual presentations exceeded the current G23 model limit of 120,000 presentations for staffing FTE requirement calculation.

The percentage of EDs that met the minimum recommended FACEM staffing model, at the time of reporting, is presented in Table 43 by region and Table 44 by hospital peer group. Overall, 27.8% of Aotearoa and 26.1% of Australian EDs were meeting the minimum recommended FACEM staffing outlined in G23. The percentage of Aotearoa EDs meeting the minimum recommended FACEM staffing has fluctuated from 13% in 2017, increasing to 24% in 2018, then decreasing again in 2019 to 7% before increasing to 28% in the 2020 and 2021 Census. Whereas the number of Australian EDs meeting the minimum recommended FACEM staffing has consistently increased from 22% in 2017, 23% in 2018, 27% in 2019 and 32% in 2020, until the 2021 Census that showed a decrease to 26%.

***Table 43 Number and percentage of adult and mixed EDs meeting ACEM's G23 minimum FACEM staffing model, 2021 vs. 2020, by region.***

| | 2020 | | | 2021 | | | |
|---|---|---|---|---|---|---|---|
| Region | Number of EDs | Number of EDs that met G23 | % | Number of EDs | Number of EDs that met G23 | % | Percent change |
| Australia | 123 | 39 | 31.7% | 119 | 31 | 26.1% | -17.7% |
| *NSW* | 40 | 8 | 20.0% | 39 | 5 | 12.8% | -36.0% |
| *VIC* | 30 | 14 | 46.7% | 29 | 14 | 48.3% | 3.4% |
| *QLD* | 27 | 9 | 33.3% | 26 | 4 | 15.4% | -53.8% |
| *WA* | 11 | 3 | 27.3% | 11 | 3 | 27.3% | 0.0% |
| *SA* | 7 | 3 | 42.9% | 6 | 3 | 50.0% | 16.6% |
| *TAS* | 3 | 1 | 33.3% | 3 | 1 | 33.3% | 0.0% |
| *ACT* | 2 | 0 | 0.0% | 2 | 0 | 0.0% | 0.0% |
| *NT* | 3 | 1 | 33.3% | 3 | 1 | 33.3% | 0.0% |
| Aotearoa | 18 | 5 | 27.8% | 18 | 5 | 27.8% | 0.0% |
| Total | 141 | 44 | 31.2% | 137 | 36 | 26.3% | -15.7% |

Over half (55.2%) of Australian Major hospital EDs were meeting ACEM's minimum FACEM staffing model at the time of reporting, slightly decreasing from 60% in the 2020 Census. Consistent with the 2020 Census findings, none of the Small/medium regional hospitals in Australia and only 16.7% of Regional EDs in Aotearoa were meeting the minimum FACEM staffing requirements.

***Table 44 Number and percentage of adult and mixed EDs meeting ACEM's G23 minimum FACEM staffing model, 2021 vs. 2020, by hospital peer group.***

| | 2020 | | | 2021 | | | |
|---|---|---|---|---|---|---|---|
| Hospital peer group | Number of EDs | Number of EDs that met G23 | % | Number of EDs | Number of EDs that met G23 | % | Percent change |
| Australia | | | | | | | |
| *Major* | 30 | 18 | 60.0% | 29 | 16 | 55.2% | -8.0% |
| *Large metropolitan* | 31 | 9 | 29.0% | 30 | 7 | 23.3% | -19.7% |
| *Medium metropolitan* | 16 | 4 | 25.0% | 16 | 2 | 12.5% | -50.0% |
| *Large regional* | 23 | 5 | 21.7% | 23 | 3 | 13.0% | -40.1% |
| *Small/medium regional* | 10 | 0 | 0.0% | 10 | 0 | 0.0% | 0.0% |
| *Private* | 13 | 3 | 23.1% | 11 | 3 | 27.3% | 18.2% |
| Aotearoa | | | | | | | |
| *Metropolitan* | 6 | 3 | 50.0% | 6 | 3 | 50.0% | 0.0% |
| *Regional* | 12 | 2 | 16.7% | 12 | 2 | 16.7% | 0.0% |

### 4.7 ED Staff Rosters

Weekday and weekend rosters for EM Specialists (FACEM and PEM Specialists) were provided by 136 EDs and FACEM trainee rosters were provided by 118 EDs. Several EDs provided roster data that was excluded from analysis where appropriate, for example:

- Six EDs (five EDs in Australia and one EDs in Aotearoa) reported being unable to separate EM Specialists from other senior staff on the roster.
- Twenty-seven EDs (23 EDs in Australia and four EDs in Aotearoa) reported being unable to separate FACEM trainees from other staff on the roster.
- For six EDs, FACEM and/or FACEM trainee roster data could not be reported for various reasons, including using an alternative roster.
- For three EDs, the night shift roster data for FACEMs and/or FACEM trainees could not be separated from other staff on the roster.

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 weekdays or overlapping shifts over weekends as required.

Table 45 displays the average EM Specialist FTE for weekday and weekend rosters by region, and a breakdown by hospital peer group is available in Table 46. EM Specialists rostered on-floor during the night shifts were relatively uncommon (only on-call data shown). Five EDs had EM Specialists rostered on-floor during the night shift on weekdays, averaging 0.8 FTE (range: 0.5 – 1.0), including two Regional EDs. Ten EDs had EM Specialists rostered on-floor during the night shift on weekends, averaging 1.4 FTE (range: 0.5 – 3.0).

