AUSTRALASIAN COLLEGE
FOR EMERGENCY MEDICINE

Hospital Data and Accreditation 2012 Survey- Part 1:

Report of Findings

2013

ACKNOWLEDGMENTS

ABBREVIATIONS AND ACRONYMS

AIHW	Australian Institute of Health and Welfare
DEM	Director of Emergency Medicine
ED	Emergency Department
GP	General Practitioner
FTE	Full Time Equivalent
HIQ	Hospital Information Questionnaire
QMS	Quality Management System

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1. Executive Summary

Background

This report describes the findings from the Hospital Data and Accreditation survey- Part 1, which was conducted by the Australasian College for Emergency Medicine (ACEM) in 2012. Information was sought from Directors of Emergency Medicine (DEMs) on hospital and ED performance, resources, attendance and admissions, low-acuity presentations, quality management, access targets and staffing.

Data from 95 of the 115 ACEM accredited hospitals was obtained. The data collected will assist in informing ACEM policy and advocacy activities, particularly with respect to workforce and training.

Summary of Findings

Performance
- Annual in-patient bed occupancy rates for both Australia and New Zealand were 90%.
- Australian and New Zealand hospitals saw a 3.1% and 2.4% rise respectively in ED patient attendance between the financial years 2010-2011 to 2011-2012.
- Overall 99% of Triage category 1, 80% of Triage category 2, 64% of Triage category 3, 66% of Triage category 4 and 85% of Triage category 5 patients were seen within the maximum recommended waiting time.
- Within Australia 59% of all patients were admitted, discharged or transferred within the 4-hour access target, with 89% of all patients in New Zealand admitted, discharged or transferred within the 6-hour access target.
- Overall 37% of patients experienced access block and were admitted or transferred after eight hours.

Low-acuity
- The majority of DEMs indicated that low-acuity 'GP-type' presentations did not contribute to workload (62%) or ED overcrowding (84%), and were not a resource burden (65%).

Quality Management Systems (QMS)
- Ninety per cent of the EDs surveyed used ACHS clinical indicators and 53% also used other clinical indicators for quality management/ auditing purposes
- With respect to ACEMs recently updated Quality Framework for EDs (Policy No. P28), 43% of the EDs surveyed had implemented this Framework.
- Dissemination of outcomes of QMS review activities occurs in 92% of the EDs surveyed, but only to the wider hospital in 47% of EDs surveyed.

Access Targets Outcomes and Perceptions
- The majority of DEMs responded that time-based access targets had not reduced access block (53%) or ED overcrowding (59%).
- The majority of DEMs reported that no additional staff (74%) or acute in-patient beds had been provided (90%) and there was no improved access to radiology (74%) and pathology services (71%) as a result of the establishment of time-based access targets.
- Seventy-three per cent and 57% of the DEMs reported that ED and hospital redesign respectively had been implemented as a result of the establishment of time-based access targets.
- The majority of DEMs indicated that time-based access targets had increased the efficiency of ED operations (57%), improved bed management (47%) and were a good measure of hospital performance (61%) but not ED performance (61%). Furthermore, training programs and the quality of clinical care provided to patients had not been affected by the targets.

Staffing

- In terms of medical staffing profiles, EDs in Victoria, New Zealand and WA had the greatest number of FACEMs and registrars who were ACEM trainees. Whereas EDs in NSW, NT and SA had the greatest number of junior doctors, CMOs residents or non-accredited registrars.

2.   Methodology
2.1.   Survey Distribution

The online surveys went live on 17th July 2012, with a reminder email sent to Directors of Emergency Medicine (DEMs) on the 24th August, 2012. See Appendix 1 for Hospital Data and Accreditation Survey- Part 1. A further follow-up email was sent to non-responders on the 5th September, informing them of an extension to the closing date to the 21st September and encouraging completion of the survey either online or in hardcopy format. A PDF version of the survey was emailed to each of the non-responders. During this time it was identified that there were some technical issues with the online survey instrument and that some of the numerical data was difficult for respondents to obtain. Due to low response rates the online survey was left open until the 5th November 2012.

Seventy-six DEMs responded initially to the survey, either through the online survey or with some received by email or fax. This was an initial overall response rate of 66% of the 115 accredited hospitals. The response rate to individual survey questions varied, with a decreased response rate occurring towards the end of the survey and a reduced response rate for questions requiring difficult to obtain numerical data.

2.2.   Additional Data Sources

Due to the low response rate, a number of data sources and methods were used to gain data for the survey for both missing data from responders as well as for hospitals without a response. These included data from the National Health Performance Authority and their www.myhospitals.gov.au website which was used to obtain data for 31 Australian public hospitals. The data collected included the total number of patient presentations for 2011-2012 and 2010-2011; the number of presentations per triage category; the percentage of patients seen within the maximum target waiting time for each triage category; and the number of patients who were admitted, discharged or transferred within the 4 hour target. The Victorian Government's www.performance.health.vic.gov.au website was used to obtain data for a further seven Victorian public hospitals on ambulance bypass (hours) and ambulance offloads.

Data from the College's Hospital Information Questionnaire's was also obtained to fill in missing data for 77 of the hospitals, and included predominantly data on ED staff numbers and weekday and weekend rosters. Hospital Information Questionnaire data from no earlier than 2010 was used to boost response rates to these questions but also maintain some level of data integrity and accuracy. It was assumed that such staffing data should not have changed significantly in the last two years however this should be taken into account when viewing the staffing data analyses.

Response rates to the 'tick the box' questions on Low-acuity (GP-type) presentations in the Emergency Department, Quality Management and Access Targets were 51%, 48% and 47% respectively. Boosting response rates to these questions was perceived to be important, particularly response rates to the questions on Access Targets. The 44 non-responders' to these question(s) were contacted by email in late December 2012 and asked to complete a shortened survey online, consisting of only the questions on Low-acuity, Quality Management and/or Access Targets they had not previously answered. The surveys were closed on 14th January, 2013. This boosted response rates to 65% for the questions on Low-acuity, 63% for the questions on Quality Management and 62% for the questions on Access Targets.

After including the above data into the final table of results, 95 accredited hospitals were represented in the sample at an optimised response rate of 83%. These consisted of 87 Australian and 8 New Zealand hospitals. New South Wales, Victoria and Queensland were predominantly

represented, followed by Western Australia, South Australia, Tasmania and the Northern Territory. No ACT hospitals were represented in the sample.

2.3. Limitations

Before presenting the findings, it must be noted that a number of limitations existed with the survey tool used in this study which influenced the data obtained. These included a lack of consensus for some data elements between States and Territories, such as ambulance offload target times and definition of paediatric patients. Other data elements were not clearly defined which may have influenced responses, including 'unplanned representations', 'wait times' and 'low-acuity patients'. The definition for 'low-acuity patients' used in the survey differed to the Australian Institute of Health and Welfare 'Non-admitted patient emergency department care' data set, which is routinely used for ED data collection. Such issues with data definitions impacted response rates to those particular questions and may have impacted on the validity and reliability of the data obtained. Some of the data elements, including some of those mentioned above were difficult to source as EDs varied in the data they collect and have easy access to, which also influenced response rates. Thus for all analysis, response rates are provided for each data element and must be taken into consideration when interpreting the data.

3. Findings
3.1. Demographic Data
3.1.1 Demographic Data for all ACEM accredited hospitals

This section contains demographic data on all of the ACEM accredited hospitals as of the time the survey was delivered, including region located (Australia or New Zealand and state or territory), hospital role delineation (major-metropolitan, urban-metropolitan or regional/rural) and public or private status of the hospital.

There were a total of 115 emergency departments accredited by ACEM at the time the survey was delivered with 104 of these located in Australia and 11 in New Zealand (Table 1, Figure 1). NSW had the most accredited emergency departments at 34, followed by Victoria with 25 and Queensland with 21.

Table 1. Distribution of all ACEM accredited hospitals at the time of the survey

Region	n	% of the total number of ACEM accredited hospitals
ACT	2	2%
NSW	34	30%
NT	2	2%
QLD	21	18%
SA	6	5%
TAS	3	3%
VIC	25	22%
WA	11	10%
AUS	**104**	**90%**
NZ	**11**	**10%**
Total	**115**	**100%**

n= number of hospitals
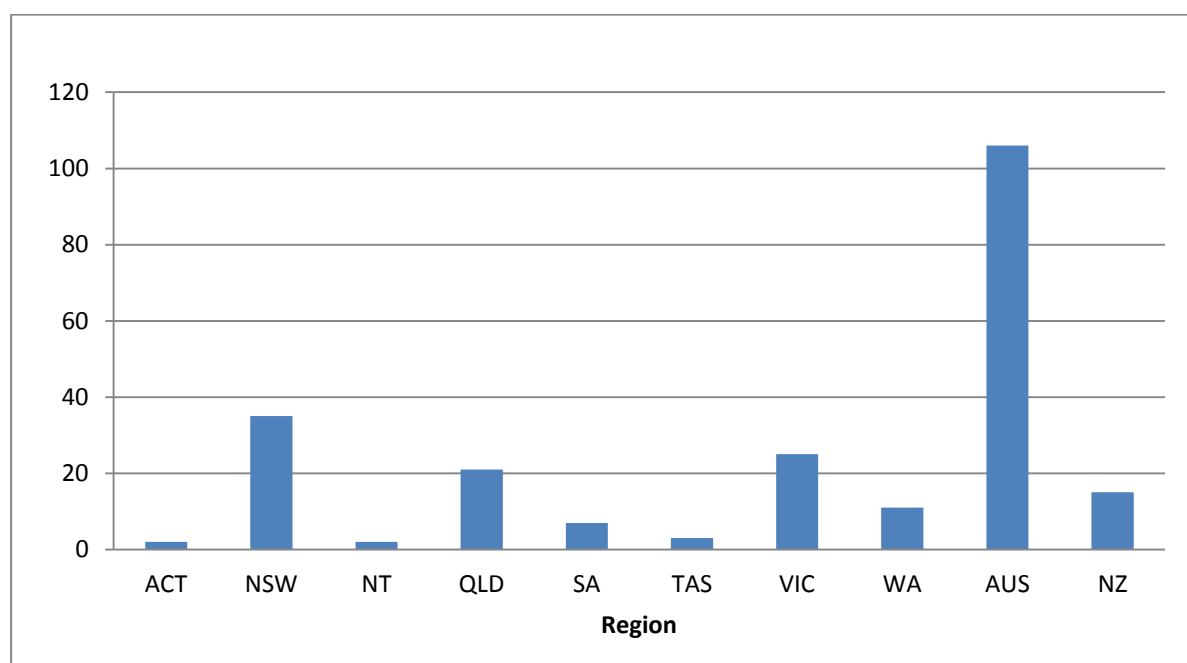
Figure 1. Distribution of all ACEM accredited hospitals (by number) per region

Of the 115 ACEM accredited hospitals, 36% were classified as major-metropolitan, 42% were classified as urban-metropolitan and 23% were classified as regional/rural in their role delineation (Table 2).

Table 2 provides the percentage of major-metropolitan, urban-metropolitan and regional/rural categorised hospitals by state, territory and country. Of Australia's accredited hospitals, 33% were classified as major-metropolitan, 44% were classified as urban-metropolitan and 23% were classified as Regional/Rural. For the New Zealand accredited hospitals, 40% were classified as Major-Metropolitan, 20% were classified as urban-metropolitan and 40% were classified as regional/rural. Refer to Table 2 and Figure 2 for further breakdown of hospitals by state, territory and role delineation.

Table 2. Distribution of all ACEM accredited hospitals (%) at the time of the survey by role delineation (metropolitan-major; metropolitan-urban; regional/rural) and by region (n= 115)

Region	Metro-Major	Metro-Urban	Rural/Regional
ACT	50%	50%	0%
NSW	34%	40%	26%
NT	50%	0%	50%
QLD	29%	48%	24%
SA	43%	57%	0%
TAS	33%	0%	67%
VIC	28%	52%	20%
WA	36%	45%	18%
AUS	33%	44%	23%
NZ	40%	20%	40%
Total	**36%**	**42%**	**2%**
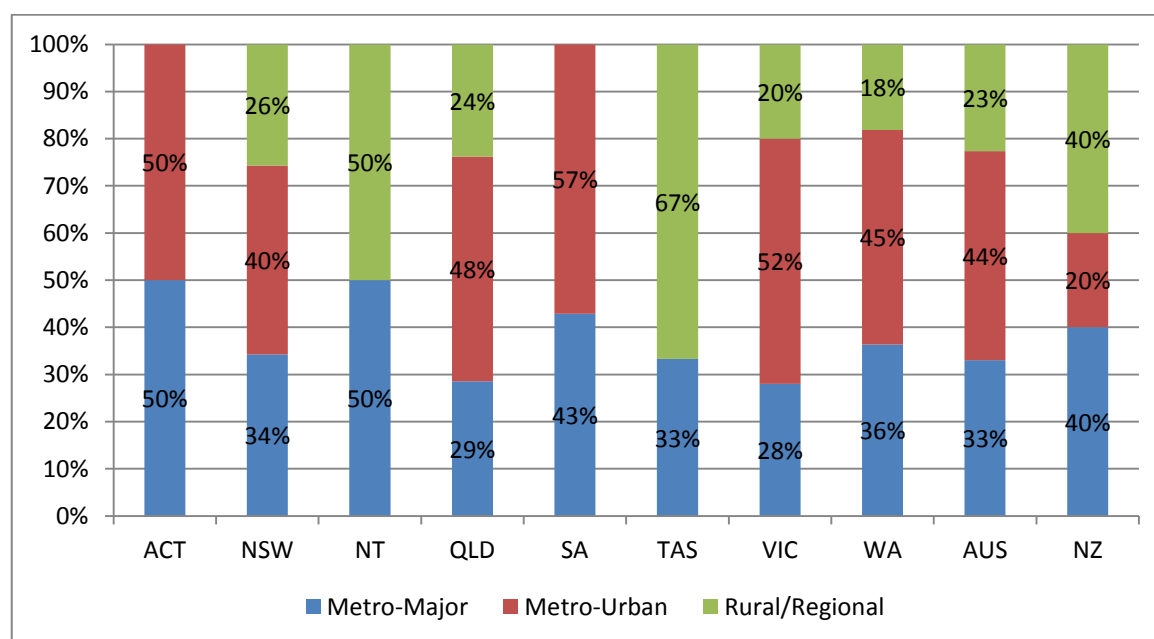
Figure 2. Distribution of all ACEM accredited hospitals (%) by region and role delineation

Of the 115 ACEM accredited emergency departments, 96% were classified as public and 4% were classified as private (Table 3). Five percent of Australia's accredited hospitals were private, with no New Zealand hospitals classified as private (Table 3).

Table 3. Distribution of hospitals (%) by type, public or private and by country

Region	Hospital Type	
	Public	Private
Australia	95%	5%
New Zealand	100%	0%
Total	**96%**	**4%**
n	**110**	**5**

n= number of hospitals

3.1.2 Demographic data for the ACEM accredited hospitals who responded to the survey

This section contain demographic information for the ACEM accredited emergency departments who responded to the survey and includes region located (Australia or New Zealand and state or territory), hospital role delineation (major-metropolitan, urban-metropolitan or regional/rural) and public or private status of the hospital.

Table 4 and Figure 3 show the distribution and response rates by country, state and territory of the 95 ACEM accredited emergency departments that participated in the survey. Eighty-seven of these emergency departments were located in Australia and 8 were located in New Zealand. Twenty-six New South Wales, 22 Victorian and 20 Queensland emergency departments participated in the survey. No ACT emergency departments responded to the survey.

From the total number of accredited hospitals by region who responded, 84% were located in Australia and 73% were located in New Zealand, with 100% of the Northern Territorian, South Australian and Tasmanian emergency departments responding (Table 4).

Table 4. Distribution of hospitals (%) who responded to the survey by region

Region	n	% of total number of hospitals who responded	% of accredited hospitals by region who responded
ACT	0	0%	0%
NSW	26	27%	76%
NT	2	2%	100%
QLD	20	21%	95%
SA	6	6%	100%
TAS	3	3%	100%
VIC	22	23%	88%
WA	8	8%	73%
Australia	**87**	**92%**	**84%**
NZ	**8**	**8%**	**73%**
Total no. of Hospitals who responded	**95**	**100%**	**83%**

n= number of hospitals who responded
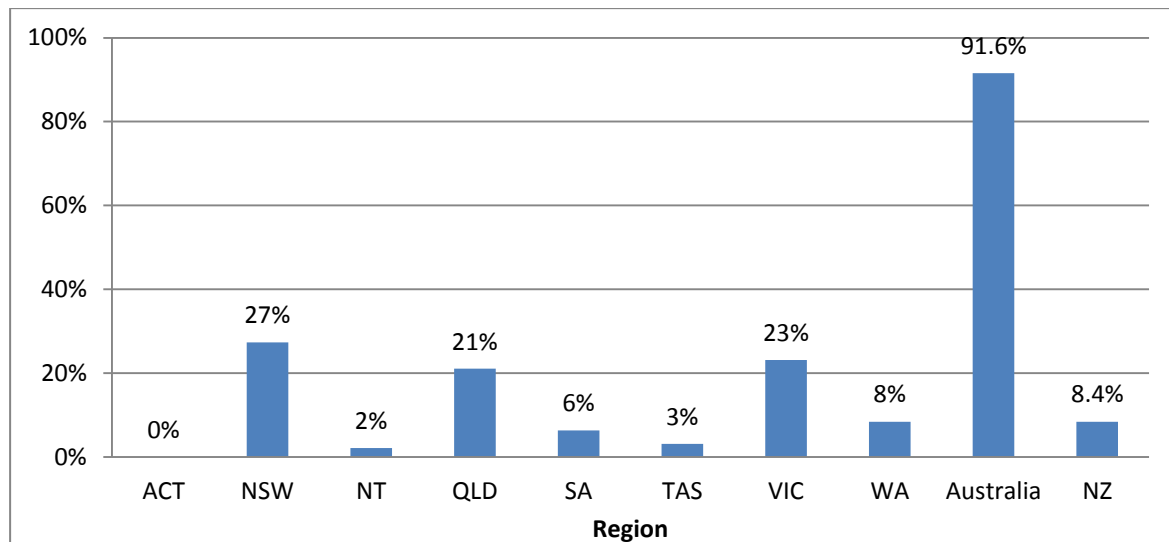
Figure 3. Distribution of hospitals (%) included in the survey, by region

From the 95 ACEM accredited hospitals that responded to the survey, 36% were classified as major-metropolitan, 41% were classified as urban-metropolitan and 23% were classified as regional/rural in their role delineation (Table 5). Of the Australian hospitals that were represented in the sample, 33% were classified as major-metropolitan, 44% were classified as urban-metropolitan and 23% were classified as regional/rural. With respect to New Zealand hospitals, 63% were classified as major-metropolitan, 12% as urban-metropolitan and 25% were classified as regional/rural. Refer to Table 5 and Figure 4 for further breakdown of hospitals by state and territory and their role delineation.

