

Australasian College for Emergency Medicine

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Report
June 2021

2020 Annual Site Census Part Two:
**Emergency department resources,
hospital services and networks**



Key findings: 2020 Annual Site Census

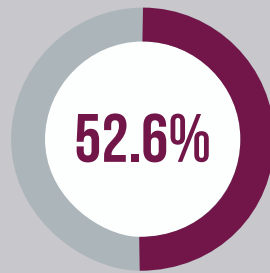
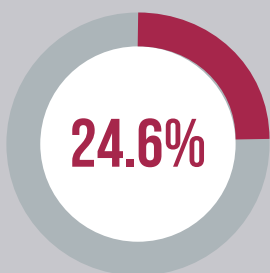
Part Two: emergency department resources, services and networks

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

Table 1 *Percent change in the average number of beds or chairs available within specific treatment spaces from 2016 to 2020*

| Treatment space | Australia (%) | Aotearoa NZ (%) |
|---|---------------|-----------------|
| Resuscitation | +8.1 | -16.0 |
| Adult and/or paediatric emergency/acute | +16.2 | -2.2 |
| Low acuity/sub-acute/fast-track | -2.2 | -10.4 |
| Short stay unit (or equivalent) | -1.8 | -13.6 |
| Mental health assessment | -11.6 | -1.4 |

Ninety-one per cent of emergency departments reported being part of a network



Designated Major Trauma Services Australian and Aotearoa New Zealand

Just under one-quarter and just over one-half of participating Australian and Aotearoa New Zealand emergency departments were designated Major Trauma Services.

Cardiac catheter laboratory

Half of Australian and just over half (52.6%) of Aotearoa New Zealand emergency departments reported having on-site cardiac catheter laboratory available for urgent percutaneous coronary intervention for ST-elevation myocardial Infarction.



For the full findings, please refer to:
Australasian College for Emergency Medicine (2021),
2020 Annual Site Census Part Two: resources, services and networks
Melbourne

jump to Part One

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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 to Directors of Emergency Medicine (DEMs) and Directors of Emergency Medicine Training (DEMTs) at all 150 of the ACEM accredited emergency departments (EDs) in September 2020. The Census is a combined initiative by the Research Unit within the Policy, Research and Partnerships Department, and the Accreditation Unit within the Education and Training Department. The Census focuses on ED staffing, casemix, staff training and resourcing, as well as broader hospital services available, with this report presenting the findings from the sections on ED resources, hospital services and networks.

1.2 Summary of Findings

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

1.2.1 ED Treatment Spaces

- All the responding EDs had adult and/or paediatric emergency/acute treatment spaces and all but one of the responding EDs had resuscitation treatment spaces. While 94.6% had low acuity, sub-acute or fast track treatment spaces, 85.2% had a Short Stay Unit (or equivalent), and 75.8% had an ED Mental Health Assessment Unit.
- Overall, Australian EDs had a higher number of beds/chairs to attendances, at one bed/chair per 1,225 attendances, compared with one per 1,305 attendances in New Zealand.

1.2.2 Hospital Networks

- Overall, 135 accredited EDs (91%) reported being part of a network, 43% were part of a rural network; 62% were part of a training network; and 43% reported being part of another network.

1.2.3 Hospital Services

- Just under one quarter of participating Australian EDs (24.6%) and just over half of New Zealand EDs (52.6%) were designated as a Major Trauma Service.
- Overall, 50.3% of EDs reported having an on-site cardiac catheter laboratory available for urgent Percutaneous Coronary Intervention for ST-Elevation Myocardial Infarction. The highest rates were in Major hospitals (93.5%) and Private hospitals (84.6%) in Australia and Metropolitan hospitals in New Zealand (85.7%).

2. Purpose and Scope

The purpose of this report is to provide the findings from the Australasian College for Emergency Medicine's (ACEM's) Annual Site Census, specifically on the sections relating to ED resources, hospital services and networks (formal and informal). The Census is distributed annually to all Australian and Aotearoa New Zealand emergency departments (EDs) accredited by ACEM and is a joint initiative between the Research Unit within the Policy, Research and Partnerships Department and the Accreditation Unit within the Education and Training Department. Findings from the Census are used to monitor accredited sites as well as provide an evidence-base for ACEM policy and advocacy activities relating to ED workforce and functioning.

3. Methodology

The Census is a mandatory activity for accredited sites to complete and was distributed via email to all 150 accredited EDs in Australia and New Zealand in September 2020. The Census contained questions on ED staffing, activity, resources and services. ED activity and performance data was sought for the period 1 July 2019 to 30 June 2020, with all other data being current at the time of completing the survey. For a full methodology see part one of the report (ACEM, 2021). Refer to Appendix 1 for the survey tool.

4. Results

This section presents the findings from the 2020 Annual Site Census and includes findings relating to ED treatment spaces and hospital services, as well as ED networks.

4.1 Profile of Participating EDs

Of the 150 EDs that were asked to complete the Census, 149 submitted one. Table 1 displays the breakdown of responding EDs by region in Australia and New Zealand, and further breakdown by peer group within each region.

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

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

4.2 ED treatment spaces

All EDs reported having adult and/or paediatric emergency or acute spaces (Table 2), and all but one ED reported having resuscitation treatment spaces. During the survey period some sites contacted the research team and commented that this section was difficult to complete as they had to restructure their ED during 2020 due to the COVID-19 pandemic. Most of the accredited EDs in Australia and New Zealand reported having low acuity, sub-acute or fast track spaces (95.4% (124/130) and 89.5% (17/19) respectively) and an SSU or equivalent treatment space (84.6% (110/130) and 89.5% (17/19) respectively). A lower proportion of accredited EDs in Australia (75.4% (98/130)) and New Zealand (78.9% (15/19)) reported having mental health assessment treatment spaces.

Table 2 EDs with specific treatment spaces and average number of beds or chairs available within each treatment space (range in brackets), by region.