***Table 45 Average EM Specialist FTE on weekday and weekend rosters, by region.***

| | Weekday roster | | | Weekend roster | | |
|---|---|---|---|---|---|---|
| | Day (OF) | Eve (OF) | Night (OC) | Day (OF) | Eve (OF) | Night (OC) |
| Region | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) |
| Australia | 3.0 | 2.7 | 1.1 | 2.6 | 2.5 | 1.1 |
| | (0.5 – 7.0) | (0.0 – 7.0) | (0.0 – 5.0) | (0.0 – 6.0) | (0.0 - 6.0) | (0.0 - 11.0) |
| *NSW* | 2.4 | 2.2 | 1.0 | 2.1 | 2.0 | 1.0 |
| | (1.0 – 5.0) | (0.0 – 4.0) | (0.0 – 2.0) | (0.0 – 5.0) | (0.0 - 4.0) | (0.0 - 2.0) |
| *VIC* | 3.3 | 3.3 | 1.3 | 2.9 | 3.0 | 1.1 |
| | (0.5 – 7.0) | (0.5 – 7.0) | (0.5 – 5.0) | (0.5 – 6.0) | (0.5 - 6.0) | (0.0 - 3.0) |
| *QLD* | 3.5 | 2.6 | 1.1 | 2.8 | 2.5 | 1.2 |
| | (1.0 – 7.0) | (1.0 – 6.0) | (0.0 – 3.0) | (0.5 – 6.0) | (0.5 - 6.0) | (0.0 - 3.0) |
| *WA* | 3.5 | 3.0 | 1.0 | 2.8 | 2.7 | 1.8 |
| | (1.0 – 7.0) | (2.0 – 6.0) | | (1.0 – 6.0) | (2.0 - 4.0) | (0.0 - 11.0) |
| *SA* | 3.1 | 3.0 | 1.0 | 3.1 | 2.8 | 0.8 |
| | (1.0 – 5.0) | (1.0 – 5.0) | | (1.0 – 5.0) | (1.0 - 4.0) | (0.0 - 1.0) |
| *TAS* | 3.0 | 2.5 | 1.0 | 3.0 | 2.5 | 1.0 |
| | (2.0 – 4.0) | (2.0 – 3.0) | | (2.0 – 4.0) | (2.0 - 3.0) | |
| *ACT* | 3.5 | 3.0 | 1.0 | 2.5 | 2.5 | 1.0 |
| | (2.0 – 5.0) | (2.0 – 4.0) | | (2.0 – 3.0) | (2.0 - 3.0) | |
| *NT* | 2.3 | 1.7 | 1.0 | 2.0 | 1.7 | 1.0 |
| | (1.0 – 4.0) | (1.0 – 3.0) | | (1.0 – 3.0) | (1.0 - 3.0) | (0.0 - 1.0) |
| Aotearoa | 2.2 | 2.0 | 0.9 | 1.7 | 1.9 | 0.9 |
| | (1.0 – 4.0) | (1.0 – 4.0) | (0.0 – 1.0) | (1.0 – 4.0) | (1.0 - 4.0) | (0.0 - 1.0) |
| Total | 2.9 | 2.6 | 1.1 | 2.5 | 2.4 | 1.1 |
| | (0.5 – 7.0) | (0.0 – 7.0) | (0.0 – 5.0) | (0.0 – 6.0) | (0.0 - 6.0) | (0.0 - 11.0) |

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

Major Australian EDs had the greatest average FTE of EM Specialists rostered on the floor during the days and evenings on both weekdays and weekends compared to other hospital peer groups (Table 46). The average EM Specialist FTE in the Specialist EDs was comparable to that in the Large metropolitan EDs.

***Table 46 Average EM Specialist FTE on weekday and weekend rosters, by hospital peer group.***

| Hospital peer group | Weekday roster | | | Weekend roster | | |
|---|---|---|---|---|---|---|
| | Day (OF) | Eve (OF) | Night (OC) | Day (OF) | Eve (OF) | Night (OC) |
| | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) |
| Australia | | | | | | |
| *Major* | 4.6 | 3.9 | 1.2 | 3.9 | 3.5 | 1.1 |
| | (3.0 – 7.0) | (2.0 – 6.0) | (1.0 – 2.0) | (2.0 – 6.0) | (2.0 – 6.0) | (0.0 – 2.0) |
| *Large metropolitan* | 3.5 | 3.0 | 1.2 | 2.9 | 2.8 | 1.5 |
| | (1.8 – 6.0) | (1.0 – 6.0) | (0.0 – 3.0) | (1.0 – 6.0) | (1.0 – 5.5) | (0.0 – 11.0) |
| *Medium metropolitan* | 2.1 | 1.9 | 1.0 | 1.8 | 1.6 | 1.0 |
| | (1.0 – 4.0) | (1.0 – 4.0) | | (1.0 – 4.0) | (0.0 – 3.0) | (0.0 – 2.0) |
| *Large regional* | 2.2 | 2.0 | 1.0 | 2.1 | 2.0 | 1.0 |
| | (0.5 – 4.0) | (0.5 – 4.0) | (0.5 – 1.0) | (0.5 – 4.0) | (0.5 – 4.0) | (0.5 – 1.0) |
| *Small/medium regional* | 1.4 | 1.2 | 0.9 | 1.3 | 1.2 | 0.9 |
| | (1.0 – 3.0) | (0.0 – 2.0) | (0.0 – 2.0) | (0.0 – 3.0) | (0.0 – 2.0) | (0.0 – 2.0) |
| *Private* | 1.4 | 1.6 | 0.9 | 1.3 | 1.6 | 0.9 |
| | (1.0 – 3.0) | (1.0 – 3.0) | (0.0 – 1.0) | (0.5 – 3.0) | (0.5 – 3.0) | (0.0 – 1.0) |
| *Specialist* | 3.5 | 3.2 | 1.0 | 2.7 | 2.8 | 1.2 |
| | (2.0 – 7.0) | (2.0 – 7.0) | (1.0 – 5.0) | (1.0 – 4.0) | (1.0 – 6.0) | (1.0 – 2.0) |
| Aotearoa | | | | | | |
| *Metropolitan* | 2.6 | 2.6 | 1.0 | 2.3 | 2.4 | 1.0 |
| | (2.0 – 4.0) | (2.0 – 4.0) | | (1.0 – 4.0) | (2.0 – 4.0) | |
| *Regional* | 1.9 | 1.6 | 0.9 | 1.3 | 1.7 | 0.9 |
| | (1.0 – 3.5) | (1.0 – 3.0) | (0.0 – 1.0) | (1.0 – 2.0) | (1.0 – 2.0) | (0.0 – 1.0) |