Table 5. Distribution of hospitals (%) included in the survey by role delineation, metropolitan-major; metropolitan-urban; regional/rural (n= 95)

Region	Metro-Major	Metro-Urban	Regional/Rural
NSW	27%	46%	27%
NT	50%	0%	50%
QLD	25%	50%	25%
SA	50%	50%	0%
TAS	33%	0%	67%
VIC	36%	45%	18%
WA	50%	38%	12%
Australia	**33%**	**44%**	**23%**
NZ	**63%**	**12%**	**25%**
Total	**36%**	**41%**	**23%**
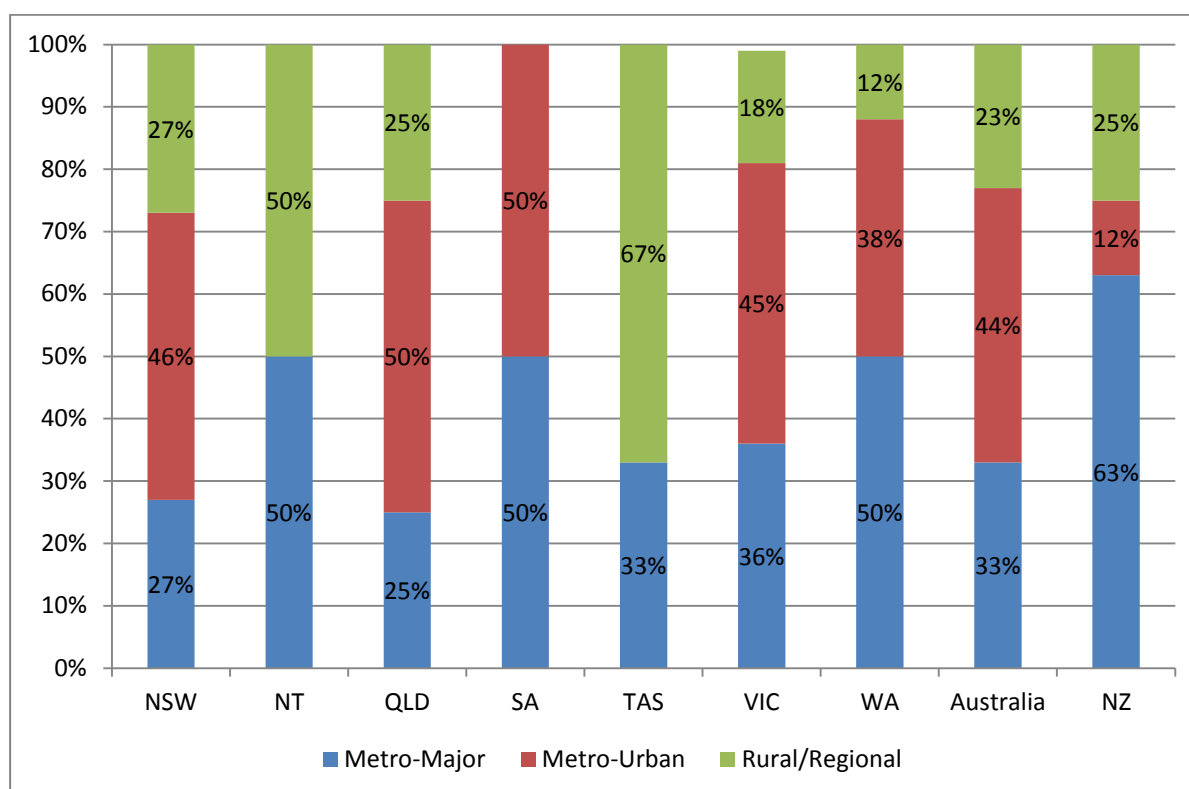
Figure 4. Distribution (%) of hospitals included in the survey by region and role delineation

Of the 95 emergency departments that responded to the survey, 95% were public and 5% were private hospitals (Table 6).

Table 6. Distribution (%) of hospitals included in the survey by type, public or private and country

Region	Hospital Type	
	Public	Private
Australia	91%	9%
New Zealand	100%	0%
Total	**95%**	**5%**
n	**90**	**5**

3.2. Hospital Performance

This section contains data on the average annual bed occupancy rate for in-patient and short stay unit beds for those that responded. This data is broken down further by country, state and territory and hospital role delineation.

Data on the average annual occupancy rates (%) for in-patient beds was obtained for 71 hospitals, while data for 32 hospitals was obtained for the average annual bed occupancy rates for short stay units (Table 7). Australian hospitals reported an average annual bed occupancy rate for in-patient beds of 90%, compared to an average of 90% for New Zealand hospitals. The average annual bed occupancy rate for short stay units was 75% for Australian hospitals and 72% for New Zealand hospitals.

Table 7. Annual bed occupancy rates (%) for in-patient beds and short stay unit beds for Australian and New Zealand ACEM accredited hospitals

Region	% Annual bed occupancy rate for in-patient beds	% Annual bed occupancy rate for short stay unit
Australia	90%	75%
NZ	90%	72%
Total	**90%**	**74%**
n	**71**	**32**

n= number of hospitals who provided a response

Annual bed occupancy rates for in-patient beds ranged in average from between 86% for the Queensland and Western Australian hospitals who responded to 100% for the Northern Territory hospital who provided a response (Table 8). Refer to Table 8 and Figure 5 for individual state and territory breakdown of annual occupancy rates for in-patient beds.

Table 8. Average annual bed occupancy rate (%) for in-patient beds for ACEM accredited hospitals by region (for 71 hospitals who responded)

Region	% Annual bed occupancy
ACT	ND
NSW	92%
NT	100%
QLD	86%
SA	93%
TAS	92%
VIC	91%
WA	86%
Australia	**90%**
NZ	**90%**
Total	**90%**
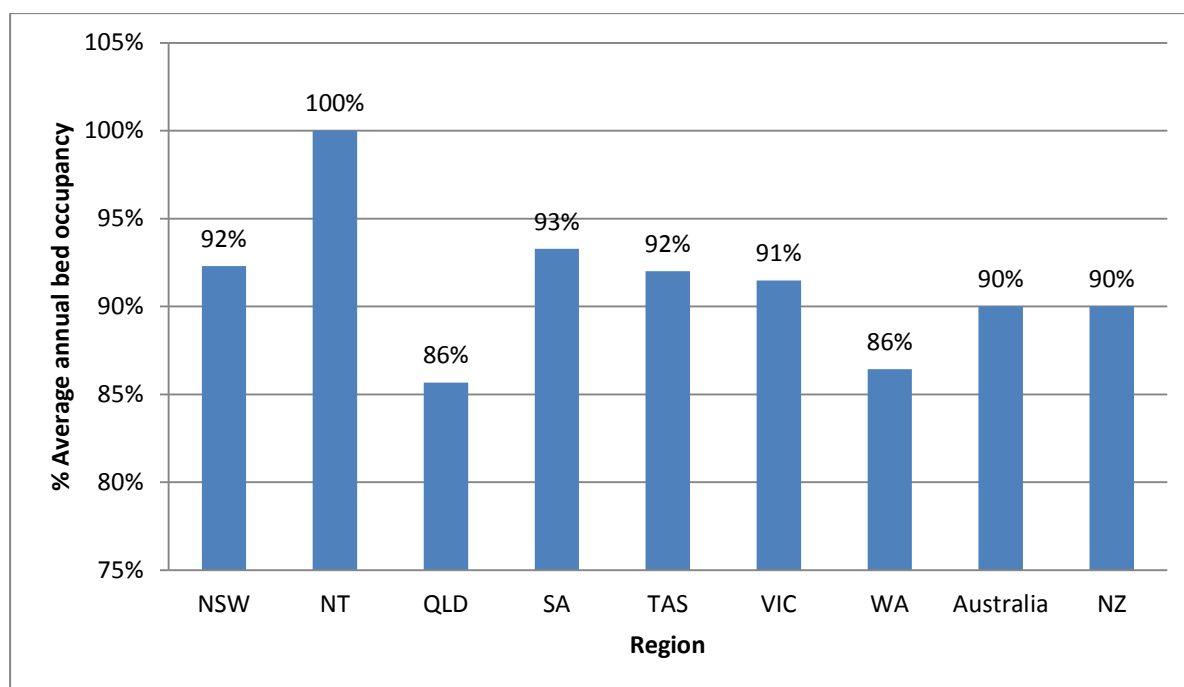
Figure 5. Average annual bed occupancy rate (%) for in-patient beds for ACEM accredited hospitals by region

Major-metropolitan hospitals had a higher average in-patient bed occupancy rate of 94%, compared to urban-metropolitan hospitals at 83% and regional/rural hospitals at 87% (Table 9). Refer to Table 9 for the further breakdown of annual bed occupancy rates by hospital role delineation and country or state and territory level.

Table 9. Average annual bed occupancy rate (%) for in-patient beds for ACEM accredited hospitals by region and hospital role delineation

Region	Metro-Major	Metro-Urban	Regional/Rural	Total
NSW	97%	90%	90%	92%
NT	100%	ND	ND	100%
QLD	94%	82%	76%	86%
SA	97%	90%	ND	93%
TAS	98%	ND	86%	92%
VIC	96%	88%	89%	91%
WA	95%	82%	75%	86%
Australia	**97%**	**86%**	**83%**	**92%**
NZ	**92%**	**80%**	**91%**	**90%**
Total	**94%**	**83%**	**87%**	**91%**

n= 71

3.3.   Emergency Department (and related Hospital) Resources

This section contains data on ED and related hospital resources including whether the hospital is designated as a major trauma service; whether the ED facilitates thrombolysis for acute stroke; whether there is an onsite cardiac catheter laboratory, if it offers urgent PCI for STEMI and whether this service is available 24/7. These services are assessed at a country, state or territory level and at a hospital role delineation level.

Sixty-six hospitals responded to the questions on ED and related hospital resources. Thirty percent of these were classified as a major trauma service and 74% had an ED that facilitated thrombolysis for acute stroke (Table 10). Fifty-six percent of the hospitals that responded had an onsite cardiac catheter laboratory, with 89% of those offering urgent PCI for STEMI and 85% of those offering urgent PCI for STEMI offering this service 24/7 (Table 10).

Table 10. Response rates (%) to ED and related Hospital service questions:

	Are you a Major Trauma Service?	Does your ED facilitate Thrombolysis for acute stroke?	Do you have an onsite Cardiac Catheter Laboratory?	If you have a Cardiac Catheter Lab:	
				Does it offer urgent PCI for STEMI?	Is your PCI for STEMI a 24/7 Service?
Yes	30%	74%	56%	89%	85%
No	67%	18%	42%	11%	15%
NA	3%	8%	2%	NA	NA
Total	100%	100%	100%	100%	100%

Table 11 contains the individual region (country, state and territory) breakdown of ED and related hospital services for the 66 hospitals that provided a response to this question. Fifty-nine Australian and 7 New Zealand hospitals responded to the questions on ED and related hospital services. New Zealand had a greater percentage of hospitals that were designated as a major trauma service at 47% compared to Australian hospitals at 29%. New Zealand also had a greater percentage of EDs that could facilitate thrombolysis for acute stroke at 86% compared to 73% of Australian EDs. There was however a greater percentage of Australian hospitals, 58% that had an onsite cardiac catheter laboratory, compared to 43% of New Zealand hospitals. Refer to Table 11 for state and territory breakdown.

Table 11. Response rates (%) to ED and related Hospital services questions, by region

Region	n	Are you a Major Trauma Service?	Does your ED facilitate Thrombolysis for acute stroke?	Do you have an onsite Cardiac Catheter Laboratory?	If you have a Cardiac Catheter Lab:	
					Does it offer urgent PCI for STEMI?	Is your PCI for STEMI a 24/7 Service?
NSW Yes		38%	69%	63%	100%	70%
No		63%	19%	38%	0%	30%
NA		0%	13%	0%	NA	NA
Total	16	100%	100%	100%	100%	100%
NT Yes		0%	0%	0%	0%	0%
No		100%	100%	100%	100%	100%
NA		0%	0%	0%	NA	NA
Total	1	100%	100%	100%	100%	100%
QLD Yes		33%	83%	50%	83%	80%
No		67%	8%	50%	17%	20%
NA		0%	8%	0%	NA	NA
Total	12	100%	100%	100%	100%	100%
SA Yes		60%	60%	80%	75%	100%
No		40%	20%	20%	25%	0%
NA		0%	20%	0%	NA	NA
Total	5	100%	100%	100%	100%	100%
TAS Yes		33%	67%	67%	100%	100%
No		33%	33%	33%	0%	0%
NA		33%	0%	0%	NA	NA
Total	3	100%	100%	100%	100%	100%
VIC Yes		13%	88%	56%	78%	100%
No		81%	13%	44%	22%	0%
NA		6%	0%	0%	NA	NA
Total	16	100%	100%	100%	100%	100%
WA Yes		17%	50%	50%	100%	100%
No		83%	50%	50%	0%	0%
NA		0%	0%	0%	NA	NA
Total	6	100%	100%	100%	100%	100%
Australia Yes		29%	73%	58%	88%	90%
No		68%	20%	42%	12%	10%
NA		3%	7%	0%	NA	NA
Total	59	100%	100%	100%	100%	100%
NZ Yes		43%	86%	43%	100%	33%
No		57%	0%	43%	0%	67%
NA		0%	14%	14%	NA	NA
Total	7	100%	100%	100%	100%	100%

n= the number of hospitals who responded

Table 12 contains the hospital role delineation breakdown of the responses to the ED and related hospital services questions. Seventy-seven percent of the 22 major-metropolitan hospitals that responded were classified as a major trauma service, 77% also had an ED which facilitates thrombolysis for acute stroke and 82% had an onsite cardiac catheter laboratory. No urban-metropolitan hospitals were designated as a major trauma service, with 72% of the 26 urban-metropolitan hospitals having an ED that facilitated thrombolysis for acute stroke and 35% providing an onsite cardiac catheter laboratory. Of the 18 regional/rural hospitals that responded, 17% were designated as a major trauma service, 72% also had an ED that facilitated thrombolysis for acute stroke and 56% had an onsite cardiac catheter laboratory. Refer to Table 12 for further details.

Table 12. Response rates (%) to ED and related Hospital services questions, by role delineation

Role delineation		n	Are you a Major Trauma Service?	Does your ED facilitate Thrombolysis for acute stroke?	Do you have an onsite Cardiac Catheter Laboratory?	If you have a Cardiac Catheter Lab:	
						Does it offer urgent PCI for STEMI?	Is your PCI for STEMI a 24/7 Service?
Metro-Major	Yes		77%	77%	82%	94%	88%
	No		23%	5%	14%	6%	12%
	NA		0%	18%	5%	NA	NA
	Total	22	100%	100%	100%	100%	100%
Metro-Urban	Yes		0%	72%	35%	100%	100%
	No		100%	23%	65%	0%	0%
	NA		0%	4%	0%	NA	NA
	Total	26	100%	100%	100%	100%	100%
Regional/Rural	Yes		17%	72%	56%	70%	43%
	No		72%	28%	44%	30%	57%
	NA		11%	0%	0%	NA	NA
	Total	18	100%	100%	100%	100%	100%

n= the number of hospitals who responded

3.4. Emergency Department Attendance and Admissions

This section contains data on ED attendances for the financial years 2011-2012 and 2010-2011 and ED attendances for each of the Australian Triage Scale categories. This section also contains data on the percentage of adult and paediatric patients, in-patient admissions, inter-hospital transfers and ICU admissions for the period 2011-2012. This data is further analysed at a country, state and territory level.

Table 13 and Figure 6 display the total patient attendances for the 2011-2012 and the 2010-2011 financial years, by country and state and territory. There was a 3.1% increase in total patient attendances for Australian EDs from the 2010-2011 to the 2011-2012 financial year and a 2.4% increase in attendances for New Zealand EDs. Tasmania was the only state or territory, which saw a decrease in total ED patient attendances. Refer to Table 13 for the breakdown of data.