| Region | Resuscitation | | Adult and/or Paediatric Emergency/Acute | | Low acuity/sub-acute/fast-track | | SSU (or equivalent) | | ED mental health assessment | |
|-------------|---------------|---------------------|---|-----------------------|---------------------------------|-----------------------|---------------------|-----------------------|-----------------------------|---------------------|
| | n | mean (range) | n | mean (range) | n | mean (range) | n | mean (range) | n | mean (range) |
| Australia | 129 | 3.4 (1.0 - 15.0) | 130 | 21.5 (4.0 - 49.0) | 124 | 9.1 (3.0 - 24.0) | 110 | 11.4 (2.0 - 32.0) | 98 | 2.1 (1.0 - 12.0) |
| NSW | 42 | 3.0 (1.0 - 6.0) | 42 | 20.3 (6.0 - 42.0) | 41 | 10.7 (4.0 - 24.0) | 32 | 8.1 (4.0 - 15.0) | 35 | 1.6 (1.0 - 6.0) |
| VIC | 30 | 3.5 (1.0 - 9.0) | 31 | 22.9 (9.0 - 47.0) | 29 | 6.5 (3.0 - 13.0) | 27 | 13.8 (4.0 - 32.0) | 22 | 2.0 (1.0 - 6.0) |
| QLD | 29 | 3.8 (1.0 - 14.0) | 29 | 19.8 (4.0 - 41.0) | 26 | 9.8 (3.0 - 21.0) | 25 | 13.6 (2.0 - 27.0) | 18 | 2.6 (1.0 - 9.0) |
| WA | 12 | 4.8 (1.0 - 15.0) | 12 | 22.6 (9.0 - 36.0) | 12 | 8.2 (4.0 - 16.0) | 11 | 12.1 (4.0 - 23.0) | 9 | 3.6 (1.0 - 12.0) |
| SA | 8 | 2.8 (2.0 - 6.0) | 8 | 23.9 (10.0 - 38.0) | 8 | 10.1 (4.0 - 14.0) | 7 | 10.0 (5.0 - 14.0) | 6 | 1.8 (1.0 - 3.0) |
| TAS | 3 | 3.0 (2.0 - 4.0) | 3 | 22.3 (8.0 - 31.0) | 3 | 8.3 (4.0 - 16.0) | 3 | 7.3 (4.0 - 10.0) | 3 | 1.3 (1.0 - 2.0) |
| ACT | 2 | 3.5 (2.0 - 5.0) | 2 | 34.0 (19.0 - 49.0) | 2 | 12.0 (11.0 - 13.0) | 2 | 15.5 (12.0 - 19.0) | 2 | 2.5 (1.0 - 4.0) |
| NT | 3 | 2.3 (2.0 - 3.0) | 3 | 21.3 (18.0 - 27.0) | 3 | 7.7 (6.0 - 11.0) | 3 | 9.3 (8.0 - 12.0) | 3 | 2.0 (1.0 - 4.0) |
| New Zealand | 19 | 3.5 (2.0 - 10.0) | 19 | 21.3 (7.0 - 47.0) | 17 | 7.5 (2.0 - 16.0) | 17 | 8.7 (4.0 - 36.0) | 15 | 1.5 (1.0 - 3.0) |
| Total | 148 | 3.4 (1.0 - 15.0) | 149 | 21.5 (4.0 - 49.0) | 141 | 8.9 (2.0 - 24.0) | 127 | 11.1 (2.0 - 36.0) | 113 | 2.0 (1.0 - 12.0) |

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

Table 3 reports on specific ED treatment spaces and the average number of beds/ chairs available within these treatment spaces by hospital peer group. All New Zealand Metropolitan and Australian Specialist EDs reported having mental health assessment treatment spaces whereas only 67.7% (8/12) of New Zealand Regional and 76.6% (36/47) of metropolitan EDs in Australia reported having mental health assessment spaces in their EDs.

Table 3 EDs with specific treatment spaces and average number of beds or chairs available within each treatment space (range in brackets), by hospital peer group.

| Hospital peer group | Resuscitation | | Adult and/or Paediatric Emergency/Acute | | Low acuity/sub-acute/fast-track | | SSU (or equivalent) | | ED mental health assessment | |
|------------------------------|---------------|---------------------|---|-----------------------|---------------------------------|----------------------|---------------------|----------------------|-----------------------------|---------------------|
| | n | mean (range) | n | mean (range) | n | mean (range) | n | mean (range) | n | mean (range) |
| Australia | | | | | | | | | | |
| <i>Major</i> | 31 | 5.5 (2.0 - 15.0) | 31 | 29.2 (14.0 - 49.0) | 31 | 12.5 (3.0 - 24.0) | 30 | 14.7 (4.0 - 24.0) | 26 | 2.7 (1.0 - 8.0) |
| <i>Large metropolitan</i> | 31 | 3.2 (1.0 - 6.0) | 31 | 25.4 (6.0 - 41.0) | 29 | 9.4 (3.0 - 16.0) | 28 | 13.1 (5.0 - 32.0) | 23 | 2.5 (1.0 - 12.0) |
| <i>Medium metropolitan</i> | 15 | 2.7 (1.0 - 6.0) | 16 | 19.4 (8.0 - 42.0) | 15 | 9.3 (4.0 - 17.0) | 14 | 10.2 (4.0 - 16.0) | 13 | 1.5 (1.0 - 3.0) |
| <i>Large regional</i> | 23 | 2.8 (2.0 - 6.0) | 23 | 16.4 (8.0 - 32.0) | 23 | 7.9 (4.0 - 13.0) | 21 | 9.1 (4.0 - 20.0) | 22 | 1.7 (1.0 - 4.0) |
| <i>Small/medium regional</i> | 10 | 2.4 (1.0 - 5.0) | 10 | 9.5 (4.0 - 18.0) | 10 | 5.7 (3.0 - 8.0) | 7 | 5.1 (3.0 - 10.0) | 8 | 1.4 (1.0 - 2.0) |
| <i>Private</i> | 13 | 1.8 (1.0 - 4.0) | 13 | 14.9 (6.0 - 31.0) | 10 | 4.6 (3.0 - 10.0) | 5 | 4.0 (2.0 - 6.0) | 0 | |
| <i>Specialist</i> | 6 | 3.3 (2.0 - 5.0) | 6 | 21.7 (11.0 - 33.0) | 6 | 8.3 (4.0 - 12.0) | 5 | 11.6 (8.0 - 18.0) | 6 | 1.8 (1.0 - 3.0) |
| New Zealand | | | | | | | | | | |
| <i>Metropolitan</i> | 7 | 4.9 (3.0 - 10.0) | 7 | 30.3 (14.0 - 47.0) | 7 | 8.1 (4.0 - 16.0) | 7 | 13.1 (5.0 - 36.0) | 7 | 1.7 (1.0 - 3.0) |
| <i>Regional</i> | 12 | 2.7 (2.0 - 5.0) | 12 | 16.0 (7.0 - 45.0) | 10 | 7.1 (2.0 - 16.0) | 10 | 5.6 (4.0 - 10.0) | 8 | 1.4 (1.0 - 2.0) |

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

This year we have compared the average number of beds or chairs available within specific treatment spaces, total number of beds/chairs, and the ratio of beds/chairs to patient attendances between 2016 and 2020. Data from 2016 was chosen for comparison as the Census prior to 2016 was not mandatory for sites to complete and as such the data is incomplete.

Results from the comparative analysis of the number of beds/chairs in specific treatment spaces are displayed in Figure 1 by country and Table 4 by region. Accredited EDs in New Zealand have reported a decrease in the average number of beds or chairs available across all reported treatment spaces compared with what was reported in 2016, whereas Australian EDs reported a decrease in low acuity and Short Stay Units (Figure 1 and Table 4).