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

The average FACEM trainee FTE for weekday and weekend rosters, by region is displayed in Table 47. SA and Aotearoa EDs had the lowest average FACEM trainee FTE rostered on floor across day, evening and night shifts.

***Table 47 Average for FACEM trainee FTE on weekday and weekend rosters, 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 | 2.5 | 2.8 | 1.8 | 0.1 | 2.5 | 2.8 | 1.8 | 0.2 |
| | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 6.0) | (0.0 – 2.0) | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 6.0) | (0.0 – 6.0) |
| *NSW* | 2.5 | 2.7 | 1.6 | 0.2 | 2.4 | 2.7 | 1.7 | 0.2 |
| | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 5.0) | (0.0 – 2.0) | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 5.0) | (0.0 – 2.0) |
| *VIC* | 2.3 | 2.9 | 1.9 | 0.0 | 2.2 | 2.8 | 1.9 | 0.0 |
| | (0.0 – 6.0) | (0.0 – 7.0) | (0.0 - 6.0) | (0.0 – 0.0) | (1.0 – 6.0) | (0.0 – 7.0) | (0.0 – 6.0) | |
| *QLD* | 2.9 | 3.3 | 1.9 | 0.2 | 2.9 | 3.3 | 2.0 | 0.2 |
| | (0.5 – 6.0) | (0.5 – 6.0) | (0.0 – 4.0) | (0.0 – 1.0) | (0.5 – 6.0) | (0.5 – 7.0) | (0.0 – 4.0) | (0.0 – 1.0) |
| *WA* | 2.3 | 2.6 | 1.7 | 0.3 | 2.4 | 2.5 | 1.7 | 0.3 |
| | (0.4 – 4.0) | (0.6 – 5.0) | (0.0 – 4.0) | (0.0 – 2.0) | (1.0 – 4.0) | (0.3 – 5.0) | (0.0 – 4.0) | (0.0 – 2.0) |
| *SA* | 2.1 | 2.1 | 1.8 | 0.0 | 1.9 | 1.9 | 1.8 | 0.0 |
| | (0.5 – 5.0) | (0.5 – 5.0) | (0.3 – 3.5) | | (0.5 – 4.0) | (0.5 – 4.0) | (0.3 – 3.5) | |
| *ACT* | 3.0 | 3.0 | 2.0 | 0.0 | 3.0 | 3.0 | 2.0 | 0.0 |
| | (2.0 – 4.0) | (2.0 – 4.0) | (1.0 – 3.0) | | (2.0 – 4.0) | (2.0 – 4.0) | (1.0 – 3.0) | |
| *NT* | 2.7 | 3.0 | 2.0 | 0.0 | 2.7 | 3.0 | 2.0 | 0.0 |
| | (2.0 – 4.0) | (2.0 – 4.0) | | | (2.0 – 4.0) | (2.0 – 4.0) | | |
| Aotearoa | 1.6 | 1.9 | 1.4 | 0.1 | 1.5 | 1.9 | 1.2 | 0.3 |
| | (0.0 – 4.0) | (0.0 – 5.0) | (0.0 – 4.0) | (0.0 – 1.0) | (0.0 – 4.0) | (0.0 – 5.0) | (0.0 – 4.0) | (0.0 – 3.0) |
| Total | 2.4 | 2.7 | 1.7 | 0.1 | 2.4 | 2.7 | 1.7 | 0.1 |
| | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 6.0) | (0.0 – 2.0) | (0.0 – 9.0) | (0.0 – 9.0) | (0.0 – 6.0) | (0.0 – 6.0) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. OF = On-floor. OC = On-call. Tasmanian EDs are not displayed as two of three Tasmanian EDs reported that they included non-FACEM trainees in all FACEM trainee roster data.

Table 48 presents the average FACEM trainee FTE on weekday and weekend rosters by hospital peer group. Major EDs in Australia had higher numbers of FACEM trainees rostered on-floor for the majority of shifts, compared to EDs in other peer groups, which is consistent with the findings from the previous Census. FACEM trainees were more likely to be rostered on the floor than on-call during night shifts for both weekdays and weekends, which was consistently seen across all peer groups.