Table 13. Total patient attendance for the periods 2011-2012 and 2010-2011, by region

Region	Total patient attendance 2011-2012	Total patient attendance 2010-2011	Difference in patient attendance between 2010-2011 and 2011-2012	% Difference in patient attendance between 2010-2011 and 2011-2012
NSW	1134318	1092159	42159	3.7%
NT	105043	102315	2728	2.6%
QLD	956572	920906	35666	3.7%
SA	326160	322843	3317	1.0%
TAS	115286	116744	-1458	-1.3%
VIC	1051381	1038776	12605	1.2%
WA	425652	394721	30931	7.3%
Australia	**4114412**	**3988464**	**125948**	**3.1%**
NZ	**208662**	**203589**	**5073**	**2.4%**

NB: Data from 85 Australian hospitals and 5 NZ hospitals
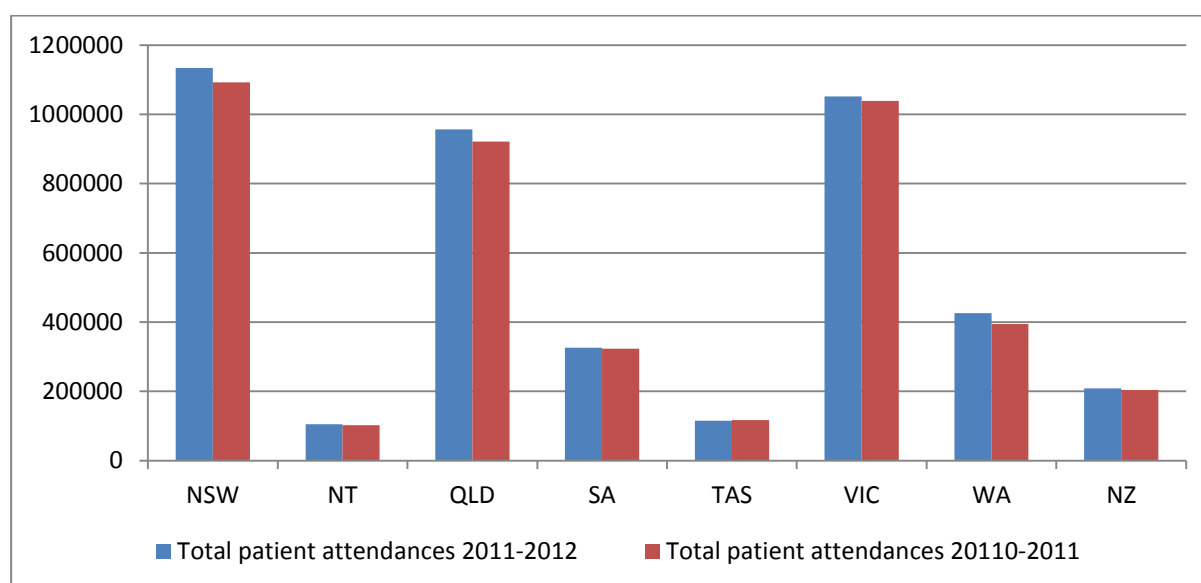
Figure 6. Total patient attendance for the periods 2011-2012 and 2010-2011, by region

Table 14 displays the breakdown of patient attendance by adult and paediatric attendance (% of total attendance), as well as by the percentage of in-patient admissions, inter-hospital transfers and ICU admissions for the Australian and New Zealand hospitals that responded to these questions. For Australian EDs, 77% of patient attendances were adults, with 23% being children (≤15 years of age) (Table 14 and Figure 7). The New Zealand EDs averaged 65% adult patients and 35% paediatric patients (Table 14 and Figure 7).

From the total number of attendances, Australian EDs averaged 26% for in-patient admissions, compared with 29% for New Zealand hospitals. Australian EDs averaged slightly higher inter-hospital transfers and ICU admissions at 2.2% and 0.6% respectively compared with the New Zealand EDs averaging 1.2% and 0.5% respectively. See Table 14 for further state and territory breakdown.

Table 14. Percentage of total Adult and Paediatric patients, in-patient admissions (%), inter-hospital transfers (%) and ICU admissions (%) for the period 2011-2012, for those hospitals that responded, separated by region

Region	% Adult patients	% Paediatric patients	% In-patient admissions	% Inter-hospital transfers	% ICU admissions
NSW	75%	25%	29%	1.4%	1.0%
NT	83%	17%	28%	0.0%	0.8%
QLD	79%	21%	23%	3.1%	0.4%
SA	71%	29%	26%	3.9%	0.7%
TAS	81%	19%	22%	0.6%	0.9%
VIC	75%	25%	26%	1.8%	0.6%
WA	84%	16%	27%	3.7%	0.2%
Australia	**77%** (n=56)	**23%** (n=56)	**26%** (n=58)	**2.2%** (n=53)	**0.6%** (n=48)
NZ	**65%** (n=4)	**35%** (n=4)	**29%** (n=4)	**1.2%** (n=3)	**0.5%** (n=4)

n= Number of hospitals who responded
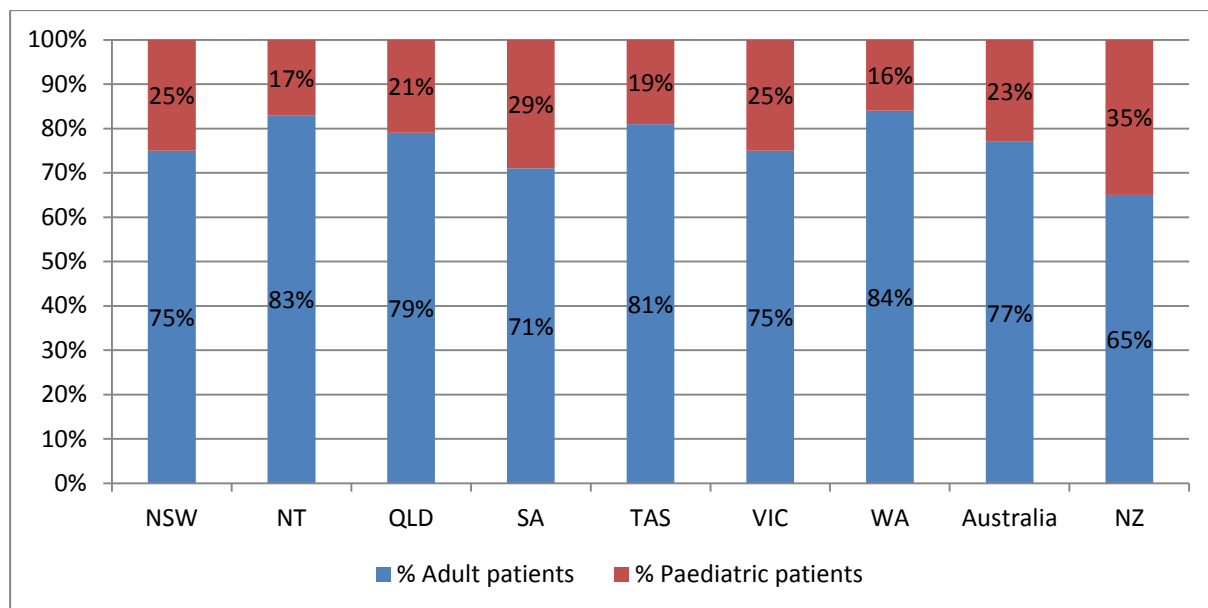
Figure 7. Percentage of total adult and paediatric patients for the period 2011-2012, for the hospitals that provided a response to this question, by region

Table 15 contains the total patient attendance data (overall number and percentage) by state, territory and country for each of the Australian Triage Scale categories. For both the Australian and New Zealand EDs, the majority of patient attendances were classified as ATS 3 or 4, with data obtained from 86 Australian EDs and 5 New Zealand EDs (Table 15 and Figure 8).

Table 15. Total and percentage of patient attendances for 2011-2012 by ATS category and region

| Region | Total patient attendances 2011-2012 | Total patient attendances by Triage Category | | | | |
		ATS 1	ATS 2	ATS 3	ATS 4	ATS 5
NSW	1134318	6905	117269	382476	475240	147615
	(n= 26)	0.6%	10.3%	34.0%	42.0%	13.0%
NT	105043	663	8145	31968	59145	5122
	(n= 2)	0.6%	7.8%	30.4%	56.3%	4.9%
QLD	956572	8637	115905	420904	356778	52805
	(n= 20)	0.9%	12.1%	44.0%	37.3%	5.5%
SA	326160	4860	44524	119357	135219	20996
	(n= 6)	1.5%	13.7%	36.6%	41.5%	6.4%
TAS	115286	654	9457	40800	51838	12363
	(n= 3)	0.6%	8.2%	35.4%	45.0%	10.7%
VIC*	1051381	5792	105777	355008	454791	92438
	(n= 21)	0.6%	10.1%	34.0%	43.3%	9.0%
WA	425652	4179	54936	141128	200798	23796
	(n= 8)	1.0%	12.9%	33.2%	47.2%	5.6%
Australia*	**4114412**	**31690**	**456013**	**1491641**	**1733809**	**355135**
	(n= 86)	**0.8%**	**11.1%**	**36.3%**	**42.1%**	**8.6%**
NZ	**208662**	**2150**	**25716**	**72352**	**83190**	**25189**
	(n= 5)	**1.0%**	**12.3%**	**34.7%**	**39.9%**	**12.1%**

n= Number of hospitals that provided a response.

* Individual Triage category breakdown data for 1 Victorian hospital not available
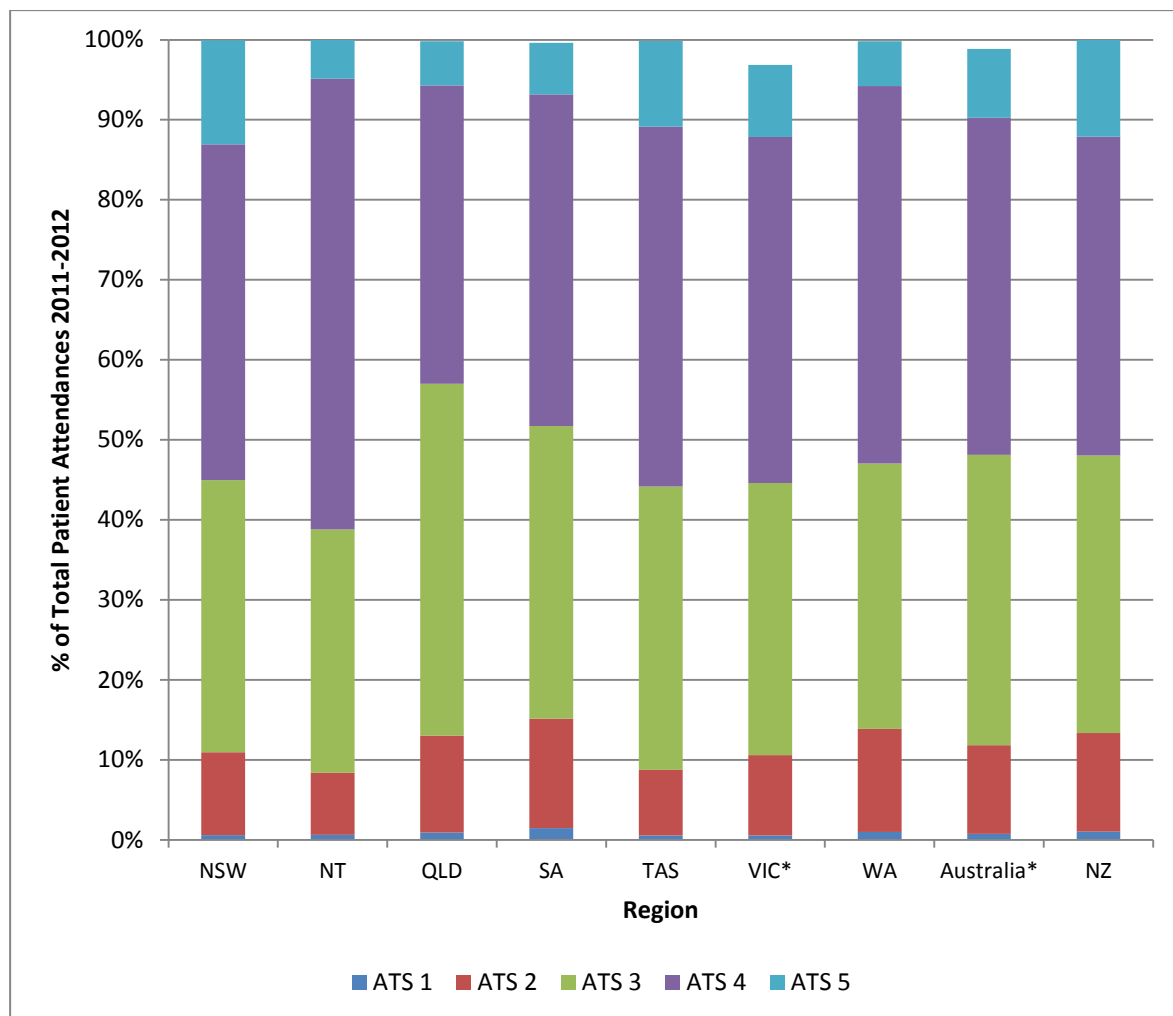
Figure 8. Percentage of total patient attendances for 2011-2012 by individual Triage category and region

Individual Triage category breakdown data for 1 Victorian hospital not available

3.4.1 Low-acuity (GP-type) presentations

The following section contains the perceptions of DEMs regarding the impact of GP-type/ low-acuity patients in their ED. For the purposes of this study, the definition of GP-type/ low-acuity patients were defined as 'ATS 4 and ATS 5 patients who were discharged from the ED within one hour of being seen by a doctor'. The overall perceptions on low-acuity patients and their impact on workload, overcrowding, resources and diversion initiatives are presented as well as DEM perceptions by region and hospital role delineation.

Table 16 provides the DEM overall response rates to various statements on low-acuity (GP-type) patients as a percentage of the total number who responded. The majority of DEMs disagreed or strongly disagreed with the statements that low-acuity/ GP-type patients 'contribute substantially to the workload', are a 'significant contributing factor to ED overcrowding' or that 'they are a significant resource burden'. Interestingly the majority of DEMs also disagreed or strongly disagreed with the statement that 'diversion initiatives for low-acuity patients (e.g. GP telephone helpline, after-hours GP clinics etc) have reduced patient workload' (Table 16).

Table 16. Response rates (%) from 75 DEMs of their perceptions on the effect of GP-type (low-acuity) patients in their ED

Low-acuity/ GP Type Patients:	Disagree-Strongly Disagree	Neutral	Agree-Strongly Agree	Total (%)
Contribute to workload	62%	15%	23%	**100%**
Contribute to ED overcrowding	84%	5%	11%	**100%**
Are a Resource burden	65%	23%	12%	**100%**
Diversion initiatives have decreased workload	77%	16%	7%	**100%**

Table 17 presents the DEM response rates (%) of their perceptions on low-acuity/ GP-type patients in their ED at a regional level. DEMs in South Australia were more inclined than other states or territories to think that low-acuity patients contributed substantially to the workload in their EDs but they were also more inclined to think that diversion initiatives for low-acuity patients have reduced patient workload in their EDs. See to Table 17 for further response rates by state and territory.

Table 17. DEM response rates (%) of their perceptions on the effect of GP-type (low-acuity) patients in their ED, by region

	Low-acuity/ GP Type Patients:	Disagree-Strongly Disagree	Neutral	Agree-Strongly Agree	Total (%)
NSW (n= 16)	Contribute to workload	56%	6%	38%	**100%**
	Contribute to ED overcrowding	75%	6%	19%	**100%**
	Are a Resource burden	44%	31%	25%	**100%**
	Diversion initiatives have decreased workload	56%	6%	38%	**100%**
NT (n= 1)	Contribute to workload	100%	0%	0%	**100%**
	Contribute to ED overcrowding	100%	0%	0%	**100%**
	Are a Resource burden	100%	0%	0%	**100%**
	Diversion initiatives have decreased workload	100%	0%	0%	**100%**
QLD (n= 16)	Contribute to workload	63%	25%	13%	**100%**
	Contribute to ED overcrowding	88%	6%	6%	**100%**
	Are a Resource burden	75%	25%	0%	**100%**
	Diversion initiatives have decreased workload	63%	25%	13%	**100%**
SA (n=5)	Contribute to workload	40%	20%	40%	**100%**
	Contribute to ED overcrowding	60%	20%	20%	**100%**
	Are a Resource burden	40%	40%	20%	**100%**
	Diversion initiatives have decreased workload	40%	20%	40%	**100%**
TAS (n= 3)	Contribute to workload	67%	33%	0%	**100%**
	Contribute to ED overcrowding	100%	0%	0%	**100%**
	Are a Resource burden	100%	0%	0%	**100%**
	Diversion initiatives have decreased workload	67%	33%	0%	**100%**
VIC (n= 20)	Contribute to workload	75%	10%	15%	**100%**
	Contribute to ED overcrowding	85%	10%	5%	**100%**
	Are a Resource burden	70%	25%	5%	**100%**
	Diversion initiatives have decreased workload	75%	10%	15%	**100%**
WA (n=7)	Contribute to workload	71%	0%	29%	**100%**
	Contribute to ED overcrowding	86%	0%	14%	**100%**
	Are a Resource burden	86%	0%	14%	**100%**
	Diversion initiatives have decreased workload	71%	0%	29%	**100%**
NZ (n= 7)	Contribute to workload	43%	29%	29%	**100%**
	Contribute to ED overcrowding	86%	0%	14%	**100%**
	Are a Resource burden	57%	14%	29%	**100%**
	Diversion initiatives have decreased workload	43%	29%	29%	**100%**

n= Number of hospitals who responded

Table 18 presents the DEM response rates (%) of their perceptions of low-acuity/ GP-type patients (%) by hospital role delineation level. DEMs working in major-metropolitan EDs were more inclined to disagree or strongly disagree with the statements that low-acuity patients 'contribute substantially to the workload' (74%), 'contribute significantly to ED overcrowding' (89%), 'are a significant resource burden' (74%), and that 'diversion initiatives for low-acuity patients have reduced patient workload (74%), compared to the other hospital role delineations. In contrast a smaller majority, 47% of regional/rural DEMs disagreed or strongly disagreed with the statement that low-acuity patients contribute substantially to the workload, with 26% agreeing or strongly agreeing with the statement and another 26% neutral to the statement. See Table 18 for individual percentages for each of the hospital role delineations.