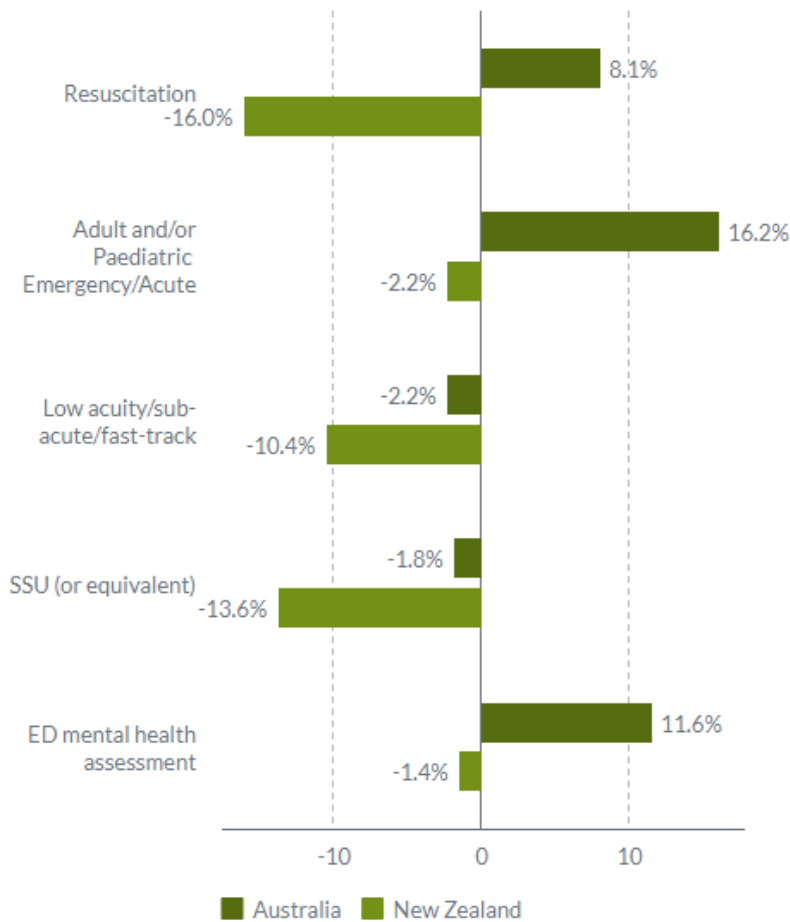


Figure 1 Percentage change in the average number of beds or chairs available within specific treatment spaces between 2016 and 2020, by country.

At a regional level, the highest percentage increase in average beds/ chairs available across treatment spaces was observed in Queensland for ED mental health assessment treatment spaces, up 74.1% between 2016 and 2020, while the largest decrease in average beds/ chairs available was observed for resuscitation treatment spaces in the Northern Territory, down 49.4%.

Table 4 Percentage change in the average number of beds or chairs available within specific treatment spaces from 2016 to 2020, by region.

| Region | Resuscitation % | Adult and/or Paediatric Emergency/Acute % | Low acuity/sub- acute/fast-track % | SSU (or equivalent) % | ED mental health assessment % | Average across treatment spaces % |
|-------------|--------------------|---|--|-----------------------------|-------------------------------------|---|
| Australia | 8.1% | 16.2% | -2.2% | -1.8% | 11.6% | 6.4% |
| NSW | 18.1% | -7.6% | 1.5% | -29.3% | -34.9% | -10.4% |
| VIC | 32.5% | 26.9% | -39.1% | 57.6% | 35.3% | 22.6% |
| QLD | 51.7% | -25.3% | 3.6% | 69.5% | 74.1% | 34.7% |
| WA | 36.4% | 28.9% | -5.0% | -15.0% | 28.6% | 14.8% |
| SA | 22.2% | 17.9% | 8.0% | 5.3% | 16.7% | 14.0% |
| TAS | 0.0% | 11.7% | 0.0% | -26.7% | -33.3% | -9.7% |
| ACT | 6.5% | 73.1% | 70.6% | 12.3% | 41.7% | 40.8% |
| NT | -49.4% | 29.0% | -35.7% | -16.7% | 9.1% | -12.7% |
| New Zealand | -16.0% | -2.2% | -10.4% | -13.6% | -1.4% | -8.7% |
| Total | 3.6% | 13.8% | -2.9% | -3.0% | 12.1% | 4.7% |

Note: The largest increase and decrease are highlighted for each treatment space.

Results from the comparative analysis of the number of beds/chairs and the ratio of beds/chairs to patient attendances are presented in Table 5 by region and Figure 2 by region and country. Overall Australian EDs had a higher number of beds or chairs to attendance at 1225 attendances per one bed/ chair, compared with New Zealand EDs (1305 attendances per one bed/ chair). In Australia, the Northern Territory had the lowest number of annual presentations per bed/ chairs at 1003 patient attendances per one bed/ chair, while Queensland had the highest number, at 1376 attendances per bed/ chair. Queensland also saw the greatest percentage increase between 2016 and 2020, in the ratio of attendances per beds/chairs. Although the Australian Capital Territory reported a 40.9% increase in the number of patient attendances per beds/chairs, their ratio is the second lowest across all regions in Australia.

Table 5 The ratio of ED beds/ chairs across all reported treatment spaces to total ED attendance, by region.

| Region | 2016 | | 2020 | | % Change in... |
|-------------|----------------------------|--|----------------------------|--|---|
| | Number of chairs/beds n | Ratio of ED beds/chairs: attendance | Number of chairs/beds n | Ratio of ED beds/chairs: attendance | Ratio of ED beds/chairs: attendance % |
| Australia | 5075 | 1: 1236 | 5833 | 1 : 1225 | -0.9% |
| NSW | 1524 | 1: 1257 | 1732 | 1 : 1269 | 1.0% |
| VIC | 1214 | 1: 1176 | 1419 | 1 : 1095 | -6.9% |
| QLD | 1159 | 1: 1257 | 1326 | 1 : 1376 | 9.5% |
| WA | 553 | 1: 1316 | 591 | 1 : 1234 | -6.2% |
| SA | 323 | 1: 1285 | 375 | 1 : 1106 | -13.9% |
| TAS | 108 | 1: 1215 | 127 | 1 : 1099 | -9.5% |
| ACT | 98 | 1: 740 | 135 | 1 : 1043 | 40.9% |
| NT | 96 | 1: 1173 | 128 | 1 : 1003 | -14.5% |
| New Zealand | 669 | 1: 1268 | 769 | 1 : 1305 | 2.9% |
| Total | 5744 | 1: 1239 | 6602 | 1 : 1235 | -0.3% |


Note: Increases in the number patient attendances per beds/ chairs of over 5% are highlighted by colour change of text, with the largest increase and decrease bolded.