***Table 48 Average FACEM trainee FTE on weekday and weekend rosters, by hospital peer group.***

| | Weekday roster | | | | Weekend roster | | | |
|---|---|---|---|---|---|---|---|---|
| | **Day (OF)** | **Eve (OF)** | **Night (OF)** | **Night (OC)** | **Day (OF)** | **Eve (OF)** | **Night (OF)** | **Night (OC)** |
| Hospital peer group | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) | mean (range) |
| Australia | | | | | | | | |
| *Major* | 4.2 | 4.9 | 3.3 | 0.1 | 4.4 | 5.0 | 3.3 | 0.3 |
| | (1.0 – 9.0) | (0.0 – 9.0) | (0.0 – 6.0) | (0.0 – 2.0) | (1.0 – 9.0) | (1.0 – 9.0) | (0.0 – 6.0) | (0.0 – 6.0) |
| *Large metropolitan* | 2.5 | 2.9 | 1.7 | 0.2 | 2.5 | 2.8 | 1.9 | 0.2 |
| | (1.0 – 6.0) | (1.0 – 7.0) | (0.0 – 4.0) | (0.0 – 2.0) | (0.0 – 6.0) | (1.0 – 7.0) | (0.5 – 4.0) | (0.0 – 2.0) |
| *Medium metropolitan* | 1.4 | 1.7 | 1.3 | 0.2 | 1.5 | 1.8 | 1.3 | 0.2 |
| | (0.0 – 3.0) | (0.0 – 4.0) | (0.0 – 3.0) | (0.0 – 1.0) | (0.0 – 3.0) | (0.0 – 4.0) | (0.0 – 3.0) | (0.0 – 1.0) |
| *Large regional* | 2.0 | 2.2 | 1.1 | 0.2 | 2.0 | 2.3 | 1.1 | 0.2 |
| | (0.2 – 4.0) | (0.2 – 5.0) | (0.0 – 3.0) | (0.0 – 1.0) | (0.2 – 5.0) | (0.2 – 5.0) | (0.0 – 3.0) | (0.0 – 1.0) |
| *Small/medium regional* | 0.8 | 0.7 | 0.4 | 0.0 | 0.7 | 0.6 | 0.3 | 0.0 |
| | (0.0 – 2.0) | (0.0 – 2.0) | (0.0 – 2.0) | | (0.0 – 2.0) | (0.0 – 2.0) | (0.0 – 2.0) | |
| *Private* | 0.9 | 1.1 | 0.4 | 0.0 | 0.8 | 1.1 | 0.5 | 0.0 |
| | (0.0 – 2.0) | (0.0 – 2.0) | (0.0 – 1.0) | | (0.0 – 2.0) | (0.0 – 2.0) | (0.0 – 1.0) | |
| *Specialist* | 1.3 | 2.7 | 1.3 | 0.3 | 1.3 | 2.3 | 1.3 | 0.3 |
| | (1.0 – 2.0) | (2.0 – 4.0) | (1.0 – 2.0) | (0.0 – 1.0) | (1.0 – 2.0) | (1.0 – 4.0) | (1.0 – 2.0) | (0.0 – 1.0) |
| Aotearoa | | | | | | | | |
| *Metropolitan* | 2.3 | 2.8 | 2.6 | 0.0 | 2.3 | 2.7 | 2.0 | 0.5 |
| | (1.0 – 4.0) | (1.0 – 5.0) | (1.0 – 4.0) | | (1.0 – 4.0) | (1.0 – 5.0) | (0.0 – 4.0) | (0.0 – 3.0) |
| *Regional* | 1.2 | 1.3 | 0.8 | 0.1 | 1.0 | 1.1 | 0.7 | 0.1 |
| | (0.0 – 3.0) | (0.0 – 3.0) | (0.0 – 2.0) | (0.0 – 1.0) | (0.0 – 2.5) | (0.0 – 2.5) | (0.0 – 1.0) | (0.0 – 1.0) |

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

In 2021, a total of 100 EDs indicated that trainees were rostered on the floor during weeknights and 102 during weekend nights, with an average of 2.0 FTE (range: 0.1 – 6.0). This has halved since the 2020 Census where 96 EDs reported the average was 4.1 FTE (range: 1.0-12.0). The 2021 Census FTE has returned to the FTE reported in the 2019 Census when 99 EDs indicated that trainees were rostered on the floor during weeknights and weekend nights, with an average of 2.0 FTE (range: 1.0-4.0).

The average total FTE of EM Specialists and FACEM trainees on weekday and weekend rosters across all on-floor and on-call shifts (day, evening and night) by region are presented in Table 49. For EM Specialists, the average FTE was higher during the weekday compared to the weekend across all regions, except for TAS. The average FACEM trainee FTE, on the other hand, was relatively comparable between weekdays and weekends.

***Table 49 Average total EM Specialist and FACEM trainee FTE across all on-floor and on-call shifts over 24 hours by weekday and weekend, by region.***

| | EM Specialists | | FACEM trainees | |
|---|---|---|---|---|
| | **Weekday** | **Weekend** | **Weekday** | **Weekend** |
| Region | mean (range) | mean (range) | mean (range) | mean (range) |
| Australia | 7.2 | 6.5 | 7.3 | 7.4 |
| | (1.0 – 19.0) | (0.0 – 16.0) | (0.0 – 24.0) | (0.0 – 25.0) |
| *NSW* | 6.2 | 5.6 | 7.3 | 7.2 |
| | (1.0 – 11.0) | (0.0 – 11.0) | (0.0 – 18.0) | (0.0 – 25.0) |
| *VIC* | 8.4 | 7.5 | 7.1 | 6.9 |
| | (2.0 – 19.0) | (1.5 – 16.0) | (0.0 – 18.0) | (0.0 – 17.0) |
| *QLD* | 7.6 | 6.8 | 8.4 | 8.5 |
| | (2.0 – 17.0) | (2.0 – 16.0) | (1.5 – 16.0) | (1.5 – 16.0) |
| *WA* | 7.6 | 6.6 | 6.9 | 7.0 |
| | (4.0 – 14.6) | (4.0 – 10.0) | (1.4 – 14.0) | (1.5 – 14.0) |
| *SA* | 7.8 | 7.4 | 6.0 | 5.6 |
| | (3.0 – 12.0) | (3.0 – 12.0) | (1.3 – 13.5) | (1.3 – 11.5) |
| *TAS* | 6.5 | 6.5 | | |
| | (5.0 – 8.0) | (5.0 – 8.0) | | |
| *ACT* | 7.5 | 6.0 | 8.0 | 8.0 |
| | (5.0 – 10.0) | (5.0 – 7.0) | (5.0 – 11.0) | (5.0 – 11.0) |
| *NT* | 5.0 | 4.7 | 7.7 | 7.7 |
| | (3.0 – 8.0) | (3.0 – 7.0) | (6.0 – 10.0) | (6.0 – 10.0) |
| Aotearoa | 5.2 | 4.7 | 4.9 | 4.7 |
| | (3.0 – 9.0) | (3.0 – 10.0) | (0.0 – 13.0) | (0.0 – 13.0) |
| Total | 7.0 | 6.3 | 7.0 | 7.1 |
| | (1.0 – 19.0) | (0.0 – 16.0) | (0.0 – 24.0) | (0.0 – 25.0) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists. Tasmanian EDs are not displayed as two of three Tasmanian EDs reported that they included non-FACEM trainees in all FACEM trainee roster data.