Table 18. DEM response rates (%) on their perceptions on the effect of GP-type (low-acuity) patients in their ED, by role delineation

	Low-Acuity/ GP Type Patients:	Disagree- Strongly Disagree	Neutral	Agree- Strongly Agree	Total (%)
Metropolitan- Major (n= 27)	Contribute to workload	74%	11%	15%	**100%**
	Contribute to ED overcrowding	89%	4%	7%	**100%**
	Are a Resource burden	74%	19%	7%	**100%**
	Diversion initiatives have decreased workload	74%	11%	15%	**100%**
Metropolitan- Minor (n=29)	Contribute to workload	62%	10%	28%	**100%**
	Contribute to ED overcrowding	79%	10%	10%	**100%**
	Are a Resource burden	62%	21%	17%	**100%**
	Diversion initiatives have decreased workload	62%	10%	28%	**100%**
Regional/ Rural (n=19)	Contribute to workload	47%	26%	26%	**100%**
	Contribute to ED overcrowding	79%	5%	16%	**100%**
	Are a Resource burden	58%	32%	11%	**100%**
	Diversion initiatives have decreased workload	47%	26%	26%	**100%**

3.5. Emergency Department Performance

This section contains emergency department performance data, which includes for each of the Australian Triage Scale (ATS) categories, the percentage of patients seen within the target time, the average mean and median waiting times and the percentage of ED attendances who did not wait to be seen. Data was obtained from the majority of hospitals for the percentage of patients seen with the target time however response rates were lower for the other categories ranging between 37 and 54. This data is presented at a state, territory and country level as well as by hospital role delineation. Other ED performance indicators are also presented.

Table 19 contains the overall data on the percentage of patients seen within the target time, the mean and median waiting times and the percentage of patients, who did not wait, by ATS category. On average 99% of patients who were categorised as ATS 1 were seen on time, with 80% of ATS 2 and 85% of ATS 5 categorised patients being seen within the target time. For patients categorised as ATS 3 or 4, 64% and 66% respectively were seen within the target time (Figure 9). This is also reflected in the mean and median waiting time data (Figure 10), with the mean and median wait times being shorter for ATS 5 categorised patients compared with ATS 4 categorised patients.

Table 19. Percentage of patients seen within the maximum waiting time (min), patient mean waiting time (min), patient median waiting time (min) and percentage of attendances who did not wait (DNW), for each triage category for the period 1st July, 2011- 30th June, 2012

Triage category	% Patients seen within target time	Mean waiting time (min)	Median waiting time (min)	% DNW
ATS 1	99%	0.43	0.06	0%
	(n=90)	(n=54)	(n=54)	(n=47)
ATS 2	80%	9.87	5.94	0%
	(n=89)	(n=48)	(n=37)	(n=47)
ATS 3	64%	39.82	25.53	2%
	(n=91)	(n=48)	(n=37)	(n=47)
ATS 4	66%	61.86	41.20	6%
	(n=89)	(n=46)	(n=38)	(n=45)
ATS 5	85%	55.41	34.07	12%
	(n=89)	(n=47)	(n=37)	(n=46)

n= number of hospitals

Figure 9. Percentage of all patients seen within the recommended maximum waiting time per triage category, for the period 1st July, 2011- 30th June, 2012
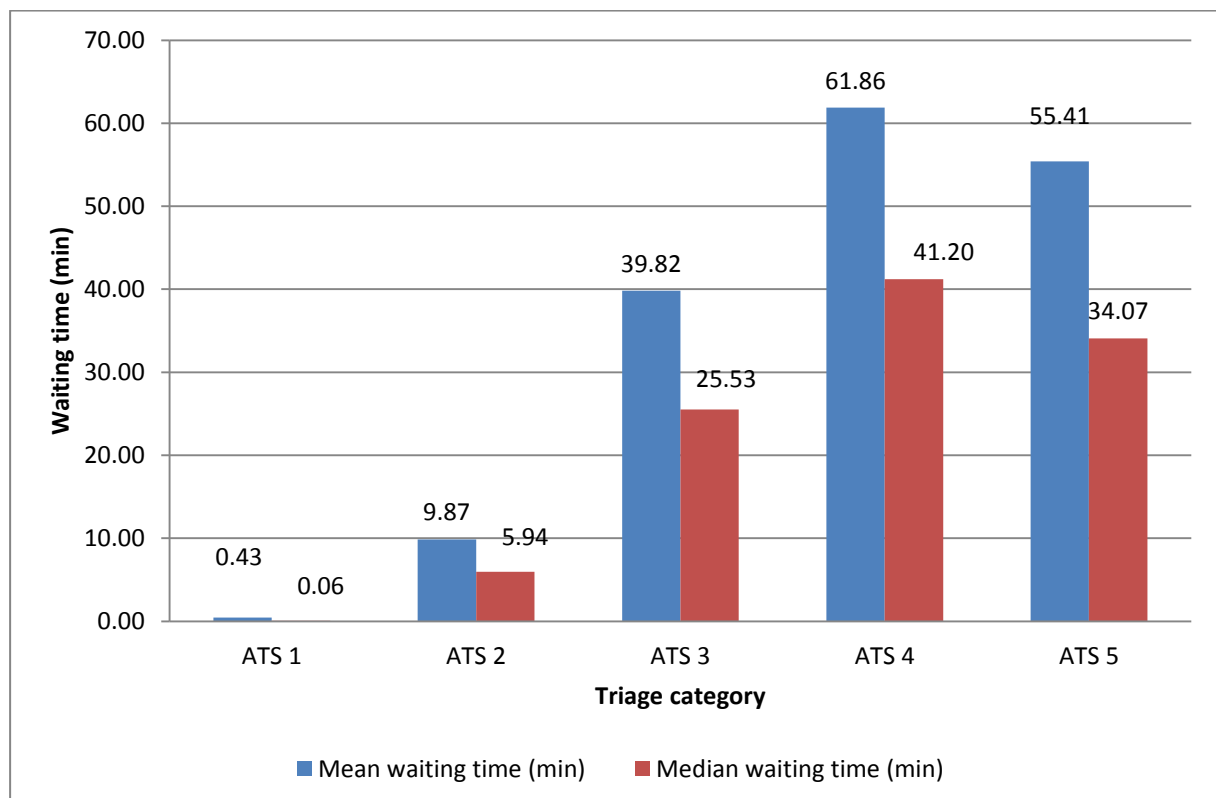
Figure 10. Mean and median waiting times for patients per triage category, for the period 1st July, 2011- 30th June, 2012

For all of the states and territories, a smaller percentage of patients were seen within the target time if they were categorised as ATS 3 or 4 (Table 20). Interestingly for all of the states and territories, more patients who were categorised as ATS 5 were seen within the target time compared to patients who were categorised as ATS 2 (Table 20).

Table 20. Percentage of patients seen within the recommended maximum waiting time (min) for each triage category, by region for the period 1st July, 2011- 30th June, 2012

Region	Triage category					n
	ATS 1	ATS 2	ATS 3	ATS 4	ATS 5	
NSW	99%	81%	69%	71%	85%	26
NT	100%	64%	49%	48%	82%	2
QLD	100%	85%	65%	68%	87%	20
SA	92%	79%	68%	70%	86%	6
TAS	99%	81%	65%	68%	88%	3
VIC	98%	81%	68%	63%	81%	20
WA	100%	72%	47%	62%	91%	8
Australia	**99%**	**81%**	**65%**	**67%**	**85%**	**85**
NZ	**100%**	**69%**	**56%**	**54%**	**74%**	**5**
Total	**99%**	**80%**	**64%**	**66%**	**85%**	**90**
n	90	89	91	89	88	

n= number of hospitals

Table 21 and Figure 11 display the percentage of patients seen within the target time for each of the Australian Triage Scale categories for each hospital role delineation category. Both the major-metropolitan and regional/rural EDs saw 100% of all category ATS 1 patients within the target time. Major-metropolitan EDs saw slightly more category ATS 2 patients within the target time at 82% compared to urban-metropolitan (80%) and regional/rural EDs (78%). However both urban-metropolitan and regional/rural EDs saw more category ATS 3 and 4 patients within the target time compared with major-metropolitan EDs.

Table 21. Percentage of patients seen within the recommended maximum waiting time (min) for each triage category, by hospital role delineation for the period 1st July, 2011- 30th June, 2012

Hospital Role Delineation	Triage category				
	ATS 1	ATS 2	ATS 3	ATS 4	ATS 5
Metropolitan- Major	100%	82%	62%	65%	84%
Metropolitan- Urban	97%	80%	65%	66%	85%
Regional/ Rural	100%	78%	66%	67%	84%
Total	**99%**	**80%**	**64%**	**66%**	**85%**
n	90	89	91	89	88

n= number of hospitals
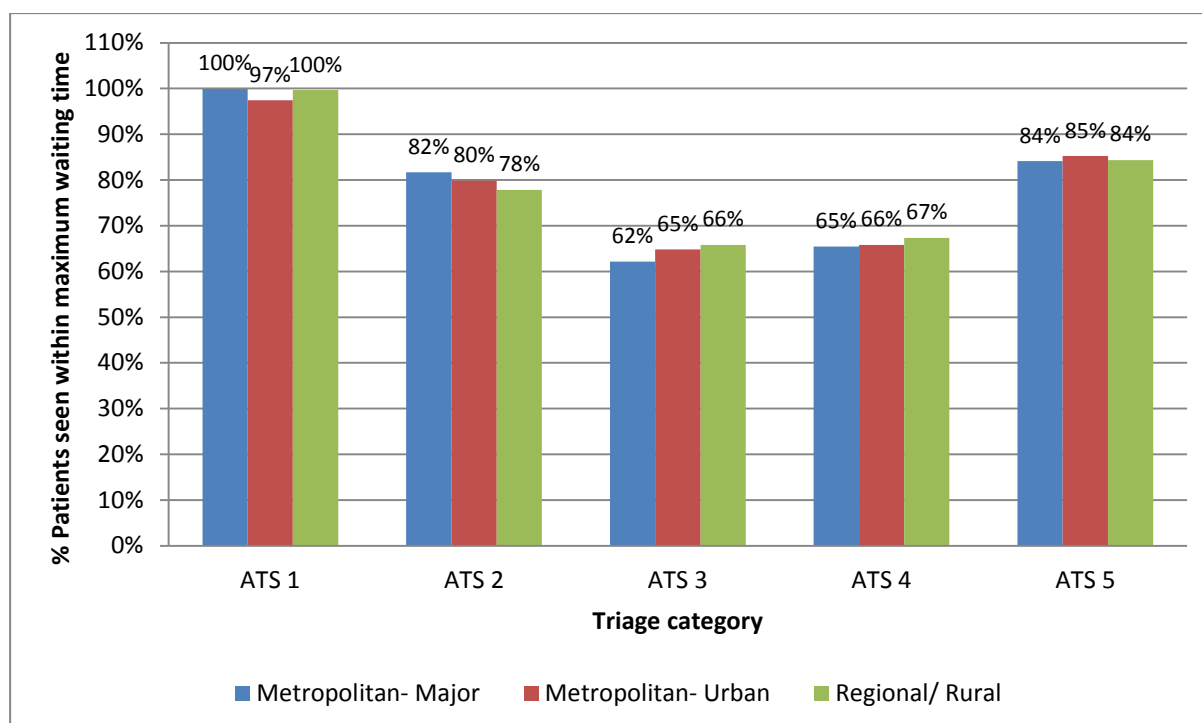
Figure 11. Percentage of patients seen within the recommended maximum waiting time (min) for each triage category, by hospital role delineation for the period 1st July, 2011- 30th June, 2012

ED performance data averaged over the period 1st July, 2011- 30th June, 2012 is presented in Table 22. This includes the percentage of patients discharged, admitted and transferred within the access target; the percentage of unplanned representations; ambulance offload rates and the total hours of ambulance bypass. The number of EDs that provided individual data is also provided. Seventy percent of all patients from the hospitals that provided data were discharged within the access target, with a further 21% admitted or transferred within the access target (Table 22).

Table 22. Average Emergency Department performance (%) and total ambulance bypass (hours) for the period 1st July, 2011- 30th June, 2012, for ACEM accredited hospitals

ED Performance Indicators	Average	n
% Patients discharged within the access target	70%	85
% Patients admitted/ transferred within the access target	24%	85
% ED attendances admitted/ discharged/ transferred within the access target	61%	85
% Access block: Patients admitted/ transferred >8 hours	37%	45
% unplanned representations	3%	24[#]
% of all ambulance attendances offloaded within 30 min	79%	49
% of all ambulance attendances offloaded within 40 min*	83%	8
Total no. hours ambulance bypass:	143.7	52

n= number of hospitals

*A number of Victorian hospitals only had data for '% of all ambulance attendances offloaded within 40min', not 30min

 # Only 26 responses received and 2 responses were excluded due to values provided that were in excess of 90%

Each of the ED performance data sets presented above are assessed in more detail in Table 23 and Figure 12 by comparing this data for each of the hospital role delineation categories. The Regional/rural hospitals that responded were more likely to discharge patients within the access target time however they were also more likely to have a higher percentage of access block compared with major and urban-metropolitan hospitals. Regional/rural hospitals also reported a higher rate of ambulance offload within 30 or 40min and reported no ambulance bypass (Figure 13).

Table 23. Average Emergency Department performance (%) and total ambulance bypass (hours) for the period 1st July 2011- 30th June 2012, by hospital role delineation

ED Performance Indicators	Metropolitan-Major		Metropolitan-Urban		Regional/ Rural	
	n	%	n	%	n	%
% Patients discharged within access target	31	68%	35	69%	19	73%
% Patients admitted/ transferred within access target	31	29%	35	20%	19	22%
% ED attendances admitted/ discharged/ transferred within access target	31	61%	34	60%	20	63%
% Access block: Patients admitted/ transferred >8 hours	18	35%	18	34%	9	48%
% unplanned representations	7[#]	6%	11	2%	6	4%
% of all ambulance attendances offloaded within 30 min	19	79%	19	77%	11	82%
% of all ambulance attendances offloaded within 40 min	3	80%	3	82%	2	87%
Total no. hours ambulance bypass:	**20**	**54.2**	**21**	**304.2**	**11**	**0**

n= number of hospitals represented
 # Only 9 responses were received from major-metropolitan hospitals, with 2 responses excluded due to values provided for unplanned representations that were in excess of 90%
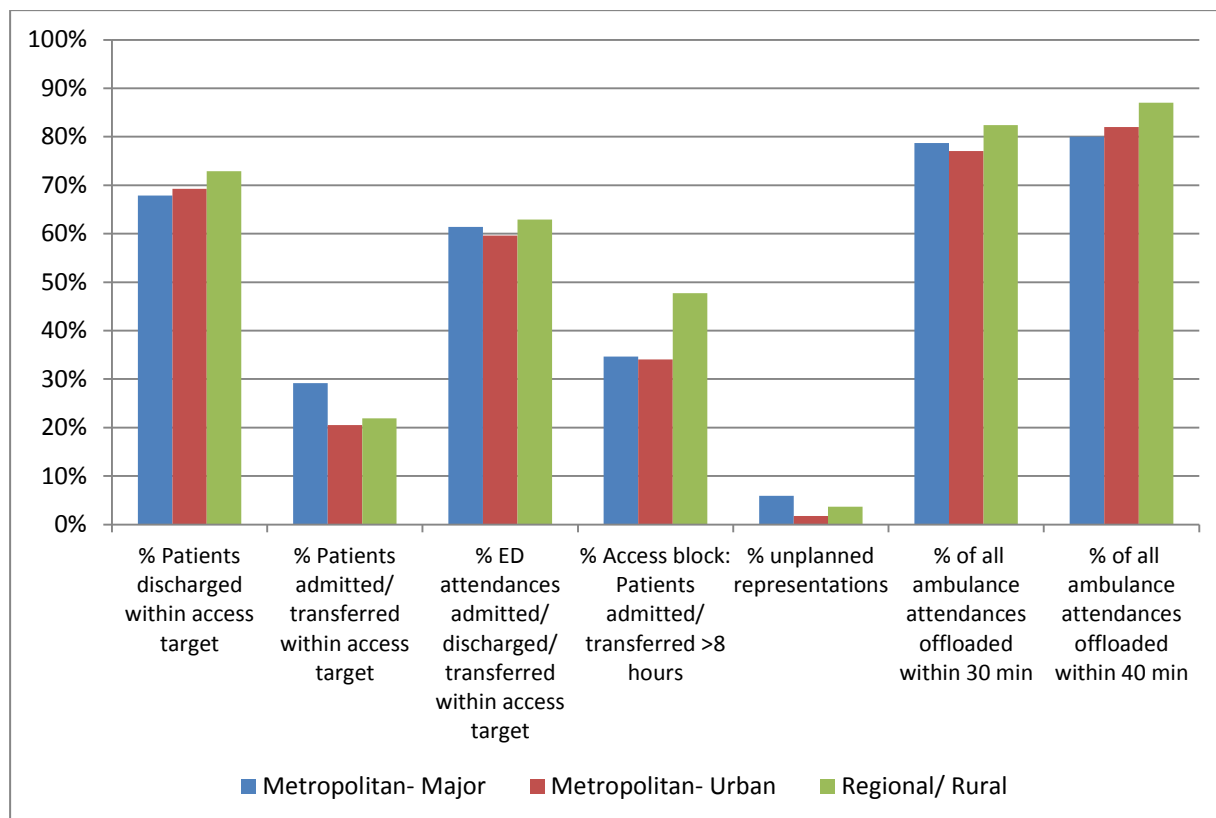
Figure 12. Average Emergency Department performance for the period 1st July 2011- 30th June 2012, by hospital role delineation
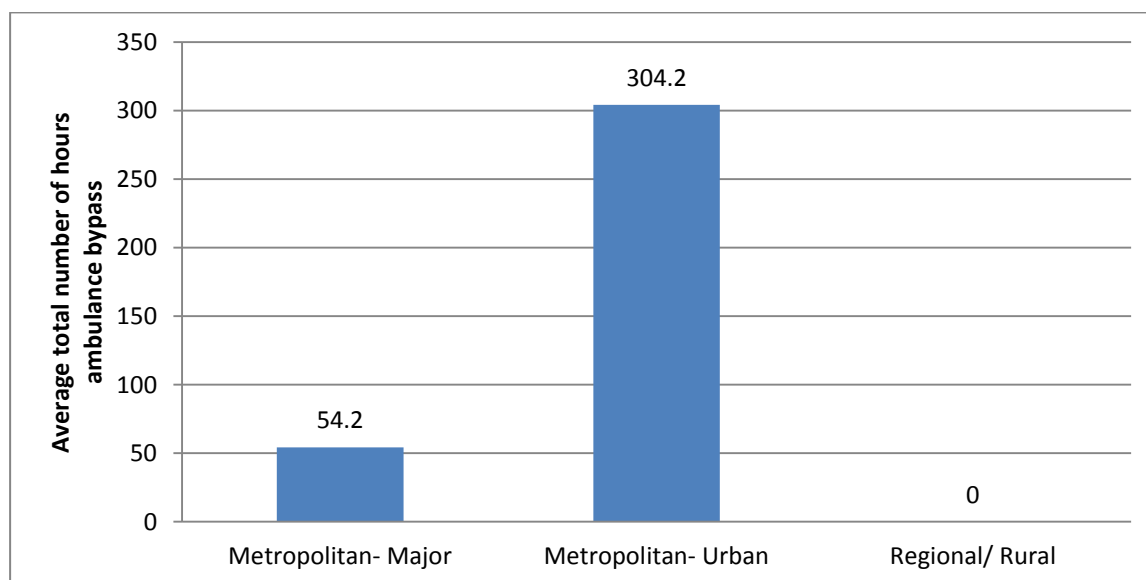
Figure 13. Average total number of hours of ambulance bypass for the period 1st July 2011- 30th June 2012, by hospital role delineation