By region

Australian Capital Territory

40.9 % 

Increase in the number of ED patient attendances per bed or chair since 2016


9.5%  VIC

1.0%  NSW

Northern Territory

14.5% 

Decrease in the number of ED patient attendances per bed or chair since 2016

13.9%  SA

9.5%  TAS

6.9%  VIC

6.2%  WA

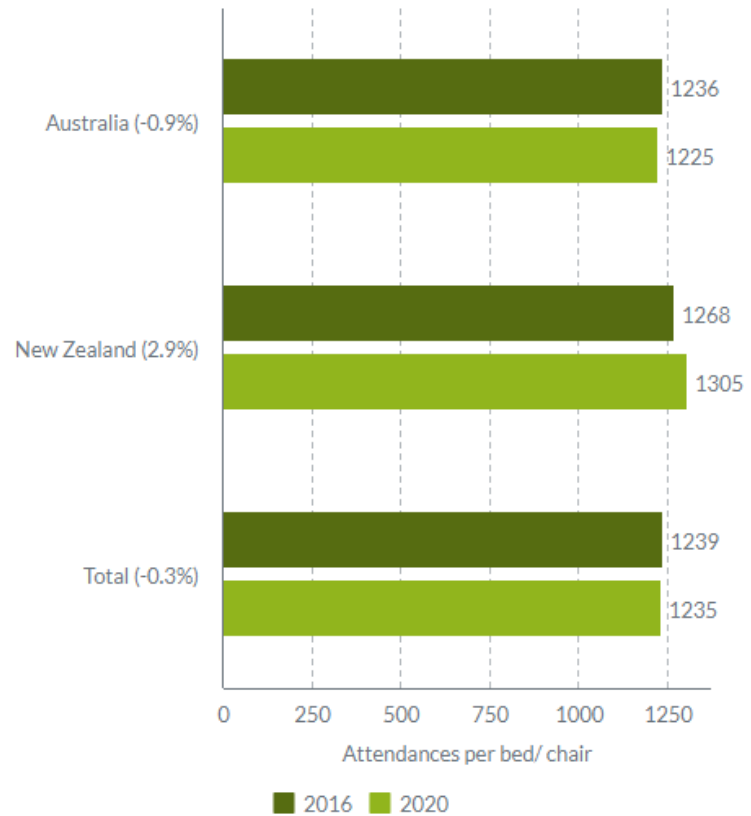


Figure 2 Percentage change in the ratio of beds/chairs to patient attendances from 2016 to 2020, by region and country.

While overall there was a slight decrease in the number of patient attendances per bed/chair this needs to be understood within the context of the COVID pandemic and associated restrictions, which resulted in a decrease in patient attendances between 2018-19 and 2019-20 (a decrease of 3.6% in total patient attendances) (Australian Institute of Health and Welfare, 2021) (Allen M., 2021).

Table 6 presents the ratio of ED beds/ chairs across all ED treatment spaces to total ED attendances, by hospital peer group. Private EDs in Australia reported more ED beds/ chairs per attendance, at a ratio of 991 attendances per one bed/ chair, compared to the other peer groups. However, regionally located EDs in Australia and New Zealand reported fewer ED beds/ chairs per attendance.

Table 6 The ratio of ED beds/ chairs across all reported treatment spaces to total ED attendance, by hospital peer group.

| Hospital peer group | Number of chairs/beds n | Ratio of ED beds/chairs: attendance |
|-----------------------|----------------------------|--|
| Australia | | |
| Major | 1970 | 1 : 1234 |
| Large metropolitan | 1584 | 1 : 1350 |
| Medium metropolitan | 651 | 1 : 1120 |
| Large regional | 853 | 1 : 1195 |
| Small/medium regional | 223 | 1 : 1401 |
| Private | 283 | 1 : 911 |
| Specialist | 269 | 1 : 1307 |
| New Zealand | | |
| Metropolitan | 407 | 1 : 1170 |
| Regional | 362 | 1 : 1384 |

4.3 Formal and Informal Networks

A key priority for ACEM is to understand Emergency Medicine (EM) networks - rural, training and other clinical networks our accredited EDs have with other EDs, hospitals or smaller facilities providing emergency care. As such, questions on networks both formal and informal were included in the 2020 Annual Site Census and are reported on in this section.

A breakdown of the percentage of EDs that reported being a part of any type of network and the proportion that were part of a rural network, training network and/or another network, by region are displayed in Table 7 and by hospital peer group in Table 8.

- 135 accredited EDs or 91% reported being part of a network
 - 43% (n=64) were part of a rural network;
 - 62% (n=92) were part of a training network;
 - 43% (n=64) reported being part of another network.

Table 7 Percentage of EDs that reported being a part of a network and the proportion that were part of a rural network, training network and/or another network, by region.

| Region | N | ED is part of ... | | | |
|--------------------|-----|-------------------|-----------------------|--------------------------|-----------------------|
| | | any network % | a rural network* % | a training network* % | another network* % |
| Australia | 130 | 91.5% | 43.8% | 66.9% | 39.2% |
| NSW | 42 | 100.0% | 50.0% | 88.1% | 47.6% |
| VIC | 31 | 93.5% | 48.4% | 61.3% | 45.2% |
| QLD | 29 | 89.7% | 41.4% | 65.5% | 17.2% |
| WA | 12 | 58.3% | 33.3% | 16.7% | 33.3% |
| SA | 8 | 100.0% | 12.5% | 100.0% | 37.5% |
| NT | 3 | 100.0% | 100.0% | 66.7% | 33.3% |
| TAS | 3 | 66.7% | 33.3% | 0.0% | 66.7% |
| ACT | 2 | 100.0% | 0.0% | 0.0% | 100.0% |
| New Zealand | 19 | 84.2% | 36.8% | 26.3% | 68.4% |
| Total | 149 | 90.6% | 43.0% | 61.7% | 43.0% |

Note: *Option not exclusive, as multiple options could be selected.

Regional EDs in Australia and New Zealand were much more likely to be part of a rural network and Medium metropolitan EDs were more likely to be part of a training network. Interestingly, only 8.3% of Regional EDs in New Zealand reported being part of a training network.

Table 8 Percentage of EDs that reported being a part of a network and the proportion that were part of a rural network, training network and/or another network, by hospital peer group.

| Hospital peer group | N | ED is part of ... | | | |
|-------------------------------|-----|-------------------|------------------|---------------------|------------------|
| | | any network | a rural network* | a training network* | another network* |
| | | % | % | % | % |
| Australia | 130 | 91.5% | 43.8% | 66.9% | 39.2% |
| <i>Major</i> | 31 | 87.1% | 45.2% | 77.4% | 38.7% |
| <i>Large metropolitan</i> | 31 | 90.3% | 25.8% | 67.7% | 48.4% |
| <i>Medium metropolitan</i> | 16 | 100.0% | 25.0% | 87.5% | 18.8% |
| <i>Large regional</i> | 23 | 100.0% | 91.3% | 52.2% | 39.1% |
| <i>Small/ medium regional</i> | 10 | 100.0% | 70.0% | 70.0% | 30.0% |
| <i>Private</i> | 13 | 84.6% | 7.7% | 53.8% | 46.2% |
| <i>Specialist</i> | 6 | 66.7% | 33.3% | 33.3% | 50.0% |
| New Zealand | 19 | 84.2% | 36.8% | 26.3% | 68.4% |
| <i>Metropolitan</i> | 7 | 71.4% | 0.0% | 57.1% | 42.9% |
| <i>Regional</i> | 12 | 91.7% | 58.3% | 8.3% | 83.3% |

Note: *Option not exclusive, as multiple options could be selected.