The average total EM Specialists and FACEM trainees FTE for all on-floor and on-call shifts (day, evening and night) on weekday and weekend rosters by hospital peer group are presented in Table 50. EM Specialists had a greater FTE rostered on weekdays compared to weekends across peer groups in Australia, except for the Large regional and Small/ medium regional EDs where similar FTE was seen during weekdays and weekends. Major, Medium metropolitan in Australia and Metropolitan EDs in Aotearoa rostered a slightly higher average of FACEM trainees FTE on weekends than weekdays.

***Table 50 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, 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* | 10.0 | 8.8 | 12.7 | 13.2 |
| | (6.0 – 19.0) | (5.0 – 14.0) | (0.0 – 24.0) | (3.0 – 25.0) |
| *Large metropolitan* | 8.3 | 7.3 | 7.6 | 7.4 |
| | (4.0 – 17.0) | (3.0 – 16.0) | (2.5 – 17.0) | (2.5 – 17.0) |
| *Medium metropolitan* | 5.4 | 4.8 | 4.7 | 4.9 |
| | (3.0 – 9.0) | (3.0 – 8.0) | (0.0 – 9.0) | (0.0 – 9.0) |
| *Large regional* | 5.5 | 5.5 | 5.6 | 5.7 |
| | (2.0 – 9.0) | (1.5 – 8.0) | (0.6 – 15.0) | (1.0 - 15.0) |
| *Small/medium regional* | 3.7 | 3.6 | 1.8 | 1.6 |
| | (1.0 – 7.0) | (0.0 – 7.0) | (0.0 – 6.0) | (0.6 – 16.0) |
| *Private* | 5.0 | 4.6 | 2.4 | 2.3 |
| | (2.0 – 8.0) | (2.0 – 7.0) | (3.0 – 5.0) | (0.0 – 5.0) |
| *Specialist* | 8.3 | 6.7 | 5.7 | 5.3 |
| | (5.0 – 19.0) | (4.0 – 14.0) | (4.0 – 8.0) | (3.0 – 8.0) |
| Aotearoa | | | | |
| *Metropolitan* | 6.1 | 6.0 | 7.3 | 7.5 |
| | (5.0 – 9.0) | (4.0 – 10.0) | (2.0 – 13.0) | (3.0 – 13.0) |
| *Regional* | 4.6 | 3.9 | 3.4 | 2.9 |
| | (3.0 – 7.5) | (3.0 – 6.0) | (3.0 – 7.0) | (0.0 – 6.0) |

Note: Where no range is provided, $n \leq 1$ or there is no variation from the mean. EM Specialist = FACEMs and Paediatric EM Specialists.

## 5. Discussion of Findings

This report focuses on ED staffing and casemix of the 2021 Annual Site Census. Overall, the FACEM FTE in Regional EDs were significantly lower than that in the Major and Metropolitan EDs in both Australia and Aotearoa. Large regional EDs in Australia were more likely to report having unfilled FACEM or PEM Specialist FTE, compared to EDs in other peer groups, representing almost one-third of all reported vacant EM Specialist FTE (51.9 of 144.3 vacant FTE). This data suggests that despite increasing FACEM numbers each year, there is still an underrepresentation of FACEMs in regional-based EDs.

Similarly, Advanced trainee FTE remained the lowest in the Small/ medium regional EDs in Australia and Regional EDs in Aotearoa. When asked about unfilled FACEM trainee FTE, over 80% of Metropolitan EDs and Larger regional EDs in Australia reported having unfilled FTE, accounting for >100 unfilled FTE. Indeed, an average of over 10,000 ED attendances per FACEM trainee were seen in Medium metropolitan, Large regional, and Small/ medium regional EDs, consistent with the 2020 Census. This highlights the hospital peer groups where the FACEM trainee workforce was inadequate to meet ED demands.

VMOs and locums were employed at varying degrees to staff ACEM-accredited EDs. Almost one-third of Australian and Aotearoa EDs employed locums. Whereas almost half (43.8%) of Australian EDs and just over 10% of Aotearoa EDs reported employing VMOs. Major EDs in Australia reported employing the highest average number (n= 17) of VMOs who worked an average of 130 hours per week. Most of the Major and Metropolitan EDs reported employing VMOs on zero hours contracts. In contrast, Regional EDs in Australia were more likely to report employing locum FACEMs, with 56.1% of Large regional and 50% of Small Regional EDs reporting so. Regional EDs in Aotearoa were also more likely to report employing locum FACEMs or VMOs, compared to Metropolitan EDs.