Individual state, territory and country data is presented in Table 24 and Figure 14 for both the percentage of ED attendances which were admitted, discharged or transferred with the access target and the percentage of access block for patients who were admitted or transferred after 8 hours. Not surprisingly New Zealand had a higher percentage of patients who were admitted, discharged or transferred with the access target due to their access target being set at 6 hours, compared to the Australian target of 4 hours. Interestingly of the 80 EDs that provided data, only 59% of patients were admitted, discharged or transferred within the 4 hour access target. Of the 42 Australian EDs that provided data on access block, 39% of patients were admitted or transferred after 8 hours.

Table 24. Average percentage of ED attendances that were admitted, discharged or transferred within the access target and average percentage of access block for patients admitted or transferred after 8 hours, by region for the period 1st July 2011- 30th June 2012

Region	ED attendances admitted/ discharged/ transferred within access target		Access block: Patients admitted/ transferred >8 hours	
	n	**%**	**n**	**%**
NSW	23	53%	8	41%
NT	2	60%	1	49%
QLD	19	61%	10	36%
SA	6	61%	3	47%
TAS	3	66%	3	33%
VIC	20	56%	14	38%
WA	7	79%	3	36%
Australia	**80**	**59%**	**42**	**39%**
NZ	**5**	**89%**	**3**	**12%**
Total	**85**	**66%**	**45**	**36%**

n= The number of hospitals who responded
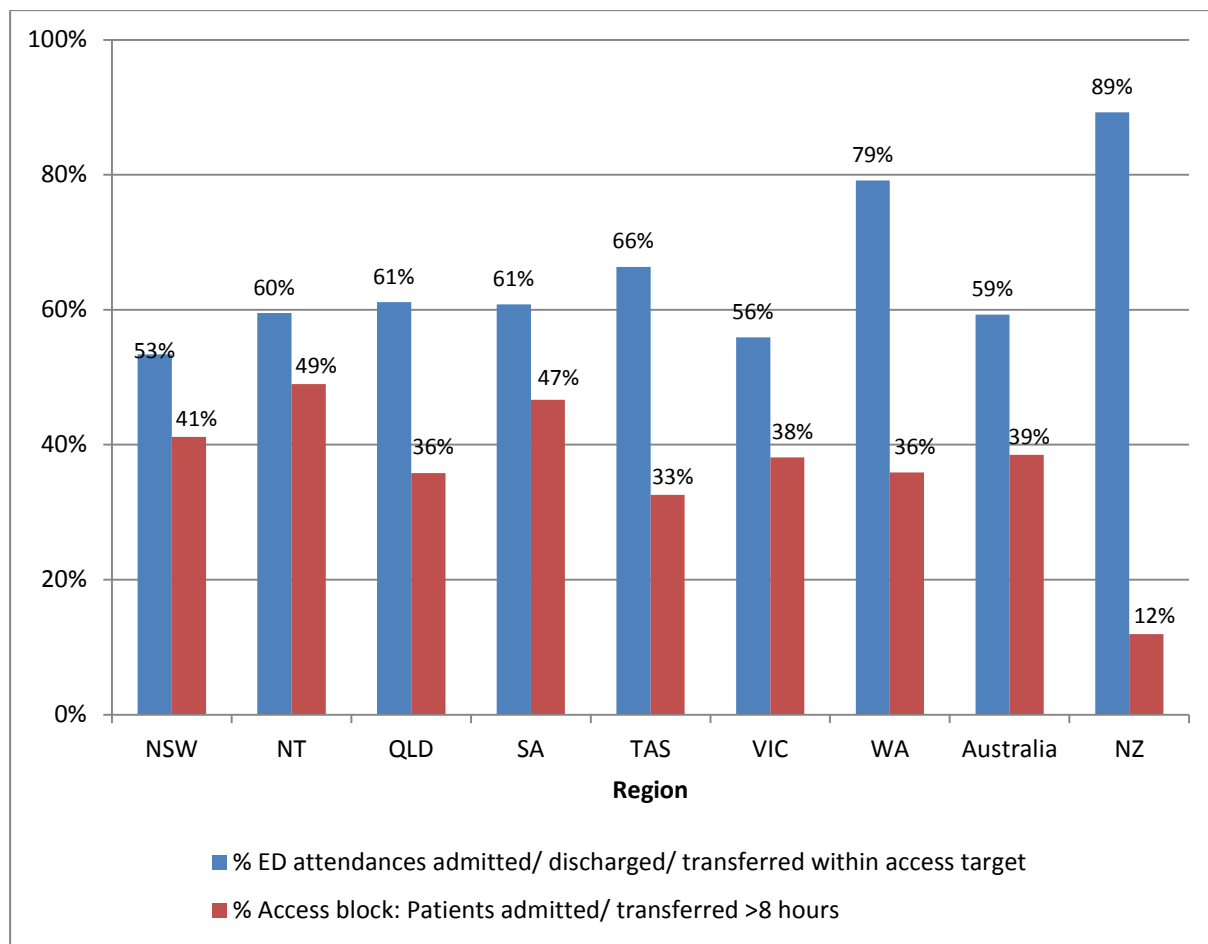
Figure 14. Average percentage of ED attendances that were admitted, discharged or transferred within the access target and average percentage of access block for patients admitted or transferred after 8 hours, by region for the period 1st July 2011- 30th June 2012

3.6. Emergency Department Quality Management

The following section contains data on the clinical indicators used within the EDs that responded for quality management/ auditing purposes; the status of the EDs with respect to the recently updated ACEM Quality Framework for EDs policy number P28; what indicators are monitored or reviewed within the EDs that responded; and whether outcomes from Quality Management System activities are communicated within the EDs or hospitals that responded. The overall response rates along with more in-depth analysis at a state, territory and country as well as at a hospital delineation level are presented below.

Table 25 presents the findings on what clinical indicators are used within each of the EDs that responded. Ninety precent of the EDs used ACHS clinical indicators, with 53% also using other clinical indicators for quality management/ auditing purposes.

Table 25. Responses (%) from 73 DEMs to what clinical indicators if any are used within their ED for quality management/ auditing purposes?

Clinical indicators	% of respondents who use:
ACHS Clinical indicators	90%
Other clinical indicators	53%
No clinical indicators	0%

Of the 70 EDs who provided a response to the question on the status of the ED with respect to the updated ACEM Quality Framework for EDs (Policy No. 28), 41% were aware of the update but had not implemented the updates within their ED, 43% had implemented the updates within their ED and 16% were not aware of the updates (Table 26).

Table 26. Response rates (%) to the statement, 'ACEM Quality Framework for EDs (Policy No. 28) was introduced in 2007 and has been recently updated. Is your ED:'

	% of respondents who were
Not aware of it	16%
Aware of it but has not been implemented in ED	41%
Implemented in ED	43%
Total	**100%**

With respect to the updated ACEM Quality Framework for EDs (Policy No. 28), 46% of the Australian EDs that responded had implemented the updates, while only 14% of New Zealand hospitals had (Table 27, Figure 15).

Table 27. Response rates (%) by region to the statement, 'ACEM Quality Framework for EDs (Policy No. 28) was introduced in 2007 and has been recently updated. Is your ED:

		Region								Total
		NSW	NT	QLD	SA	TAS	VIC	WA	Australia	NZ	
Not aware of it		0%	0%	13%	40%	33%	11%	50%	16%	14%	**16%**
Aware of it but has not been implemented in ED		43%	0%	33%	0%	67%	53%	17%	38%	71%	**41%**
Implemented in ED		57%	100%	53%	60%	0%	37%	33%	46%	14%	**43%**
Total	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	n	14	1	15	5	3	19	6	63	7	70

n= The number of DEMs who responded
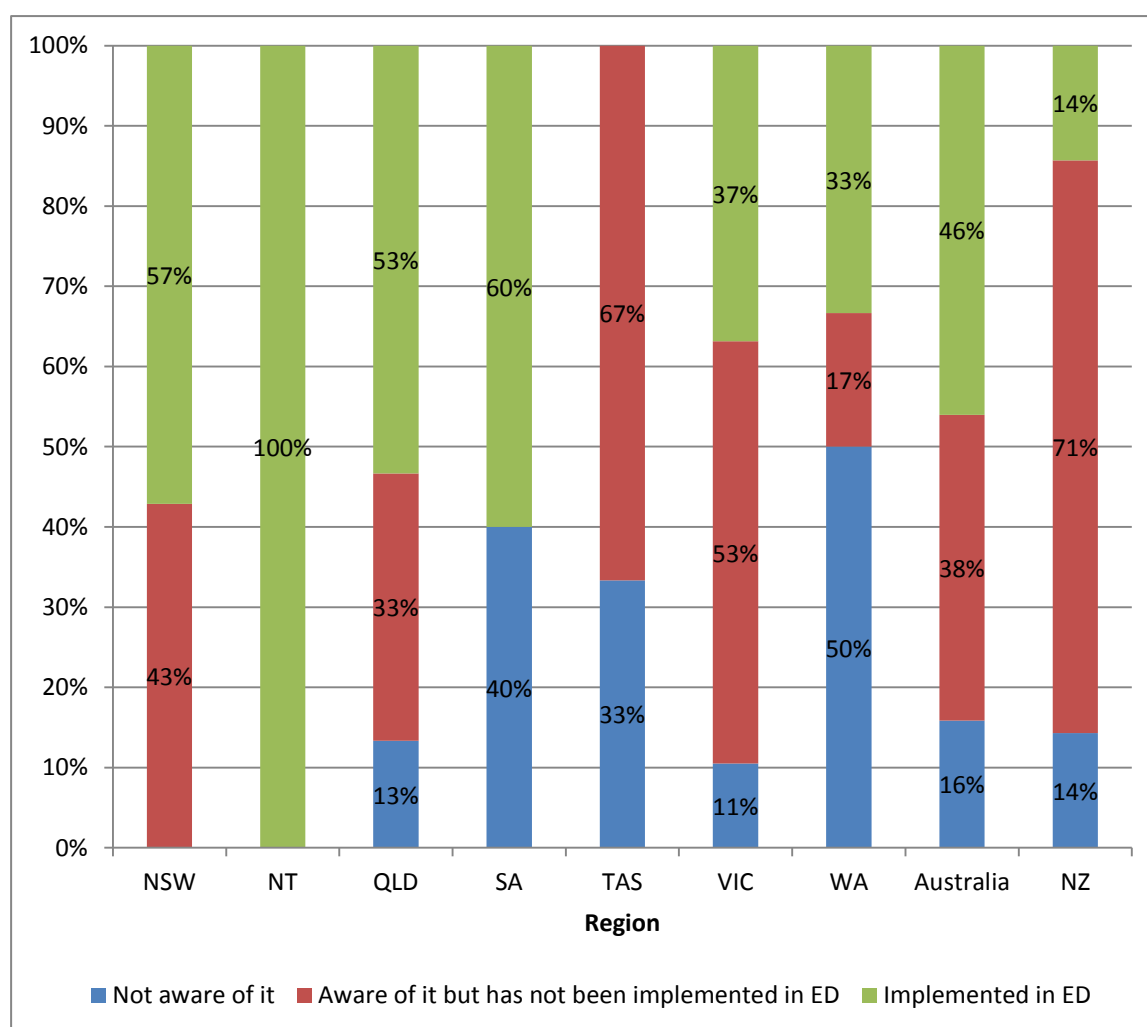
Figure 15. Response rates (%) by region to the statement, 'ACEM Quality Framework for EDs (Policy No. 28) was introduced in 2007 and has been recently updated. Is your ED…:'

Table 28 presents the response rates with respect to the updated ACEM Quality Framework for EDs (Policy No. 28) at hospital role delineation level. Fifty-four percent of the major-metropolitan EDs that responded had implemented the updates, compared to 39% and 33% for urban-metropolitan and Regional/Rural hospitals respectively.

Table 28. Response rates (%) to the statement, 'ACEM Quality Framework for EDs (Policy No. 28) was introduced in 2007 and has been recently updated. Is your ED:', by role delineation

	Hospital Role Delineation			Total (%)
	Metropolitan- Major	Metropolitan- Urban	Regional/Rural	
Not aware of it	17%	21%	6%	**16%**
Aware of it but has not been implemented in ED	29%	39%	61%	**41%**
Implemented in ED	54%	39%	33%	**43%**
n	24	28	18	**70**

n= The number of DEMs who provided a response

The Quality Management System (QMS) indicators that are monitored or reviewed by the 75 EDs that responded are shown in Table 29. A large majority of EDs monitored and/or reviewed patient waiting times (97%), incidences (96%), ED deaths (96%), ED complaints (97%) and conducted ED satisfaction surveys (81%).

Table 29. Response rates (%) to the question, 'Does the QMS in your ED include monitoring/ review of the following indicators?' (n= 75):

Indicators monitored or reviewed in your ED	Total
No indicators are monitored (i.e. there is no QMS in my ED)	0%
Patient waiting times	97%
Incident monitoring	96%
All ED deaths	96%
Investigations ordered in ED	63%
Clinical practice guideline/protocol compliance	51%
Follow-up of all ED complaints	97%
ED patient satisfaction surveys	81%
ED staff satisfaction surveys	56%
Other	27%

Table 30 provides a further breakdown of the QMS indicators that are monitored or reviewed by each of the EDs by state, territory or country.

Table 30. Response rates (%) by region to the question, 'Does the QMS in your ED include monitoring/ review of the following indicators?'

Indicators monitored or reviewed	Region								Total	
	NSW	NT	QLD	SA	TAS	VIC	WA	NZ	%	n
No indicators are monitored (i.e. there is no QMS in my ED)	0%	0%	0%	0%	0%	0%	0%	0%	**0%**	**0**
Patient waiting times	88%	100%	100%	100%	100%	100%	100%	100%	**97%**	**73**
Incident monitoring	100%	100%	100%	100%	67%	100%	100%	71%	**96%**	**72**
All ED deaths	94%	100%	100%	100%	67%	100%	100%	86%	**96%**	**72**
Investigations ordered in ED	69%	100%	69%	17%	100%	75%	50%	29%	**63%**	**47**
Clinical practice guideline/protocol compliance	69%	100%	50%	67%	0%	50%	33%	29%	**51%**	**38**
Follow-up of all ED complaints	94%	100%	94%	100%	100%	100%	100%	100%	**97%**	**73**
ED patient satisfaction surveys	81%	100%	94%	83%	33%	90%	100%	29%	**81%**	**61**
ED staff satisfaction surveys	38%	100%	69%	33%	67%	65%	67%	43%	**56%**	**42**
Other	25%	0%	13%	33%	33%	30%	17%	57%	**27%**	**20**
Total no. of hospitals	**16**	**1**	**16**	**6**	**3**	**20**	**6**	**7**		**75**

% is the total percentage of all responses
n= The total number of responses per indicator

Table 31 provides the breakdown of the QMS indicators that are monitored or reviewed by each of the EDs by hospital role delineation. A similar percentage of each of the three hospital role delineations monitored/ reviewed most of the listed indicators, including patient waiting times, incident monitoring, ED deaths, ED investigations, clinical practice/ guideline compliance and follow-up of ED complaints. Urban-metropolitan hospitals however were more likely to undertake patient satisfaction surveys and staff satisfaction surveys.