4.3.1 EM Rural networks

According to ACEMs Statement on the Delineation of Emergency Departments (S27) (ACEM, 2019): An EM rural network is a grouping of regional and/or metropolitan hospitals and the smaller rural facilities to which they provide support. This includes clinical support, professional development and continuing education, telephone advice, telemedicine and medical retrievals. EDs who indicated that they were not part of an EM rural network were asked why, and those who indicated that they were part of an EM rural network were asked to describe their rural network, including what works well and what does not work well. Responses are summarised below.

Sixty-four EDs indicated that they were part of an EM rural network. The percentage of EDs that were part of a rural network and the type of EM rural network(s) they were part of are presented below, by region in Table 9 and by hospital peer group in Table 10.

- 94% (n=60) reported that their rural network included a patient pathway/ transfer agreement;
- 48% (n=31) reported that their network included a telehealth support agreement.

Table 9 Percentage of EDs that were part of a rural network and the type of EM rural network(s) they were part of, by region.

| Region | ED is part of a rural network | | Type of rural network* | | | | |
|-------------|-------------------------------|--------|------------------------|--------------------------------|---------------------------------------|--------------------------------------|--------------------------|
| | N | % | n | Telehealth support agreement % | Patient pathway/ transfer agreement % | Joint quality and safety processes % | Other EM rural network % |
| Australia | 130 | 43.8% | 57 | 54.4% | 94.7% | 49.1% | 12.3% |
| NSW | 42 | 50.0% | 21 | 57.1% | 90.5% | 52.4% | 4.8% |
| VIC | 31 | 48.4% | 15 | 40.0% | 100.0% | 20.0% | 13.3% |
| QLD | 29 | 41.4% | 12 | 83.3% | 91.7% | 66.7% | 33.3% |
| WA | 12 | 33.3% | 4 | 50.0% | 100.0% | 50.0% | 0.0% |
| SA | 8 | 12.5% | 1 | 0.0% | 100.0% | 0.0% | 0.0% |
| NT | 3 | 100.0% | 3 | 33.3% | 100.0% | 100.0% | 0.0% |
| TAS | 3 | 33.3% | 1 | 0.0% | 100.0% | 100.0% | 0.0% |
| ACT | 2 | 0.0% | 0 | n.d. | n.d. | n.d. | n.d. |
| New Zealand | 19 | 36.8% | 7 | 0.0% | 85.7% | 42.9% | 57.1% |
| Total | 149 | 43.0% | 64 | 48.4% | 93.8% | 48.4% | 17.2% |

Notes: *Option not exclusive, as multiple options could be selected. n.d. = no data.

Large regional EDs were more likely to report having a telehealth agreement in place as part of their rural network while Small/ medium regional EDs were more likely to report having joint quality and safety processes in place as part of their rural network.

Table 10 Percentage of EDs that were part of a rural network and the type of EM rural network(s) they were a part of, by hospital peer group.

| Hospital Peer Group | ED is part of a rural network | | Type or rural network* | | | | |
|------------------------|-------------------------------|-------|------------------------|--------------------------------|---------------------------------------|--------------------------------------|--------------------------|
| | N | % | n | Telehealth support agreement % | Patient pathway/ transfer agreement % | Joint quality and safety processes % | Other EM rural network % |
| Australia | 130 | 43.8% | 57 | 54.4% | 94.7% | 49.1% | 12.3% |
| Major | 31 | 45.2% | 14 | 50.0% | 92.9% | 35.7% | 14.3% |
| Large metropolitan | 31 | 25.8% | 8 | 37.5% | 87.5% | 25.0% | 12.5% |
| Medium metropolitan | 16 | 25.0% | 4 | 50.0% | 100.0% | 50.0% | 0.0% |
| Large regional | 23 | 91.3% | 21 | 66.7% | 95.2% | 61.9% | 14.3% |
| Small/ medium regional | 10 | 70.0% | 7 | 57.1% | 100.0% | 85.7% | 0.0% |
| Private | 13 | 7.7% | 1 | 0.0% | 100.0% | 0.0% | 100.0% |
| Specialist | 6 | 33.3% | 2 | 50.0% | 100.0% | 0.0% | 0.0% |
| New Zealand | 19 | 36.8% | 7 | 0.0% | 85.7% | 42.9% | 57.1% |
| Metropolitan | 7 | 0.0% | 0 | n.d. | n.d. | n.d. | n.d. |
| Regional | 12 | 58.3% | 7 | 0.0% | 85.7% | 42.9% | 57.1% |

Notes: *Option not exclusive, as multiple options could be selected. n.d. = no data.

Of the 85 EDs that were not part of a rural network, 48 commented on why this was the case, with three responding that they were unsure. Of the 45 remaining responses:

- 38% (n=17) commented that they could not be part of rural network due to their location;
- 31% (n=14) reported being part of an informal rural network;
- 16% (n=7) commented that they have no formal arrangement in place;
- 11% (n=5) were private EDs;
- 22% (n=10) made other comments such as:
 - they were in the process of/ were interested in developing a rural network;
 - being a part of a rural network is not required;
 - lack of capacity or funding.

Eleven EDs indicated that they were part of another type of EM rural network, with ten describing what this involved. General telehealth, staff/ trainee rotations and teaching and education, were the main other types of EM rural networks in place.

The 64 EDs that indicated that they were part of an EM rural network were asked what works well with their EM rural network, with 52 providing a response. Responses included:

- Patient transfers, retrievals and referrals, 52% ($n=27$)
- Telehealth support, 35% ($n=18$)
- Training support/ opportunities, 31% ($n=16$)
- Regular meetings, 10% ($n=5$)
- 35% ($n=18$) indicated other aspects such as communication, collaboration and relationships with networked sites.

Forty of the 64 EDs that were part of an EM rural network described aspects that did not work well, with:

- 55% ($n=22$) indicating that aspects of patient transfers, retrievals and referrals required improvement and/ or reported issues such as inappropriate or delays with transfers, and issues with mental health transfers/referrals.
- 28% ($n=11$) reporting challenges with access block and bed block and a desire to improve patient flow and the admission process.
- 20% ($n=8$) reporting that the provision of telehealth needed to be improved and reported issues with technology.
- 15% ($n=6$) indicating that staffing needed improvement, experiencing issues such as staff with low skill level and high turnover.
- 25% ($n=10$) reporting other challenges such as competing demands when delivering support and varying levels of support within their network.

4.3.2 EM training networks

An EM training network is defined as a group of hospitals that have formally agreed to a coordinated education and training program for EM trainees. Sites who indicated that they were not part of an EM training network were asked why, and those who indicated that they were part of an EM training network were asked to describe their training network, including what works well and what does not work well.

Overall, 92 EDs (62%) were a part of an EM training network. The percentage of EDs that were part of an EM training network and the type of EM training network(s) they were part of are presented below, by region in Table 11 and by hospital peer group in Table 12.

A total of 72% (n=66) of sites reported that they were part of the EMET program in providing education and 65% (n=60) reported that trainees rotated to smaller sites as part of their training.