Overall, the average number of annual presentations has increased from that reported in the 2020 Census. Additionally, nine EDs (seven Australian and two Aotearoa EDs) have reported annual presentations greater than 100,000, an increase from four EDs in 2020 and six in 2019. Connected to this, increasing ED demand while the EM Specialist workforce remained stable could have resulted in the decrease (from 31.2% to 26.3%) 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). It is also noteworthy that, for the first time, three EDs reported over 120,000 annual attendances in the 2021 Census. This has exceeded the highest presentation range (i.e. up to 120,000 attendances) that ACEM's current G23 model for with respect to minimum senior staffing FTE.

Importantly, the percentage of EDs reporting ED length of stays (LOS) of >24 hours has continued to increase, from 83.8% (119/142) in the 2019 Census, 90.1% (119/132) in the 2020 Census, to 90.6% (126/139) for the 2021 Census reporting period. Consistent with the previous census, seven EDs reported that over 2% of their annual attendances stayed in their ED for more than 24 hours. With longer stays in the ED linked to longer inpatient stays (Richardson, 2003), overcrowded EDs, and poorer patient outcomes (Donatelli, 2013) (Jones, 2021) (Forster, 2003), it is concerning that more EDs are reporting a larger proportion of annual presentations with LOS's exceeding 24 hours over the years.

The average number of hours EDs reported that they were on ambulance bypass has increased again, from an average of 273 hours (range: 5 - 1,510 hours) in the 2018-19 financial year to 706 hours (range: 4 - 3,502 hours) in the 2019-20 financial year, to 1,361 hours (range: 13 - 6,653) in the 2020-21 financial year. 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) in 2018-19, 3,284 instances (range: 5 – 20,079) in 2019-20 to 4,770 instances (2 – 26,438) in 2020-21. This, again, reflects the incredible strain that EDs and ambulance services were reporting associated with ambulance ramping and access block.

Aboriginal and/or Torres Strait Islander peoples accounted for 6.1% of all ED presentations to ACEM-accredited EDs in Australia, higher than the proportion of Aboriginal and Torres Strait Islander peoples in the Australian population (3.2%) (Australian Bureau of Statistics, 2022). Māori accounted for 19.3% of all ED presentations to ACEM-accredited EDs in Aotearoa. Similarly, Māori were overrepresented among ED presentations, compared with 17.1% of Māori in the Aotearoa population (New Zealand Government, 2021).

Compared with the 2020 Census, a smaller proportion of EDs reported that data quality regarding Indigenous status was poor (5.6% vs. 9.2%). A similar percentage reported no Indigenous Health Liaison

Officer was available for patients and carers (7.5%) compared to the 2020 census (7.4%). All but two EDs reported interpreter services were available in the ED. Almost half (45.7%) of EDs reported having access to additional support workers (e.g., Cultural Liaison Officers, Waiting Room volunteers, Pastoral care) who operated in the ED or waiting room for CALD and other diverse patients and carers. Ongoing surveillance and effort will be made to advocate for improving the cultural capabilities of ACEM-accredited EDs.

In summary, the 2021 Census has illustrated a number of workforce issues and highlighted concerning trends among some ACEM-accredited sites, such as an inability to fill staffing vacancies and a reliance on VMOs and locums rather than permanent FACEM workforce, with increasing ED demands. The Census also highlights more broadly the disparity between Regional EDs and Metropolitan/ Major EDs, and presents a detailed assessment of the workforce and patient demand for Australia and Aotearoa New Zealand.

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## 7. Suggested Citation

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## 8. Contact for further information


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# 9. Appendix 1

Australasian College for Emergency Medicine

## 2021 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 Cultural Capabilities and Staff Training
- ED Resources
- Ultrasound Teaching and Other 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 indicate '0')*:

| | 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 | | |
| DEMT/Co-DEMT 5 | | |
| Local WBA Coordinator(s) | | |
| Mentoring Coordinator(s) | | |

### 2.1.1 On-Floor Supervision and Clinical Support Time

| | **Adult/ Mixed ED** Hours per week |
|---|---|
| How many hours per week are FACEMs or PEM Specialists rostered for on-floor supervision (excluding clinical support time)?<br>(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 or PEM Specialists 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 or PEM Specialist supervision? | |
| What is the percentage of FACEMs or PEM Specialists actively performing WBA's? | |

| | **Adult/ Mixed ED** Hours per month |
|---|---|
| What is the total clinical support time (hours per month) the ED provides for Local 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 ED or hospital 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 ACEM Director of Research (if applicable)

Name: _____

Total FTE: _____

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

Name: _____

Job title: _____

Research qualifications: _____

Email: _____

### 2.2.3 ED or hospital data manager

☐ Same as ED research coordinator

Name: _____

Job title: _____

Email: _____

### 2.2.4 Best contact for the person responsible for ED quality and safety

Name: _____

Job title: _____

Email: _____

### 2.2.5 ED or hospital designated disaster and/or pandemic coordinator

Name: _____

Job title: _____

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 indicate '0')*:

| | **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 indicate '0':*

| | **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 |

† Includes FRACP PEM Specialists and FACEM PEM Specialists

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

#### 3.1.2 Locums

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

Are FACEMs (who are not employed at your hospital or ED) employed as Locums within your ED?

☐ No (please go to section 3.1.3)

☐ 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? _____

### 3.1.3 Visiting Medical Officers (applicable for Australian EDs only)

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

Are VMOs (at FACEM level) currently employed within your ED?