Table 31. Response rates (%) by hospital role delineation to the question, 'Does the QMS in your ED include monitoring/ review of the following indicators?'

Indicators monitored or reviewed	Role delineation			Total	
	Metropolitan-Major	Metropolitan-Urban	Regional/Rural	%	n
No indicators are monitored (i.e. there is no QMS in my ED)	0%	0%	0%	**0%**	**0**
Patient waiting times	100%	97%	95%	**97%**	**73**
Incident monitoring	96%	100%	89%	**96%**	**72**
All ED deaths	92%	97%	100%	**96%**	**72**
Investigations ordered in ED	69%	57%	63%	**63%**	**47**
Clinical practice guideline/protocol compliance	54%	50%	47%	**51%**	**38**
Follow-up of all ED complaints	100%	97%	95%	**97%**	**73**
ED patient satisfaction surveys	73%	93%	74%	**81%**	**61**
ED staff satisfaction surveys	50%	67%	47%	**56%**	**42**
Other	35%	23%	21%	**27%**	**20**
Total number of hospitals	**26**	**30**	**19**		**75**

% is the total percentage of all responses
n= The total number of responses per indicator

Other QMS related indicators that were monitored by the EDs that responded, included representations, short stay outcomes, time to analgesia and time to antibiotics. Refer to Table 32 for the complete list of other indicators monitored or reviewed.

Table 32. Other indicators identified by respondents that are monitored or reviewed within their ED

Other indicators monitored within the ED	n	% of total responses
Representations	3	15%
Short stay outcomes	3	15%
Time to analgesia	3	15%
Time to antibiotics	3	15%
ACEM framework being implemented	2	10%
Audit Drug chart compliance	2	10%
Overnight discharge review	2	10%
Pathology/ radiology results review	2	10%
Time to thrombolysis	2	10%
Audit- Door to balloon times, D-Dimer use, ACS pathway use	1	5%
Audit- Femoral Nerve Block for suspected neck of femur fractures	1	5%
Audits highly represented Diagnosis Related Groups	1	5%
DNW reviews	1	5%
Exam pass rates	1	5%
FACEM performance reviews	1	5%
Follow-up of patients post discharge	1	5%
Hand hygiene review	1	5%
length of stay- ED/ SSU	1	5%
Misdiagnosis/ medication errors	1	5%
Mortality/Morbidity review	1	5%
Patient safety 'walk-arounds'	1	5%
Review paediatric charts	1	5%
Team building/ workplace attitudes	1	5%
Total	**20**	
Total no. of comments	**36**	

n= The number of DEMs who provided a response

When asked whether outcomes from QMS review activities of their ED are widely communicated, 92% of DEMs responded saying they were within their ED and 47% responded saying they were within their hospital (Table 33).

Table 33. DEM responses (%) to the question that 'Outcomes from QMS review activities of your ED are widely communicated…'

	YES	NO	N/A	Total	
				%	**n**
Within your ED?	92%	7%	1%	**100%**	**72**
Within your hospital?	47%	51%	1%	**100%**	**68**

n= The total number of responses per region

Responses to whether outcomes from QMS review activities of their ED are widely communicated within the ED or hospital were further analysed at a state, territory and country level in Table 34.

Table 34. DEM responses (%), by region to the question that 'Outcomes from QMS review activities of your ED are widely communicated within your… ED (72 DEMs provided a response) OR within your hospital (68 DEMs provided a response)

Region	Within your ED?			Total		Within your hospital?			Total	
	YES	NO	N/A	%	n	YES	NO	N/A	%	n
NSW	100%	0%	0%	**100%**	**15**	29%	71%	0%	**100%**	**14**
NT	100%	0%	0%	**100%**	**1**	100%	0%	0%	**100%**	**1**
QLD	87%	13%	0%	**100%**	**15**	57%	43%	0%	**100%**	**14**
SA	100%	0%	0%	**100%**	**5**	60%	40%	0%	**100%**	**5**
TAS	33%	33%	33%	**100%**	**3**	0%	67%	33%	**100%**	**3**
VIC	100%	0%	0%	**100%**	**20**	58%	42%	0%	**100%**	**19**
WA	100%	0%	0%	**100%**	**6**	60%	40%	0%	**100%**	**5**
Australia	94%	5%	2%	**100%**	**65**	49%	49%	2%	**100%**	**61**
NZ	71%	29%	0%	**100%**	**7**	29%	71%	0%	**100%**	**7**

% is the total percentage of all responses per region
n= The total number of responses per region

At a hospital delineation level, urban-metropolitan hospitals were more likely to have outcomes from QMS review activities communicated both within their ED (97%) and within their hospital (56%), compared with major-metropolitan and regional/rural hospitals (Table 35).

Table 35. DEM responses (%), by hospital type to the question that 'Outcomes from QMS review activities of your ED are widely communicated…'

Role delineation	Within your ED?			Total		Within your hospital?			Total	
	YES	NO	N/A	%	n	YES	NO	N/A	%	n
Metropolitan-Major	88%	12%	0%	**100%**	**25**	48%	52%	0%	**100%**	**25**
Metropolitan-Urban	97%	3%	0%	**100%**	**29**	56%	44%	0%	**100%**	**27**
Regional/Rural	89%	6%	6%	**100%**	**18**	31%	63%	6%	**100%**	**16**

% is the total percentage of all responses per hospital role delineation
n= The total number of responses per hospital role delineation

3.7. Access Targets

Within this section, DEM perceptions on access targets including levels of support for access targets among ED workers, system reforms and the effects of the implementation of access targets are presented with overall responses, response by country and response by hospital role delineation.

Overall support (%) for time-based access targets according to the DEMs who responded, was perceived to be greatest among Emergency Physicians, nursing staff and senior management (Table 36). The lowest perceived support for access-based target according to DEMs was among clinical staff in other departments and junior doctors/ CMOs. Refer to Table 36 and Figure 16 for further details.

Table 36. Response rates (%) of DEM perceptions on the overall levels of support for time-based access targets among:

	No- Minority Support	Equally Divided Support	Majority-Unanimous Support	Total	
				%	n
Emergency Physicians (FACEMs) working in your ED	12.5%	18%	69%	**100%**	**72**
Registrars (ACEM trainees) working in your ED	14%	29%	57%	**100%**	**70**
Junior doctors/CMOs working in your ED	22%	48%	30%	**100%**	**67**
Nursing staff working in your ED	10%	28%	63%	**100%**	**72**
Clinical staff in other departments of your hospital	70%	18%	11%	**100%**	**71**
Clinical leadership at your hospital	24%	20 29%	47%	**100%**	**70**
Senior management at your hospital	20%	14%	66%	**100%**	**70**

n= the total number of DEM responses to perceived support for access-based targets
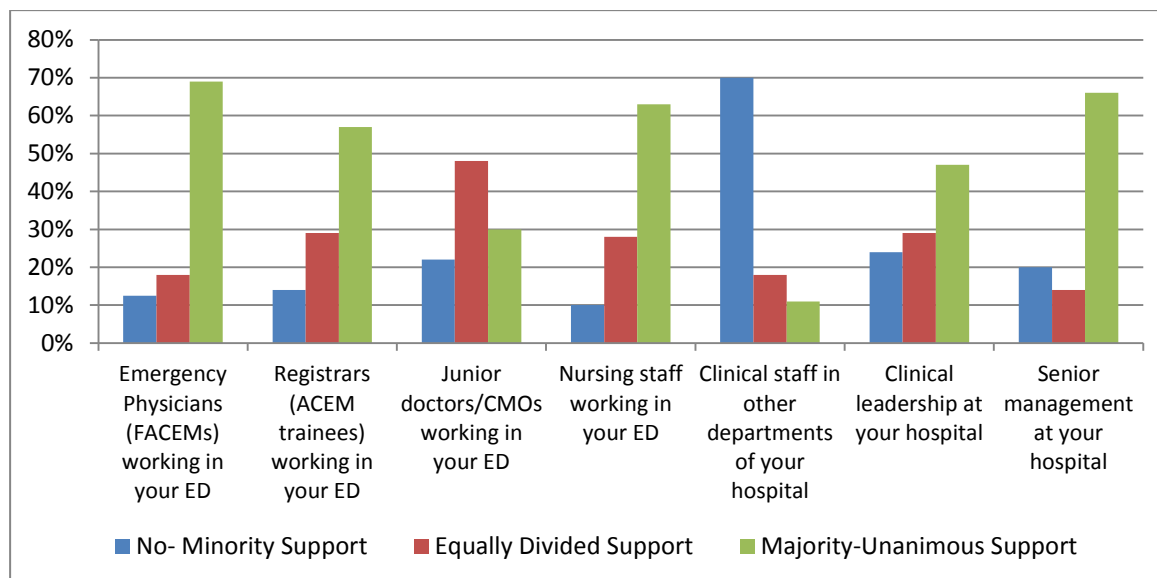
Figure 16. Response rates (%) of DEM perceptions on the overall levels of support for time-based access targets among:

Table 37 contains the percentages for the overall support for time-based access targets according to the DEMs who responded, by hospital role delineation. The lack of perceived support for time-based access targets by DEMs among clinical staff in other departments was consistent between each of the hospital role delineations. Perceived levels of support for time-based access targets among Emergency physicians, ED nursing staff and senior management were similarly majority-unanimous support among each of the hospital delineations. Interestingly a large percentage of DEMs perceived majority-unanimous support for time-based access targets among registrars in both urban-metropolitan and regional/rural hospitals at 59% and 69% majority-unanimous support respectively, compared to 48% in major-metropolitan hospitals.

Table 37. Response rates (%) of DEM perceptions, by role delineation on the overall levels of support for time-based access targets among:

		No/ Minority Support	Equally Divided Support	Majority/ Unanimous Support	Total	
					%	n
Metropolitan- Major	Emergency Physicians (FACEMs) working in your ED	8%	20%	72%	100%	25
	Registrars (ACEM trainees) working in your ED	8%	44%	48%	100%	25
	Junior doctors/CMOs working in your ED	17%	63%	21%	100%	24
	Nursing staff working in your ED	8%	32%	60%	100%	25
	Clinical staff in other departments of your hospital	64%	28%	8%	100%	25
	Clinical leadership at your hospital	25%	33%	42%	100%	24
	Senior management at your hospital	25%	13%	63%	100%	24
Metropolitan- Urban	Emergency Physicians (FACEMs) working in your ED	17%	13%	70%	100%	30
	Registrars (ACEM trainees) working in your ED	24%	17%	59%	100%	29
	Junior doctors/CMOs working in your ED	30%	41%	30%	100%	27
	Nursing staff working in your ED	13%	23%	63%	100%	30
	Clinical staff in other departments of your hospital	73%	17%	10%	100%	30
	Clinical leadership at your hospital	27%	23%	50%	100%	30
	Senior management at your hospital	20%	13%	67%	100%	30
Regional/ Rural	Emergency Physicians (FACEMs) working in your ED	12%	24%	65%	100%	17
	Registrars (ACEM trainees) working in your ED	6%	25%	69%	100%	16
	Junior doctors/CMOs working in your ED	19%	38%	44%	100%	16
	Nursing staff working in your ED	6%	29%	65%	100%	17
	Clinical staff in other departments of your hospital	75%	6%	19%	100%	16
	Clinical leadership at your hospital	19%	31%	50%	100%	16
	Senior management at your hospital	13%	19%	69%	100%	16

*n= the total number of DEM responses to perceived support for access-based targets, by hospital role delineation.*

The perceptions of DEMs for support for time-based access targets among various ED staff is displayed in Table 38, for a) Australia and b) New Zealand. New Zealand DEMs perceived there to be a greater percentage of ED physician, senior management and clinical leadership within their hospitals who had majority-unanimous support for time-based access targets, compared to Australian DEMs. Refer to Table 38 for further details.

Table 38. Response rates (%) of DEM perceptions, by country a) Australia, b) New Zealand, on the overall levels of support for time-based access targets among:

a) Australia	Australia				
	No- Minority Support	Equally Divided Support	Majority-Unanimous Support	Total (%)	(n)
Emergency Physicians (FACEMs) working in your ED	14%	18%	68%	100%	65
Registrars (ACEM trainees) working in your ED	14%	29%	57%	100%	63
Junior doctors/CMOs working in your ED	23%	45%	32%	100%	60
Nursing staff working in your ED	11%	28%	62%	100%	65
Clinical staff in other departments of your hospital	73%	17%	9%	100%	64
Clinical leadership at your hospital	25%	30%	44%	100%	63
Senior management at your hospital	21%	16%	63%	100%	63

n=The total number of DEMs who responded

b) New Zealand	New Zealand			
	No- Minority Support	Equally Divided Support	Majority-Unanimous Support	Total (%)
Emergency Physicians (FACEMs) working in your ED	0%	14%	86%	100%
Registrars (ACEM trainees) working in your ED	14%	29%	57%	100%
Junior doctors/CMOs working in your ED	14%	71%	14%	100%
Nursing staff working in your ED	0%	29%	71%	100%
Clinical staff in other departments of your hospital	43%	29%	29%	100%
Clinical leadership at your hospital	14%	14%	71%	100%
Senior management at your hospital	14%	0%	86%	100%

n= 7: The total number of DEMs who responded from New Zealand

Table 39 and Figure 17 display the overall DEM response rates with respect to 'system reforms as a result of implementation of time-based access targets', with 73% and 57% respectively of those who responded stating that ED redesign and hospital redesign had been implemented. The majority of DEMs reported that no additional staff had been employed (74%), no additional acute in-patient beds had been provided (90%) and that there was no improved access to radiology (74%) or pathology services (71%).

Table 39. Response rates (%) to whether system reforms as a result of implementation of time-based access targets have been implemented to meet access targets:

	Yes	No	N/A	Total (%)	n
ED Redesign has been implemented	73%	21%	6%	**100%**	**70**
Additional staff have been employed	21%	74%	6%	**100%**	**72**
Hospital redesign has been implemented	57%	37%	6%	**100%**	**67**
Additional acute in-patient beds have been provided	4%	90%	6%	**100%**	**72**
Improved ED access to radiology services has been implemented	18%	74%	8%	**100%**	**72**
Improved ED access to pathology services has been implemented	19%	71%	10%	**100%**	**72**

n= The total number of DEMs who responded

Figure 17. Response rates (%) to whether system reforms as a result of the implementation of time-based access targets have been implemented to meet the access targets

Table 40 presents the overall DEM response rates with respect to 'system reforms as a result of implementation of time-based access targets', according to hospital role delineation. Regional/rural hospitals reported a greater percentage of ED and hospital redesign having been implemented compared with major-metropolitan or urban-metropolitan hospitals. Regional/rural hospitals also reported slightly higher levels of improved ED access to radiology and pathology services compared with the other hospital role delineations.