Table 11 Percentage of EDs that were part of an EM training network and the type of EM training network(s) they were a part of, by region.

| Region | ED is part of an EM training network | | Type of training network | | | | | |
|-------------|--------------------------------------|--------|---|--|---|---|---------------------------|-------|
| | N | % | Senior staff rotated to smaller site(s) | Trainees rotated to smaller site(s) for emergency rotation | Trainees rotated to smaller site(s) for non-emergency rotations | Provide education as part of EMET network | Other EM training network | |
| | | | n | % | % | % | % | |
| Australia | 130 | 66.9% | 87 | 27.6% | 64.4% | 39.1% | 70.1% | 21.8% |
| NSW | 42 | 88.1% | 37 | 24.3% | 67.6% | 48.6% | 64.9% | 24.3% |
| VIC | 31 | 61.3% | 19 | 31.6% | 73.7% | 52.6% | 94.7% | 10.5% |
| QLD | 29 | 65.5% | 19 | 26.3% | 52.6% | 15.8% | 63.2% | 21.1% |
| WA | 12 | 16.7% | 2 | 0.0% | 50.0% | 0.0% | 50.0% | 50.0% |
| SA | 8 | 100.0% | 8 | 37.5% | 62.5% | 37.5% | 50.0% | 37.5% |
| NT | 3 | 66.7% | 2 | 50.0% | 50.0% | 0.0% | 100.0% | 0.0% |
| TAS | 3 | 0.0% | 0 | n.d. | n.d. | n.d. | n.d. | n.d. |
| ACT | 2 | 0.0% | 0 | n.d. | n.d. | n.d. | n.d. | n.d. |
| New Zealand | 19 | 26.3% | 5 | 0.0% | 80.0% | 40.0% | 100.0% | 0.0% |
| Total | 149 | 61.7% | 92 | 26.1% | 65.2% | 39.1% | 71.7% | 20.7% |

Notes: *Option not exclusive, as multiple options could be selected. n.d. = no data.

Table 12 Percentage of EDs that were part of an EM training network and the type of EM training network(s) they were a part of, by hospital peer group.

| Hospital Peer Group | ED is part of an EM training network | | Type of training network | | | | | |
|------------------------|--------------------------------------|-------|---|--|---|---|---------------------------|-------|
| | N | % | Senior staff rotated to smaller site(s) | Trainees rotated to smaller site(s) for emergency rotation | Trainees rotated to smaller site(s) for non-emergency rotations | Provide education as part of EMET network | Other EM training network | |
| | | | n | % | % | % | % | % |
| Australia | 130 | 66.9% | 87 | 27.6% | 64.4% | 39.1% | 70.1% | 21.8% |
| Major | 31 | 77.4% | 24 | 37.5% | 91.7% | 50.0% | 66.7% | 20.8% |
| Large metropolitan | 31 | 67.7% | 21 | 23.8% | 61.9% | 33.3% | 61.9% | 33.3% |
| Medium metropolitan | 16 | 87.5% | 14 | 35.7% | 64.3% | 64.3% | 85.7% | 7.1% |
| Large regional | 23 | 52.2% | 12 | 25.0% | 33.3% | 25.0% | 66.7% | 16.7% |
| Small/ medium regional | 10 | 70.0% | 7 | 28.6% | 57.1% | 28.6% | 57.1% | 28.6% |
| Private | 13 | 53.8% | 7 | 0.0% | 42.9% | 0.0% | 85.7% | 28.6% |
| Specialist | 6 | 33.3% | 2 | 0.0% | 50.0% | 50.0% | 100.0% | 0.0% |
| New Zealand | 19 | 26.3% | 5 | 0.0% | 80.0% | 40.0% | 100.0% | 0.0% |
| Metropolitan | 7 | 57.1% | 4 | 0.0% | 100.0% | 50.0% | 100.0% | 0.0% |
| Regional | 12 | 8.3% | 1 | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% |

Notes: *Option not exclusive, as multiple options could be selected. n.d. = no data.

Fifty-one of the 57 EDs who were not part of an EM training network described why they were not part of a training network, with:

- 39% (n=20) reporting that they were part of an informal training network.
- 37% (n=19) reporting that there was no formal or informal training network as there was no requirement for one, no support structure and no opportunity to establish an EM training network.
- 22% (n=11) reporting that they would like to establish a formal/informal training network.
- 20% (n=10) indicating that they provide their training locally.
- 12% (n=6) reporting that geographic isolation impacts their ability to be a part of an EM training network.

Nineteen EDs indicated that they were part of another EM training network, with 16 describing this. Descriptions included, trainee(s) were rotated to other sites in the network, training or exam preparation opportunities were available within the network and more generally, staff rotated to other sites in the network.

Eighty-one of the 92 EDs that reported being a part of an EM training network(s) described what works well, including:

- Collaboration, coordination and/or connection, 52% ($n=42$);
- Shared resources, 49% ($n=40$);
- Training and/or training opportunities, 42% ($n=34$);
- Staff rotation, 23% ($n=19$);
- Variety of casemix, different environment and different teaching styles, 19% ($n=15$).

Forty-four of the 92 EDs that reported being part of an EM training network(s) described what does not work well with their EM training network with:

- 55% ($n=24$) reporting issues relating to collaboration and training provision;
- 50% ($n=22$) reporting issues relating to trainees, such as
 - filling trainee positions, which was mostly reported by regional and small EDs, but also reported by some major and metropolitan EDs;
 - unequal distribution of trainees across networked sites;
 - issues with obtaining registrar/trainee rotations;
 - desire for networked recruitment.
- 14% ($n=6$) reported other workforce issues, such as delivering education in smaller sites, difficulties engaging FACEMs in teaching and difficulties freeing up FACEMs to teach.

4.3.3 Other EM Networks

Accredited EDs were asked if they belonged to any other networks, such as clinical, clinical support, formal or informal networks. Overall, 64 EDs indicated that they were part of another network, which included:

- 39% ($n=25$) were part of an emergency network;
- 25% ($n=16$) reported being part of informal training or support networks;
- 19% ($n=12$) reported having informal or formal staff/trainee rotations;
- 19% ($n=12$) indicated that they were part of a health service/district health board networked site;
- 17% ($n=11$) reported being part of a specialist specific network, e.g., paediatrics, stroke;
- 16% ($n=10$) reported their network was based on Fellowship exam practice or teaching.

4.4 Hospital Services

This section presents data on accredited EDs with a Major Trauma Service and those with an on-site Cardiac Catheter Laboratory available for urgent Percutaneous Coronary Intervention (PCI) for ST-Elevation Myocardial Infarction (STEMI), as well as on the number of specialty services available on-site.

Just under one quarter of accredited Australian EDs (24.6%) and over half of New Zealand EDs (52.6%) were designated as a Major Trauma Service (Table 13). Only 12.9% of Victorian, 16.7% of Western Australian and 17.2% of Queensland EDs were designated as a Major Trauma Service. With respect to Cardiac Catheter Labs providing urgent PCI for STEMI, half of Australian and 52.6% of New Zealand EDs had this available on-site.