☐ No (please go to section 3.2)

☐ Yes

For all VMOs (at FACEM level) employed by your ED, please provide the following information, *where applicable (if zero, please indicate '0')*:

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:
(please select all that apply)

☐ Fixed hours contract

☐ Zero hours contract

☐ Other (please explain below)

## 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 indicate '0')*:

| | **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 indicate '0':*

| | Funded but unfilled FTE | Funded but unfilled for more than 6 months FTE | Are you actively trying to fill this vacancy (Y/N) |
|---|---|---|---|
| Advanced trainees | | | Please select |
| Provisional 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) or Fellows of the Royal New Zealand College of General Practitioners (FRNZCGP) | |
| Fellows of the Australian College of Rural and Remote Medicine (ACCRM) or Fellow of the Division of Rural Hospital Medicine of New Zealand (FDRHMNZ) | |
| Fellow of the Royal New Zealand College of Urgent Care (FRNZCUC) (NZ only) | |
| 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.

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

| | **Adult/ Mixed ED** Head Count | **Total FTE** |
|---|---|---|
| Graduates of ACEM's EM Diploma | | |
| Graduates of ACEM's EM Certificate (excluding EM Diploma) | | |

### 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<br>(Including Clinical Nurse Consultant/ Specialist) | |
| Nurse Unit Managers | |
| Nursing Educators | |
| Mental Health nursing staff | |
| Total nursing staff<br>(Including the above nursing staff and any other nursing staff e.g., enrolled nurses and registered nurses) | |

## 6. ED Casemix

### 6.1 Attendances, admissions and transfers

For the period **1 July 2020- 30 June 2021**, please provide where applicable the total number of:
(*If not applicable write n/a*)

| | **Total** | **Adults** Incl. geriatric | **Paediatrics** ≤15 years* | **Geriatrics** ≥65 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 | | | | |
| Suspected COVID** (if captured by your EMR) | | | | |

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

*We acknowledge that some sites capture paediatric data using a different definition for paediatric patients, please provide paediatric data that fits within your definition.

** This includes cases of suspected COVID-19 that were confirmed by laboratory testing, those that produced a negative test result, and those where the result was inconclusive, unavailable or unspecified.

For the period **1 July 2020- 30 June 2021**, please provide where applicable the total number of:
(*If not applicable write n/a*)

| | **Total** |
|---|---|
| The total number of Aboriginal & Torres Strait Islander presentations for Australian EDs<br>OR the total number of Māori presentations for New Zealand EDs | |

## 6.2 ED Performance and Hospital Access Targets

For the period **1 July 2020- 30 June 2021**, 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 >24 hours | |

ACEM has developed 'Hospital Access Targets', a new access measure that describes three patient streams and sets distinct targets for those streams. For more information please see: https://acem.org.au/Content-Sources/Advancing-Emergency-Medicine/Better-Outcomes-for-Patients/Access-Block-(1)/Hospital-Access-Targets.

### 6.2.1 Patients needing to be admitted or transferred

For the period **1 July 2020- 30 June 2021**, please provide where applicable the total number of patients needing to be admitted to hospital or transferred to another hospital:
(*If not applicable write n/a*)

| | **Total** |
|---|---|
| The total number of patients needing to be admitted or transferred to another hospital | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than four (4) hours. | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than six (6) hours. | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than eight (8) hours. | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than twelve (12) hours. | |

#### 6.2.2 Discharged patients

For the period **1 July 2020- 30 June 2021**, please provide where applicable the total number of discharged patients:
(*If not applicable write n/a*)

| | **Total** |
|---|---|
| The total number of discharged patients | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than four (4) hours. | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than eight (8) hours. | |
| The total number who stayed in your ED (excluding SSU or equivalent) for no more than twelve (12) hours. | |

#### 6.2.3 Patients needing to be admitted to a SSU (or equivalent) for observation

For the period **1 July 2020- 30 June 2021**, please provide where applicable the total number of patients needing to be admitted to a SSU (or equivalent) for observation:
(*If not applicable write n/a*)

| | **Total** |
|---|---|
| The total number of patients needing to be admitted to a SSU (or equivalent) for observation | |
| The total number who stayed in your ED for no more than four (4) hours. | |
| The total number who stayed in your ED for no more than eight (8) hours. | |
| The total number who stayed in your ED for no more than twelve (12) hours. | |

### 6.3 Ambulance bypass and handover

For the period **1 July 2020- 30 June 2021**, 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 | |

## 6.4 Cultural capabilities

### 6.4.1 Indigenous Health

*According to the Australian Institute of Health and Welfare: Under-identification of Indigenous people in national health data sets is an ongoing challenge*

Please consider if the standard Indigenous status question is appropriately and reliably asked of all patients attending your ED and rate the quality and reliability of Indigenous status data collected in your ED using the scale provided:

| | 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

If you have access to an Indigenous Health Liaison Officer or equivalent in your ED: What is the availability of the Indigenous Health Liaison Officer(s) or equivalent in your ED:
(please select all that apply)

| | | **Day** | **Evening** | **Night** |
|---|---|---|---|---|
| On site | Monday to Friday | ☐ | ☐ | ☐ |
| | Saturday and Sunday | ☐ | ☐ | ☐ |
| Off site or on call | Monday to Friday | ☐ | ☐ | ☐ |
| | Saturday and Sunday | ☐ | ☐ | ☐ |
| Other, please specify: | | | | |

If you have access to an Indigenous Health Liaison Officer or equivalent in your ED: How often is the Indigenous Health Liaison Officer (or equivalent) asked to see patients in ED?

- ☐ Rarely
- ☐ Occasionally
- ☐ Sometimes
- ☐ Often
- ☐ Very often
- ☐ Unsure

Does your ED have any other Indigenous health or support workers (e.g. Peer Support Workers, Aboriginal Access Workers, Waiting Room Greeters) who operate in the ED or waiting room to support your Indigenous patients and carers?