Table 40. Response rates (%) to whether system reforms as a result of the implementation of time-based access targets have been implemented, by hospital role delineation

	Metropolitan- Major					Metropolitan- Urban					Regional/ Rural				
	Yes	No	N/A	Total (%)	n	Yes	No	N/A	Total (%)	n	Yes	No	N/A	Total (%)	n
ED Redesign has been implemented	74%	22%	4%	**100%**	**23**	67%	23%	10%	**100%**	**30**	82%	18%	0%	**100%**	**17**
Additional staff have been employed	32%	64%	4%	**100%**	**25**	7%	83%	10%	**100%**	**30**	29%	71%	0%	**100%**	**17**
Hospital redesign has been implemented	55%	41%	5%	**100%**	**22**	53%	37%	10%	**100%**	**30**	67%	33%	0%	**100%**	**15**
Additional acute in-patient beds have been provided	8%	88%	4%	**100%**	**25**	6%	84%	9%	**100%**	**32**	6%	94%	0%	**100%**	**17**
Improved ED access to radiology services has been implemented	16%	80%	4%	**100%**	**25**	13%	77%	10%	**100%**	**30**	29%	59%	12%	**100%**	**17**
Improved ED access to pathology services has been implemented	20%	68%	12%	**100%**	**25**	7%	83%	10%	**100%**	**30**	41%	53%	6%	**100%**	**17**

n= The total number of DEMs who responded

Table 41 displays the response rates in percentages for Australian and New Zealand hospitals with respect to system reforms due to the implementation of time-based access targets. Australian hospitals were more likely to have implemented ED and hospital redesign at 75% and 58% respectively compared to New Zealand hospitals at 57% and 43% respectively. New Zealand hospitals were however more likely to have employed additional staff in response to time-based access targets at 57% compared to only 17% of Australian hospitals.
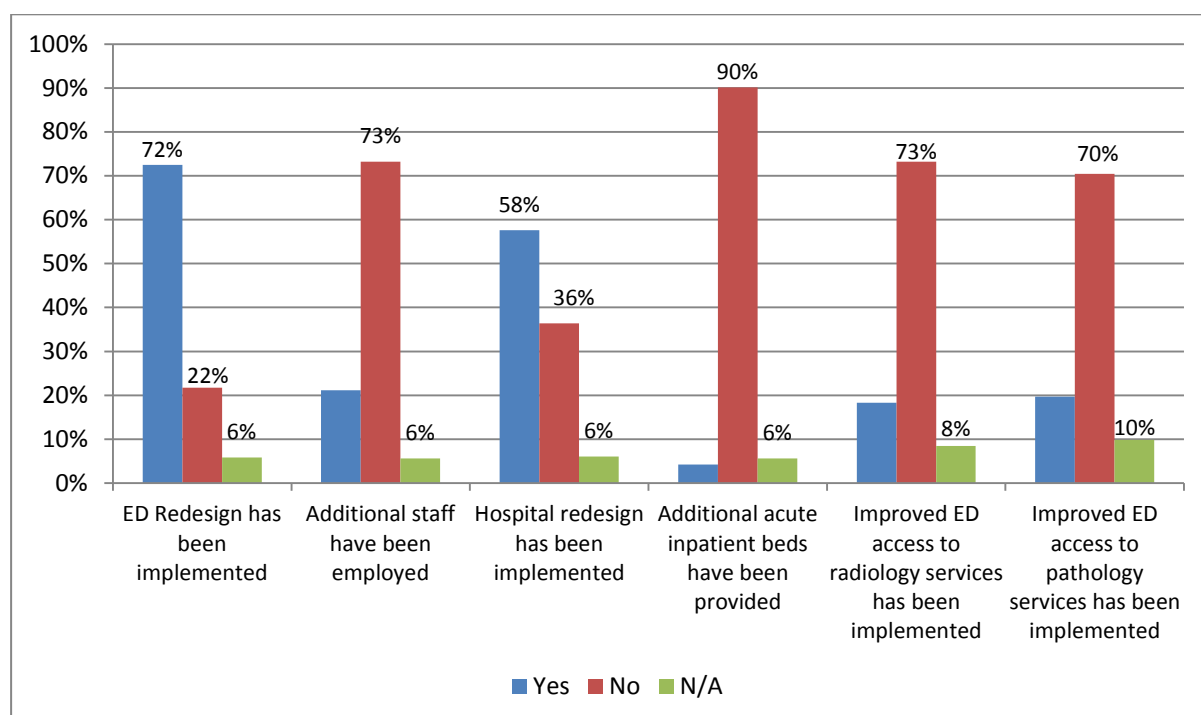
Table 41. Response rates (%) to whether system reforms as a result of the implementation of time-based access targets have been implemented, by country

	Australia					New Zealand				
	Yes	**No**	**N/A**	**Total (%)**	**n**	**Yes**	**No**	**N/A**	**Total (%)**	**n**
ED Redesign has been implemented	75%	19%	6%	**100%**	63	57%	43%	0%	**100%**	**7**
Additional staff have been employed	17%	77%	6%	**100%**	65	57%	43%	0%	**100%**	**7**
Hospital redesign has been implemented	58%	35%	7%	**100%**	60	43%	57%	0%	**100%**	**7**
Additional acute in-patient beds have been provided	5%	89%	6%	**100%**	65	0%	100%	0%	**100%**	**7**
Improved ED access to radiology services has been implemented	17%	74%	9%	**100%**	65	29%	71%	0%	**100%**	**7**
Improved ED access to pathology services has been implemented	20%	69%	11%	**100%**	65	14%	86%	0%	**100%**	**7**

n= The total number of DEMs who responded

Overall DEM perceptions on the benefits of the implementation of time-based access targets are presented in Table 42 and Figure 18. A greater percentage of DEMs agreed or strongly agreed with the statements that time-based access targets: increased the efficiency of operations in the ED (57%); improved bed management processes (47%); improved patient flow (45%); and were a good measure of hospital performance (61%). However a greater percentage of DEMs disagreed or strongly disagreed with the statements that time-based access targets: reduced access block (53%) or overcrowding (59%) at their hospital, improved training experiences for registrars (57%), or were a good measure of ED performance.

Table 42. DEM response rates (%) to perceptions on the effects of implementation of time-based access targets

Time-based access targets have/are:	Disagree-strongly disagree	Neutral	Agree-Strongly agree	Total (%)	n
Increased the efficiency of operations in your ED	23%	20%	57%	**100%**	**71**
Improved bed management processes at your hospital	28%	25%	47%	**100%**	**71**
Improved patient flow in your hospital	32%	23%	45%	**100%**	**71**
Reduced access block at your hospital	53%	16%	31%	**100%**	**70**
Reduced overcrowding at your hospital	59%	10%	30%	**100%**	**69**
Improved training experiences for registrars at your hospital	57%	34%	9%	**100%**	**70**
A good measure of ED performance	61%	24%	15%	**100%**	**71**
A good measure of hospital performance	24%	15%	61%	**100%**	**67**
Helped improve quality of clinical care provided to ED patients	40%	37%	23%	**100%**	**70**

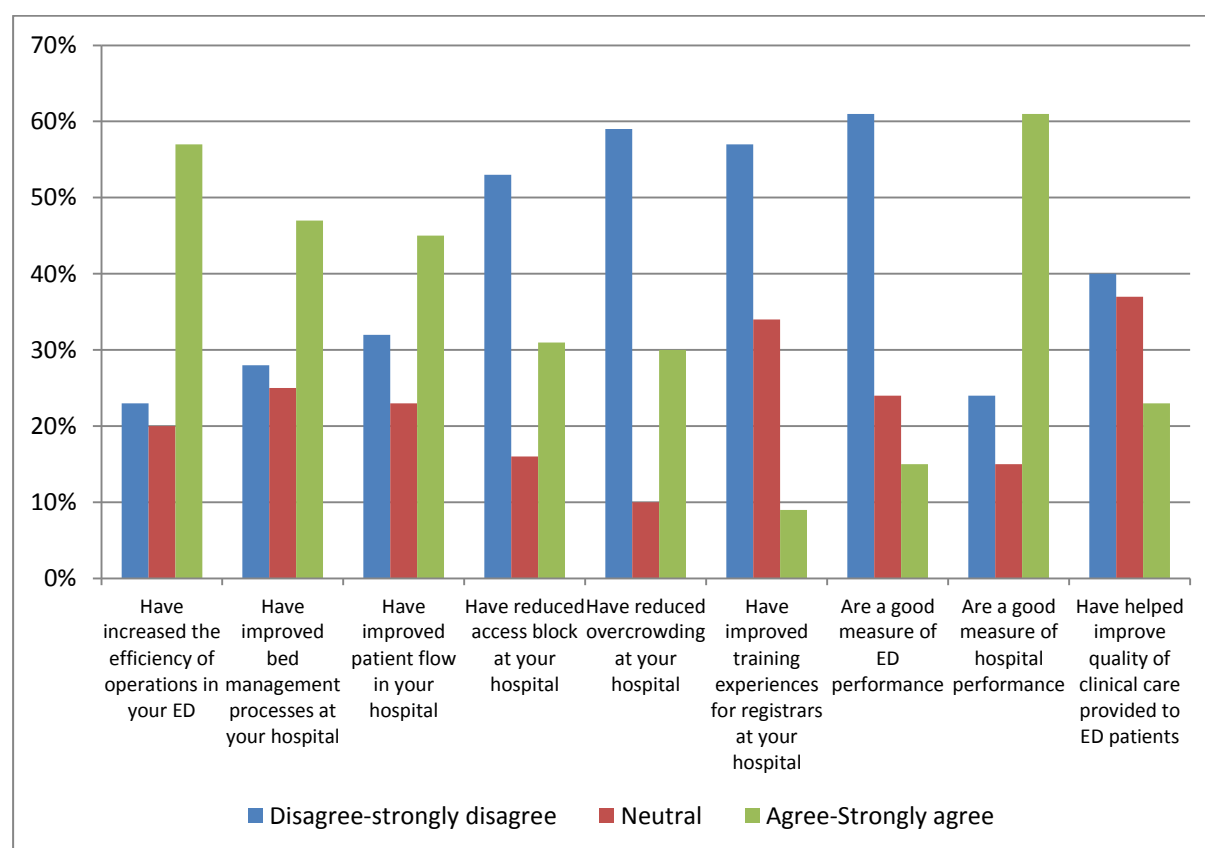*n= The total number of DEMs who responded*

Figure 18. DEM response rates (%) to perceptions on the effects of implementation of Time-based Access Targets

The perceptions of DEMs on the effects of the implementation of time-based access targets are presented in Table 43. A much higher percentage of New Zealand DEMs agreed or strongly agreed with the statements that time-based access targets have increased the efficiency of operations in their ED, have improved bed management, have improved patient flow, have reduced access block and overcrowding and are a good measure of hospital performance, compared to Australian DEMs.

Table 43. DEM response rates (%) to perceptions on the effects of implementation of time-based access targets, by country

Time-based access targets have/are:	Australia					New Zealand				
	Disagree-Strongly Disagree	Neutral	Agree-Strongly Agree	Total (%)	n	Disagree-Strongly Disagree	Neutral	Agree-Strongly Agree	Total (%)	n
Increased the efficiency of operations in your ED	25%	22%	53%	**100%**	64	0%	0%	100%	**100%**	7
Improved bed management processes at your hospital	31%	28%	41%	**100%**	64	0%	0%	100%	**100%**	7
Improved patient flow in your hospital	36%	25%	39%	**100%**	64	0%	0%	100%	**100%**	7
Reduced access block at your hospital	57%	17%	25%	**100%**	63	14%	0%	86%	**100%**	7
Reduced overcrowding at your hospital	63%	11%	26%	**100%**	62	29%	0%	71%	**100%**	7
Improved training experiences for registrars at your hospital	59%	35%	6%	**100%**	63	43%	29%	29%	**100%**	7
A good measure of ED performance	61%	25%	14%	**100%**	64	57%	14%	29%	**100%**	7
A good measure of hospital performance	26%	16%	57%	**100%**	61	0%	0%	100%	**100%**	6
Helped improve quality of clinical care provided to ED patients	43%	37%	21%	**100%**	63	14%	43%	43%	**100%**	7

n= The total number of DEMs who responded

Table 44 presents the perceptions of the DEMs regarding the impact of the implementation of time-based access targets, according to hospital role delineation. DEMs from major-metropolitan hospitals were more inclined to agree or strongly agree with the statements that time-based access targets have increased the efficiency of operations in the ED, have reduced access block or have reduced overcrowding in their ED compared to DEMs from urban-metropolitan or regional/rural hospitals.

Table 44. DEM response rates (%) to perceptions on the effects of implementation of time-based access targets, by role delineation

	Time-based access targets have/are:	Disagree-Strongly Disagree	Neutral	Agree-Strongly Agree	Total (%)	n
Major-Metropolitan	Increased the efficiency of operations in your ED	20%	12%	68%	**100%**	**25**
	Improved bed management processes at your hospital	20%	32%	48%	**100%**	**25**
	Improved patient flow in your hospital	32%	20%	48%	**100%**	**25**
	Reduced access block at your hospital	42%	8%	50%	**100%**	**24**
	Reduced overcrowding at your hospital	48%	12%	40%	**100%**	**25**
	Improved training experiences for registrars at your hospital	48%	40%	12%	**100%**	**25**
	A good measure of ED performance	56%	28%	16%	**100%**	**25**
	A good measure of hospital performance	17%	17%	65%	**100%**	**23**
	Helped improve quality of clinical care provided to ED patients	32%	44%	24%	**100%**	**25**
Urban-Metropolitan	Increased the efficiency of operations in your ED	17%	24%	59%	**100%**	**29**
	Improved bed management processes at your hospital	28%	24%	48%	**100%**	**29**
	Improved patient flow in your hospital	31%	21%	48%	**100%**	**29**
	Reduced access block at your hospital	48%	28%	24%	**100%**	**29**
	Reduced overcrowding at your hospital	59%	15%	26%	**100%**	**27**
	Improved training experiences for registrars at your hospital	61%	29%	11%	**100%**	**28**
	A good measure of ED performance	66%	21%	14%	**100%**	**29**
	A good measure of hospital performance	28%	10%	62%	**100%**	**29**
	Helped improve quality of clinical care provided to ED patients	32%	39%	29%	**100%**	**28**
Regional/ Rural	Increased the efficiency of operations in your ED	35%	24%	41%	**100%**	**17**
	Improved bed management processes at your hospital	41%	18%	41%	**100%**	**17**
	Improved patient flow in your hospital	35%	29%	35%	**100%**	**17**
	Reduced access block at your hospital	76%	6%	18%	**100%**	**17**
	Reduced overcrowding at your hospital	76%	0%	24%	**100%**	**17**
	Improved training experiences for registrars at your hospital	65%	35%	0%	**100%**	**17**
	A good measure of ED performance	59%	24%	18%	**100%**	**17**
	A good measure of hospital performance	27%	20%	53%	**100%**	**15**
	Helped improve quality of clinical care provided to ED patients	65%	24%	12%	**100%**	**17**

n= The total number of DEMs who responded

The barriers identified by the DEMs to achieving time-based access targets at their facility are presented in Table 45. A large number of DEMs perceived a lack of engagement or slow review process by their in-patient team (46%), a lack of beds/ poor bed management (40%) and a lack of staff (33%) as being barriers to achieving time-based access targets at their facilities. See Table 45 for other barriers to achieving time-based targets identified by the DEMs.

Table 45. Specific barriers identified by DEM's with regards to achieving time-based targets at their facility

Theme	n	% of total responses
In-patient: Lack of engagement with/ slow review process	32	46%
Lack of beds/ poor bed management	28	40%
Lack of staff/ VMO model (on-call)	23	33%
Lack of Executive/ wider hospital support	16	23%
Lack of direct access pathway	15	21%
Lack of access to support services (after hours)	13	19%
No increase in resources	12	17%
Overcrowding/ access block	11	16%
Lack of non-ED staff engagement	5	7%
Private hospital- Not compulsory	5	7%
Decreasing budgets	4	6%
ED Design- No space	4	6%
Access block at receiving hospital	3	4%
Other	3	4%
Lack of staff support for NEAT	2	3%
Lack of senior decision makers	2	3%
Physicians/ surgeons	2	3%
Slow nurse handover	2	3%
State Government	2	3%
Time required for cultural/ process change	2	3%
Lack of data collection/ analysis	1	1%
Total no. of responses	**70**	
Total no. of comments	**187**	

n= The number of DEMs who provided a response

Examples of comments provided by DEMs in response to the question on barriers to achieving time-based access targets, are displayed below:

Executive support. Access to funding for additional staff, and ED redesign

'Buy in' from in-patient teams. Lack of additional resources. Current economic climate and reduction in health care funding in the state-budget.

Time, history and culture.
It takes time to break from historical methods of doing things (in the ED and the hospital as a whole) especially when we are tackling deeply ingrained cultures of practice within the hospital at large. Emergency medicine has a history of being flexible and rapidly adaptive to new requirements and creating novel solutions to problems; however specialty units and the hospital as a whole needs time. This is clearly seen in most facilities whereby discharge rate compliance with NEAT is the first to improve and admission rate complaince with NEAT lags behind.

The lack of in-patient team cultural acceptance and inflexibility to change and adopt over census, direct admission or other ideas like admission unit trials.

No engagement of executive staff or other specialities; Lack of appreciation by ED clinical staff that we should see it as an opportunity to improve patient care rather than a ?

Access block, timely access to pathology, timely access to CT, processes around imaging/pathology. Time to in-patient team RV/subspeciality access, Early disposition identification. Access to single rooms for infection control.

Bed block. 4 hour target is reached by ED for discharge but not by hospital for admissions. Ability to average these removes the incentive to provide in-patient beds. Lack of ownership of the target by the hospital at large.

Glacial change amongst the in-patient and diagnostic services together with significant resource deficiencies throughout the hospital due to massive budget cuts.

Executive buy in limited and poorly supported when resources are required (partic FTE). In patient units not well supported with after hours staffing/ rostering to achieve safe timely care on wards. Particular units are consistently overwhelmed (partic gen med/ AAU and to a degree gen surgery with too many admissions for number of beds- these issues have not ben dealt with. Other areas that are major blocks are= excess focus on elective v emerg surgery, ltd access to emergency OT, poor support for 24/7 services (partic radiology), not enough registrars/ snr decision makers in hospital at night, no HDU, poor processes for getting patients into nursing obs unit (NOSA), ltd buy in and poor behaviour from ward based nurses (up to highest level), poor support for HSA (orderly) staff, major problems with mental health overcrowding- exacerbated by poor funding for new beds/ fixation on community services, poor information promulgation and poor feedback processes so junior doctors. nurses. clinician buy in is very ltd. Poor bed management systems- isolated from ED and constantly difficult to contact. Exec don't deal with bad behaviours even when overt. Over blown rhetoric and claims for success not matched by perception (or indeed reality)

Reduced senior decision makers compared to need. Access to in-patient beds for MRO patients. Ongoing delays to radiology services. Patterns of presentations not met with adequate support services

Table 46 displays the specific facilitators/ enablers with regards to achieving time-based access targets as identified by the DEMs. Efficient patient flow processes (26%), senior staff as leaders (21%), global hospital support (19%), proactive/ supportive ED staff (19%) and specific staff for decision making (19%) were the main facilitators or enablers identified by DEMs to achieving time-based access targets (Table 48). See Table 46 for other facilitators/ enablers to achieving time-based targets identified by the DEMs.