Table 13 The percentage of hospitals with an on-site Cardiac Catheter Laboratory providing urgent PCI for STEMI, the percentage with a Major Trauma Service and the number of major trauma cases treated with an injury severity score (ISS) of greater than 12*, by region.

| Region | On-site Cardiac Catheter Lab for urgent PCI for STEMI % | Designated as Major Trauma Service % | Major trauma cases treated with an ISS>12 mean (range) |
|-------------|---|--------------------------------------|--|
| Australia | 50.0% | 24.6% | 327.5 (32 - 1272) |
| NSW | 54.8% | 31.0% | 221.4 (52 - 601) |
| VIC | 61.3% | 12.9% | 645.0 (118 - 1272) |
| QLD | 41.4% | 17.2% | 349.3 (104 - 500) |
| WA | 41.7% | 16.7% | 487.0 (76 - 898) |
| SA | 37.5% | 37.5% | 220.0 (32 - 413) |
| TAS | 66.7% | 66.7% | |
| ACT | 50.0% | 50.0% | 305.0 (305 - 305) |
| NT | 0.0% | 66.7% | 163.0 (163 - 163) |
| New Zealand | 52.6% | 52.6% | 200.7 (46 - 432) |
| Total | 50.3% | 28.2% | 292.3 (32 - 1272) |

Notes: * ISS = injury severity score, for major trauma cases presenting to EDs with a major trauma service during the period 1 July 2019 to 30 June 2020. Where no mean or range is provided, $n \leq 1$ or there is no variation from the mean.

Table 14 shows this data by hospital peer group. In Australia, only EDs at Specialist (100.0%), Major (64.5%), and Large regional hospitals (26.1%) reported having a Major Trauma Service. In New Zealand Major Trauma Services were located at 71.4% of Metropolitan and 41.7% of Regional hospitals.

In Australia, urgent PCI for STEMI was available in a large proportion of Major (93.5%) and Private (84.6%) hospitals, compared with the other Australian hospital peer groupings (Table 14). This was available in 85.7% of Metropolitan and 33.3% of Regional hospitals in New Zealand.

Large regional EDs in Australia reported the lowest mean number of major trauma cases with an injury severity score (ISS) of more than 12 (77) with Major EDs in Australia reporting the highest mean number of trauma cases with an ISS >12 (483) (Table 14).

Table 14 Percentage of hospitals with an on-site Cardiac Catheter Laboratory providing urgent PCI for STEMI, the percentage with a Major Trauma Service and the number of major trauma cases treated with an injury severity score greater than 12*, by hospital peer group.

| Hospital peer group | On-site Cardiac Catheter Lab for urgent PCI for STEMI % | Designated as Major Trauma Service % | Major trauma cases treated with an ISS>12 mean (range) |
|------------------------|---|--------------------------------------|--|
| Australia | | | |
| Major | 93.5% | 64.5% | 483.0 (150 - 1272) |
| Large metropolitan | 45.2% | 0.0% | |
| Medium metropolitan | 0.0% | 0.0% | |
| Large regional | 47.8% | 26.1% | 77.0 (52 - 92) |
| Small/ medium regional | 0.0% | 0.0% | |
| Private | 84.6% | 0.0% | |
| Specialist | 0.0% | 100.0% | 79.7 (32 - 118) |
| New Zealand | | | |
| Metropolitan | 85.7% | 71.4% | 269.8 (60 - 432) |
| Regional | 33.3% | 41.7% | 131.6 (46 - 330) |

Notes: * ISS = injury severity score, for major trauma cases presenting to EDs with a major trauma service during the period 1 July 2018 to 30 June 2019. Where no mean or range is provided, $n \leq 1$ or there is no variation from the mean. Only applicable EDs have major trauma cases treated with an ISS > 12.

The average number of specialty services available on-site across hospitals and the average number of these specialty services accredited for training are presented in Table 15 by region and Table 16 by hospital peer group. Consistent with the findings from the 2018 Census (as these questions are included every two years), Australian Major and Specialist hospitals had the highest average number of speciality services available on-site (2020: 37 each; 2018: 36 and 38 respectively) and accredited for training on-site (2020: 33 and 35 respectively; 2018: 32 and 36 respectively). While Australian Private hospitals had on average 29 speciality services on-site, however only six of these were accredited for training, again consistent with what was reported in the 2018 Census with an average of 28 speciality services on-site and only 4 accredited for training.

Table 15 Average number of speciality services available on-site and the average number of these accredited for training (range in brackets), by region.

| Region | On-site | | | On-site and accredited for training | | |
|-------------|---------|------|-----------|-------------------------------------|------|-----------|
| | n | mean | (range) | n | mean | (range) |
| Australia | 130 | 26 | (1 - 41) | 123 | 19 | (1 - 40) |
| NSW | 42 | 26 | (1 - 40) | 40 | 20 | (1 - 40) |
| VIC | 31 | 26 | (4 - 38) | 28 | 19 | (1 - 38) |
| QLD | 29 | 24 | (7 - 41) | 28 | 17 | (1 - 40) |
| WA | 12 | 26 | (14 - 41) | 12 | 15 | (1 - 34) |
| SA | 8 | 27 | (11 - 39) | 7 | 23 | (1 - 37) |
| TAS | 3 | 28 | (16 - 39) | 3 | 21 | (9 - 35) |
| ACT | 2 | 32 | (23 - 40) | 2 | 24 | (11 - 36) |
| NT | 3 | 22 | (4 - 37) | 3 | 17 | (2 - 33) |
| New Zealand | 19 | 28 | (9 - 42) | 19 | 20 | (2 - 41) |
| Total | 149 | 26 | (1 - 42) | 142 | 19 | (1 - 41) |

Table 16 Average number of speciality services available on-site and the average number of these accredited for training (range in brackets), by hospital peer group.

| Hospital peer group | On-site | | | On-site and accredited for training | | |
|-----------------------|---------|------|-----------|-------------------------------------|------|-----------|
| | n | mean | (range) | n | mean | (range) |
| Australia | | | | | | |
| Major | 31 | 37 | (25 - 41) | 31 | 33 | (7 - 40) |
| Large metropolitan | 31 | 24 | (7 - 33) | 31 | 17 | (5 - 27) |
| Medium metropolitan | 16 | 12 | (2 - 24) | 16 | 7 | (1 - 16) |
| Large regional | 23 | 25 | (11 - 39) | 23 | 16 | (6 - 34) |
| Small/medium regional | 10 | 11 | (1 - 20) | 8 | 4 | (1 - 13) |
| Private | 13 | 29 | (11 - 35) | 8 | 6 | (1 - 14) |
| Specialist | 6 | 37 | (34 - 40) | 6 | 35 | (31 - 40) |
| New Zealand | | | | | | |
| Metropolitan | 7 | 31 | (9 - 42) | 7 | 26 | (6 - 41) |
| Regional | 12 | 26 | (13 - 40) | 12 | 16 | (2 - 39) |

5. Discussion of Findings

Results from the comparative analysis of the number of beds/chairs in specific treatment spaces, showed distinct differences between accredited EDs in Australia and those in New Zealand. Interestingly the average number of beds/ chairs available across all ED treatment spaces decreased between 2016 and 2020 for New Zealand EDs, while an increase was seen across most treatment spaces during the same period for Australian EDs. Of the states and territories, the Australian Capital Territory saw the greatest increase in the average number of attendances per available beds/ chairs between 2016 and 2020, however remained low comparative to the other jurisdictions. Meanwhile, Queensland EDs saw a 10% increase in the ratio of attendances per available beds/ chairs between 2016 and 2020 and had the greatest number of attendances per ED beds/ chairs in comparison to the other jurisdictions.