- ☐ No
- ☐ Yes [If yes] Is it/ are they an identified position?
  - ☐ No
  - ☐ Yes

  Please describe what this/these role(s) are and how they operate in your ED/ waiting room:

Please describe any other activities or initiatives that focus on cultural safety for Indigenous patients and carers in your ED:

### 6.4.2 Culturally and Linguistically Diverse (CALD) and other diverse patients

Are interpreter services available to your ED patients:

- ☐ No
- ☐ Yes

If you have interpreter services: Are interpreter services available:

☐ 24 hours, 7 days a week

OR (please select all that apply)

| | Day | Evening | Night |
|---|---|---|---|
| Monday to Friday | ☐ | ☐ | ☐ |
| Saturday and Sunday | ☐ | ☐ | ☐ |

If you have interpreter services: Are the interpreter services available:

| | Pre-COVID Pandemic | During the COVID Pandemic |
|---|---|---|
| In person | ☐ | ☐ |
| Over the phone | ☐ | ☐ |
| Via video service | ☐ | ☐ |

If you have interpreter services: Prior to the COVID pandemic, please comment on any barriers to the use of this service in your ED, if applicable.

If you have interpreter services: How has the COVID-19 pandemic impacted the availability of interpreter services to your ED?

Does your ED have access to any other support workers for CALD and other diverse patients and carers (e.g., Cultural Liaison Officers, Waiting Room volunteers, Pastoral care) who operate in the ED or waiting room?

☐ No

☐ Yes [If yes] Please describe what this/these role(s) are and how they operate in your ED/ waiting room:

Please describe any other activities or initiatives in your ED that focus on cultural safety for diverse patients and carers, including CALD patients:

## 7. ED Staff Training

### 7.1 Cultural Competency Training

Is cultural competency training available to staff in your ED?

☐ Yes

☐ No [If no] Please provide the reason for why it is not available:

### 7.2 Discrimination, Bullying, Sexual Harassment and Harassment (DBSH) Training

Is DBSH training available to staff in your ED?

☐ Yes

☐ No [If no] Please provide the reason for why it is not available:

## 8. ED Resources

### 8.1 Beds and chairs

Please provide the number of beds and chairs, where applicable for the following areas:
*If zero, please indicate '0'.*

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

*If you have a separate paediatric allocation.

### 8.2 Sustainability

| | **Yes** | **No** |
|---|---|---|
| Do you have an Environmental Sustainability Officer or equivalent in your ED or hospital? | ☐ | ☐ |
| Do you have a formal Environmental Sustainability Plan or equivalent for your ED or hospital? | ☐ | ☐ |
| Have any efforts been made to quantify the carbon dioxide emissions ('carbon footprint') generated by your ED or hospital? | ☐ | ☐ |

### 8.3 Infection Control

| | **Total** |
|---|---|
| How many negative pressure rooms do you have in your ED? | |
| Of these, how many have anterooms? | |

## 9. Ultrasound Teaching

| | Total |
|---|---|
| How many ultrasound machines are currently in operation in your ED? | |

If you have ultrasound machines: How many FACEMs, PEM Specialists, FACEM trainees and SIMGs in your ED have met the ACEM guideline for credentialing (via either on-site credentialing or external qualifications) in:

| | Total |
|---|---|
| EFAST | |
| AAA | |
| Lung | |
| FELS | |
| Procedural guidance | |

Of those who are credentialed, how many FACEMs, PEM Specialists, FACEM trainees and SIMGs in your ED have formal ultrasound qualifications? (e.g., CCPU, DDU, RDMS)

_____

Do you keep a current list of all those that are credentialed for each modality?

☐ No

☐ Yes

If you have ultrasound machines: Does your ED have a clinical lead for ultrasound? (e.g., Director of Emergency Ultrasound or equivalent)

☐ No

☐ Yes **[If yes]** How many hours of Non-Clinical time per week are they allocated for this role? (includes scanning patients but not preforming their 'normal' emergency physician role):

_____

If you have ultrasound machines: Does your ED have a formal ultrasound training program?

- ☐ No, none
- ☐ No, informal teaching only
- ☐ Yes **[If yes]** What scans are FACEM trainees expected to gain proficiency in? (select all that apply):
  - ☐ AAA
  - ☐ EFAST
  - ☐ Procedural guidance
  - ☐ FELS
  - ☐ Lung
  - ☐ Early pregnancy
  - ☐ Biliary
  - ☐ Renal
  - ☐ Soft tissue
  - ☐ DVT
  - ☐ Other (please specify): _____
  - ☐ None

If you have ultrasound machines: What per cent of all ultrasound examinations in your ED currently undergo quality assurance review?

- ☐ 0%
- ☐ >0% and ≤25%
- ☐ >25% and ≤50%
- ☐ >50% and ≤75%
- ☐ >75% and <100%
- ☐ 100%

If you have ultrasound machines: Who else uses your ED ultrasound machine(s)? (select all that apply)

- ☐ Other medical staff (e.g., anaesthetists, cardiologists, ICU staff)
- ☐ Medical students
- ☐ Nurses
- ☐ Nurse practitioners
- ☐ Anaesthetic technicians
- ☐ Sonographers
- ☐ Echo cardiographers
- ☐ Other (please specify): _____
- ☐ No one else uses the ED ultrasound machine(s)

If you have any other comments to make about the ultrasound training in your ED, please provide them here:

| |
|---|
| |

## 10. Other Hospital Services

### 10.1 Cardiac Catheter Lab

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

### 10.2 Major Trauma Service

How many major trauma cases with an ISS>12 did your hospital treat in the 2020-21 financial year?

_____

Is your hospital designated as a Major Trauma Service?

☐ Yes

☐ No

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

Research-Evaluation@acem.org.au