EDs at hospitals classified as Large metropolitan (12.3%) and Small/medium regional (8.5%) in Australia and EDs at hospitals classified as Regional in New Zealand (8.2%) also reported an increase in the number of patient attendances per bed/chair from 2016 to 2020. While EDs classified in the Small/medium regional hospital peer group in Australia had the third highest ratio of patient attendances per bed/chair, they now have the highest number of patient attendances per bed/chair further highlighting how important it is to monitor and prepare for changes in catchment populations and subsequent changes in patient demand and patient complexity.

Only 44% of accredited EDs in Australia and 37% of accredited EDs in New Zealand reported being part of a formal rural network, while 67% and 26% respectively, reported being part of a training network. The reasons EDs reported for not being a part of a rural or training network, along with the challenges for those with established networks, will be useful in informing College discussion on EM workforce issues, including maldistribution and improving equity in rural areas.

Interestingly, over 50% of New Zealand EDs were designated as a Major Trauma Service, while only 25% of Australian EDs were. There was also a significant difference in the percentage of EDs designated as a Major Trauma Service across jurisdictions, with only 13% of Victorian EDs designated as a Major Trauma Service, compared to two thirds of EDs in Tasmanian and the Northern Territory. Separate to that, no Northern Territory ED had an on-site Cardiac Catheter Laboratory available for urgent Percutaneous Coronary Intervention for ST-Elevation Myocardial Infarction and EDs in the Northern Territory also had the lowest average available on-site speciality services. Regional EDs in both Australia and New Zealand also had lower average onsite speciality services available compared to their metropolitan counterparts.

In summary, the 2020 Census has illustrated a maldistribution of skills, services and resources and highlighted concerning hospital trends among some sites. Such trends include regionally located EDs in Australian and New Zealand reporting fewer ED beds/ chairs per attendances, as well as fewer onsite services available compared to other hospital peer groups. These differences reflect differing access to and equity in care available to patients and will be monitored in future iterations of the Annual Site Census. Establishment of rural networks or further support to existing rural networks may be one way regionally located EDs can reduce these inequities through the sharing of resources, improved collaboration and patient management and through telehealth support.

6. References

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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

2020 Annual Site Census

Sites with GENERAL Accreditation

1. Introduction

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

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

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

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

Hospital:

ED Type:

2. Administration

2.1 ED and FACEM Training Program Management

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

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

2.1.1 On-Floor Supervision and Clinical Support Time

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

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

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

2.2 Research related contacts

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

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

| | |
|--------------------------|--|
| Name: | |
| Position: | |
| Research qualifications: | |
| Email: | |

2.2.1 ED or hospital data manager

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

| | |
|-----------|--|
| Name: | |
| Position: | |
| Email: | |

3. EM Specialist and FACEM Trainee Staffing

3.1 FACEMs/ Paediatric EM Specialists

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

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

3.1.1 Vacancies

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

If zero please include:

| | Funded but unfilled FTE | Funded but unfilled for more than 6 months FTE | Are you actively trying to fill this vacancy? |
|-----------------|-------------------------|--|--|
| FACEMs | | | Please select <input type="button" value="v"/> |
| PEM Specialists | | | Please select <input type="button" value="v"/> |

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

3.1.2 Visiting Medical Officers

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

| | Yes | No |
|--|--------------------------|--------------------------|
| Are VMOs (at FACEM level) currently employed within your ED? | <input type="checkbox"/> | <input type="checkbox"/> |

If yes:

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

Total VMO FTE:

Total VMO Head Count:

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

Please select which contract options VMOs are employed on:

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

3.1.3 Locums

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

| | Yes | No |
|--|--------------------------|--------------------------|
| Are Locum FACEM level staff currently employed within your ED? | <input type="checkbox"/> | <input type="checkbox"/> |

If yes:

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

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

3.2 FACEM trainees

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

| | Adult/ Mixed ED Total FTE | Adult/ Mixed ED Total Head Count |
|----------------------|------------------------------|-------------------------------------|
| Advanced trainees | <input type="text"/> | <input type="text"/> |
| Provisional trainees | <input type="text"/> | <input type="text"/> |

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

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

No

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

3.2.1 Vacancies

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

If zero please include:

| | Funded but unfilled FTE | Funded but unfilled for more than 6 months FTE | Are you actively trying to fill this vacancy (Y/N) |
|----------------|-------------------------|--|--|
| FACEM trainees | | | Please select <input type="button" value="v"/> |

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

- Yes
 No

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

4. ED Clinical Cover

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

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

† Includes FRACP PEM Specialists and FACEM PEM Specialists

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

5. Other ED Staffing

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

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

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

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

5.2 Other medical staff

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

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

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

5.3 ED Administrative staff

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

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

5.4 Nursing staff

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

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

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

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

6. ED Casemix

6.1 Attendances, admissions and transfers

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

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

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

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

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

6.2 Cultural capabilities

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

| | Poor | Fair | Good | Very Good | Excellent |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| The quality of the data | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The reliability of the data | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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

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

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

6.3 ED Performance

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

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

6.4 Ambulance bypass and handover

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

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

7. ED Resources

7.1 Beds and chairs

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

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

7.2 Formal and informal networks

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

7.2.1 EM rural networks

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

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

- Yes
- No

If no:

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

If yes:

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

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

Please describe what works well with your EM rural network:

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

7.2.2 EM training networks

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

Is your ED part of an EM training network?

- Yes
- No

If no:

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

If yes:

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

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

Please describe what works well with your EM training network:

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

7.2.3 Other EM networks

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

- Yes
- No

If yes:

Please describe your other network(s):

8. Restrictive practices

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

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

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

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

- Yes
- No

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

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

If yes:

How long is this data kept?

months years

- Unsure

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

- Yes
- No
- Unsure

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

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

9. Other Hospital Services

Please answer the following questions regarding your related hospital services.

9.1 Cardiac Catheter Lab

| | Yes | No |
|---|--------------------------|--------------------------|
| Do you have on-site Cardiac Catheter Lab for urgent PCI in STEMI? | <input type="checkbox"/> | <input type="checkbox"/> |

9.2 Major Trauma Service

| | Yes | No |
|---|--------------------------|--------------------------|
| Are you designated as a Major Trauma Service? | <input type="checkbox"/> | <input type="checkbox"/> |

If yes:

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

9.3 Speciality Services

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

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

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

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

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

Research-Evaluation@acem.org.au