Table 46. Specific facilitators/ enablers identified by DEM's with regards to achieving time-based targets at their facility

Theme	n	% of total responses
Efficient patient flow processes (SSU)/ fast track service	16	26%
Senior Staff as leaders	13	21%
Global Hospital support	12	19%
Proactive/ supportive ED staff	12	19%
Specific staff for decision making/Medical assess unit	12	19%
Easy access to follow-up services	10	16%
Adequate funding and resources	9	15%
Adequate staffing (24/7)	8	13%
Strong relationships with other departments	8	13%
Discharge plan early/ weekend	7	11%
Monitoring ED/ in-patient units- accountable	4	6%
Hospital ED redesign	3	5%
Other	3	5%
None	2	3%
NA	2	3%
Hospital in the Home program	1	2%
Improved ambulatory services	1	2%
Improved inter-hospital transfer processes	1	2%
No junior staff in ED	1	2%
Sub-acute/ aged care capacity	1	2%
Working committee driving change	1	2%
Total no. of responses	**62**	
Total no. of comments	**189**	

n= The number of DEMs who provided a response

Examples of comments provided by DEMs in response to the question on facilitators/ enablers in regards to achieving time-based access targets, are displayed below:

Hospital insistence on having zero 24-hour stays in ED. Improving access to Hospital in the Home, Inreach and other services. Improved facilitation of interhospital transfers.

High degree of monitoring of ED and inaptient units - now being held more accountable

Emergency Department workforce engaged and believe in targets - drivers of change.

ED Short Stay Unit is an important model of care. Must be under ED control and not used as an admission ward. Supportive Bed Management systems. Patient flow from acute to subacute areas to create acute bed availability

Strong hospital executive support & engagement. Engagement of key hospital committees (division of medicine, division of surgery, patient care committee). Good pre-existing relationships between key groups (ED, cardiology, geriatrics, bed management)

Initiatives such as See and Treat to improve dischargeable stream times to assist with maintaining the integrity of the discharge stream.

Having a functioning MAU where Dr's are taken out of the admission process. Patients Flow unit and data. Discharges by 11am from wards

flow management systems. the acknowledgement that the hospital would need to operate 7 days per week not just mon-fri

Hospital approach and working with specialities to understand the increased morbidity with staying in ED. Use of a SSU effectively for patients staying under 24hours but more than 6 hours

Collaborative discussions with specialty teams that have allowed a re-evaluation of what is appropriate and meaningful emergency care for their patients requiring admission. More specifically defining and standardising the 'end-product' of emergency care such that specialty teams consistently know what they are going to receive and ED staff consistently know what to work towards.

Management are actively trying to assist with access block and willing to listen to patient flow initiatives, DEM staff engaged to redesign process.

Rapid radiology/ path reporting. Consultant to consultant referal

Table 47 presents the important indicators that need to be measured to assess the safety and effectiveness of time-based access targets, identified by the DEMs. Representation rates (planned/ unplanned) (42%), MET call rates (31%), patient satisfaction levels and complaints (29%) and morbidity/ mortality rates (27%) were the main indicators identified by the DEMs as being important. Refer to Table 47 for other indicators identified.

Table 47. Important indicators identified by DEM's that need to be measured to assess the safety and effectiveness of time-based access targets

Theme	n	% of total responses
Representation rates- planned vs unplanned	25	42%
MET call rates	18	31%
Patient satisfaction/ complaints	17	29%
Morbidity/ Mortality rates	16	27%
Critical incident/ error reporting	10	17%
Total hospital length of stay	10	17%
Readmission rates within 24h	9	15%
Time to relevant treatment	8	14%
Time to see specialist	7	12%
DNWs	6	10%
Access block- onsite	5	8%
SSU/ ICU admission rates	5	8%
ED length of stay	4	7%
Time to admission	4	7%
Ambulance ramping	3	5%
Assessment of appropriate admission vs outpatient care	3	5%
Audit patient process measures	3	5%
Errors during ED overcrowding	3	5%
Pathology/ radiology turn- around time	3	5%
Staff satisfaction/ turnover	3	5%
Time to be triaged	3	5%
Discharge rate (within 4h)	2	3%
Other	2	3%
Staff to patient ratios	2	3%
Triage score accuracy	2	3%
Access block- receiving hospitals	1	2%
Bed occupancy rates	1	2%
Discharge safety program compliance	1	2%
Hospital infection rates (MRSA)	1	2%
Incidence of violence ED/ SSU	1	2%
NA	1	2%
Staff sick leave	1	2%
Staff training	1	2%
Time between seeing specialist and discharge from ED	1	2%
Total no. of responses	**59**	
Total no. of comments	**182**	

n= The number of DEMs who provided a response

Other themes identified by DEMs with respect to time-based access targets included that they were an opportunity for improvement/ target was needed (37%), that they require funding/ resources to be effective (29%) and that hospital wide support is required (16%) (Table 48). Refer to Table 48 below for all of the themes identified from the DEM comments on time-based access targets.

Table 48. Other themes identified by DEM's with respect to time-based access targets:

Theme	n	% of total responses
Opportunity for improvement/ target needed	14	37%
Requires funding/ resources to be effective	11	29%
Requires hospital wide support	6	16%
Fine balance between patient benefit vs misdiagnosis	5	13%
4 hour NEAT not safe/ only reflection on resources	4	11%
6 hour target more appropriate	3	8%
Other	3	8%
Requires strong leadership	3	8%
Generic target not relevant	2	5%
Requires 24/7 support- staff/ services	2	5%
Requires incentives	2	5%
Stress on ED staff	2	5%
No built in escalation process	1	3%
Total no. of responses	**38**	
Total no. of comments	**58**	

n= The number of DEMs who provided a response

Examples of comments provided by DEMs regarding time-based access targets:

The New Zealand 6-hour target is good in that it allows for safe management without significant delays. The Australian version is unsafe.

The generic target is not helpful and is actually potentially harmful for EDs. It does not reward thorough workup and appropriate referral for admission. ie it turns EDs into a triage service. What we should be measuring is unnecessary wait. It may be best for the patient to spend 6-8 hours in ED. It may be best if they wereout within 1 hr. It is not good to wait to be seen, to wait for investigations, to wait for hospital beds.

It was always delusional in NSW that this could be done without any extra resources in all hospitals - no attempt made to consider comparisons of staff ratios to patients across wide variety of hospitals versus complexity/acuity levels

Whole of system reform can happen in the right environment and I would welcome the improved patient journey this can bring

Hospitals need permenant structures in place to drive and support ongoing clinical and precess reform. A start stop project mentality will not lead to enduring results

Hospital needs to provide 24/7 support for a 24/7 Emergency Department. Hospital wide support adn understanding of targets. Targets need to be realistic in the context of increasing unmet demand and decreasing resources. There needs to be a community response to the increasing demand ie GP's

Have been good for our department in bringing resource and attention to the floor, and bringing something to the table for ED when corporate needs are balanced.

We have found that the staff feel that they have more control/authroity of their environment and feel more in charge of process.

WE ARE CURRENTLY SO FAR OFF TARGET THAT THERE IS ACTUALLY NO REAL INCENTIVE FOR HOSPITAL MANAGEMENT TO DRIVE ANYTHING OTHER THAN TOKENISTICALLY

It is quite easy to be synical about this whole process. But there probably is some opportunity for improvements- and we can take advantage of this opportunity to fix individual problems at specific hospitals. It is good to shine the spotlight on ED flow (but must be careful not to cause harm in the process)

Time base targets have driven important changes within ED and the hospital with respect to what is appropriate and meaningful assessment and management interventions in the ED (i.e. triggered a re-evaluation of what is emergency medicine care). However, whilst an overall target of 75% seems to be a reasonable balance between flow / process and maintaining professional job satisfaction with respect to being able to practice emergency medicine; I suspect moving to 90% may risk compromising us a profession with respect to our clinical practice.

Time based targets do not reflect quality of care but resource availability eg triage category x waiting times. Indicators such as ED LOS is related to in-patient morbidity and mortality, but most EDs discharge >80% of patients within 4 hours so this is not an applicable measure of quality. The overcrowding of EDs is almost exclusively an issue with access to in-patient beds. Therefore indicators should apply to quality management and outcomes for individual in-patient units and the hospital as a whole.

I believe they are for patient benefit but only if it is not at the cost of patient misdiagnosis

Whilst the ED staff support these targets as a whole, we are incredibly frustrated by the belief of the Senior management that the focus of change is essentially on the ED - not whole of hospital.

they are a useful measure of staff/resource allocations on a shift by shift basis.

3.8. Emergency Department Staffing

Data provided on emergency department staffing levels is presented in this section, including the average FTE and average unfilled FTE at a regional level and by hospital role delineation. The average FTE of FACEMs to nursing staff and FACEMs to ED Registrar (ACEM trainees) is also presented at a regional and hospital role delineation level.

Table 49 displays the average FTE of ED staff by region, a) NSW, NT, QLD and SA and b) TAS, VIC, WA, NZ. From the Australian states and territories, Victoria and WA had the highest average FACEM FTE at 11.3 and 10.1 respectively and also the highest average ED Registrar FTE at 10.9 and 9.3 respectively. Refer to Table 49 and Figure 19 for more ED staffing data.

Table 49. Average FTE ED staff numbers, by region, a) NSW, NT, QLD and SA and b) TAS, VIC, WA, NZ

a)

ED Staff	NSW Average Total FTE	n	NT Average Total FTE	n	QLD Average Total FTE	n	SA Average Total FTE	n
FACEM	6.5	20	7.8	0	9.6	17	9.1	4
ED Registrar (ACEM Trainees)	7.3	15	8.5	2	8.2	11	14.2	4
Registrar (non-ACEM Trainees)	3.6	12	5.0	1	2.4	10	1.7	3
Junior Drs/ Residents/ CMOs/non-accredited registrars)	16.6	16	15.0	1	15.0	15	15.9	4
Interns (PGY1)	4.9	20	4.0	2	6.2	17	5.3	4
Nurse Practitioner	1.0	14	0.0	1	1.7	10	4.1	4
Other nursing	58.3	19	69.7	2	65.1	15	113.5	3
Ancillary staff	3.5	15	11.5	2	6.2	12	2.4	2
Administrative staff	10.8	20	8.4	2	12.2	14	8.4	3

n= The total number of responses provided

b)

ED Staff	TAS Average Total FTE	n	VIC Average Total FTE	n	WA Average Total FTE	n	NZ Average Total FTE	n
FACEM	5.5	3	11.3	21	10.1	5	11.9	8
ED Registrar (ACEM Trainees)	7.5	3	10.9	19	9.3	5	9.8	6
Registrar (non-ACEM Trainees)	1.0	2	3.4	16	2.1	5	2.0	5
Junior Drs/ Residents/ CMOs/non-accredited registrars)	9.8	2	12.5	20	14.4	5	7.8	6
Interns (PGY1)	5.5	2	4.6	21	3.4	5	0.0	6
Nurse Practitioner	1.0	3	0.9	15	1.9	5	2.0	5
Other nursing	55.5	3	64.5	18	69.3	5	48.7	6
Ancillary staff	12.6	3	8.6	17	4.8	5	4.2	5
Administrative staff	11.2	3	11.1	19	9.0	5	16.8	6

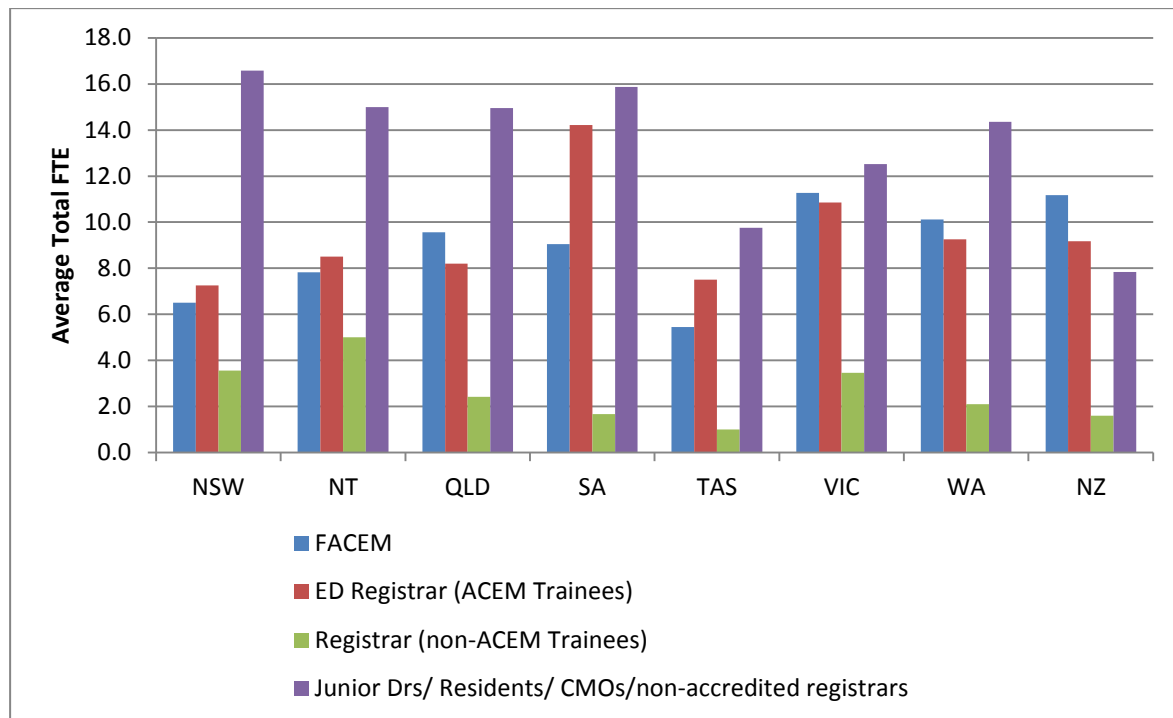*n= The total number of responses provided*

Figure 19. Average FTE ED staff numbers for FACEMs, ED Registrars (ACEM and non-ACEM trainees) and Junior Doctors/Residents/CMOs, by region

Table 50 displays the average unfilled FTE for ED staff by region, a) NSW, NT, QLD and SA and b) TAS, VIC, WA and NZ, although response rates were low for these questions. From the data provided SA had the highest average unfilled FTE for FACEMs and ED Registrar (ACEM trainees) compared to the other states, territories and New Zealand. The Northern Territory and New Zealand had the highest average unfilled FTE for nursing staff of 8.8 and 7.0 respectively. See Table 50 for more ED staffing data.

Table 50. Average unfilled FTE staff numbers, by region, a) NSW, NT, QLD, and SA and b) TAS, VIC, WA and NZ

a)

ED Staff	NSW		NT		QLD		SA	
	Average Unfilled FTE	n	Average Unfilled FTE	n	Average Unfilled FTE	n	Average Unfilled FTE	n
FACEM	1.0	18	1.6	2	0.5	3	3.1	2
ED Registrar (ACEM Trainees)	1.7	6	ND	0	1.5	4	2.0	2
Registrar (non-ACEM Trainees)	0.3	4	ND	0	0.0	4	0.0	2
Junior Drs/ Residents/ CMOs/non-accredited registrars)	3.4	5	ND	0	0.3	4	0.0	2
Interns (PGY1)	0.0	3	ND	0	0.6	5	0.0	2
Nurse Practitioner	0.0	4	ND	0	0.1	4	0.0	2
Other nursing	4.7	18	8.8	2	1.3	9	4.0	2
Ancillary staff	ND	0	ND	0	0.0	2	0.0	1
Administrative staff	1.3	5	ND	0	0.0	4	0.5	2

n= The total number of responses provided

b)

ED Staff	TAS Average Unfilled FTE	n	VIC Average Unfilled FTE	n	WA Average Unfilled FTE	n	NZ Average Unfilled FTE	n
FACEM	2.1	3	0.6	16	1.8	5	1.2	7
ED Registrar (ACEM Trainees)	0.2	3	0.0	8	0.8	4	0.0	5
Registrar (non-ACEM Trainees)	0.0	2	0.0	7	0.0	5	0.0	4
Junior Drs/ Residents/ CMOs/non-accredited registrars)	0.0	2	0.0	7	1.4	5	0.0	5
Interns (PGY1)	0.0	2	0.0	10	0.0	5	0.0	4
Nurse Practitioner	0.0	3	0.0	11	0.0	5	0.0	4
Other nursing	0.0	3	2.7	14	5.2	5	7.0	6
Ancillary staff	0.0	3	0.0	5	0.3	5	0.0	3
Administrative staff	0.0	3	0.1	6	0.3	4	0.5	3

n= The total number of responses provided

Table 51 displays the average FACEM, nursing and ED registrar FTE as well as the ratio of the average FACEM FTE compared to nursing FTE and FACEM FTE compared to ED registrar FTE, by region for those that responded. From the data provided, SA and Tasmania had a smaller average FACEM FTE compared to nursing FTE, compared with the other states, territories and New Zealand. Victoria and New Zealand had the highest portion of FACEM FTE to nursing FTE (Table 51, Figure 20).

South Australia and Tasmania had higher ED registrar FTE compared to FACEM FTE, with Queensland, Victoria, WA and New Zealand having a greater portion of total FACEM FTE compared to ED registrar FTE (Table 51, Figure 21).

Table 51. Average FACEM, Nursing and ED registrar FTE and ratio of FACEM FTE to nursing and ED registrar FTE, by region

ED Staff	NSW	NT	QLD	SA	TAS	VIC	WA	NZ
FACEM FTE	6.5	7.8	9.6	9.1	5.5	11.3	10.1	11.2
Nursing FTE	58.3	69.7	65.1	113.5	55.5	64.5	69.3	48.7
ED Registrar FTE (ACEM Trainees)	7.3	8.5	8.2	14.2	7.5	10.9	9.3	9.2
Ratio FACEM FTE: Nursing FTE	**1: 9.0**	**1: 7.3**	**1: 6.8**	**1: 12.5**	**1: 10.1**	**1: 5.7**	**1:6.9**	**1: 4.3**
Ratio FACEM FTE: ED Registrar FTE (ACEM Trainees)	**1: 1.1**	**1: 1.1**	**1: 0.85**	**1: 1.6**	**1: 1.4**	**1: 0.96**	**1: 0.92**	**1: 0.82**
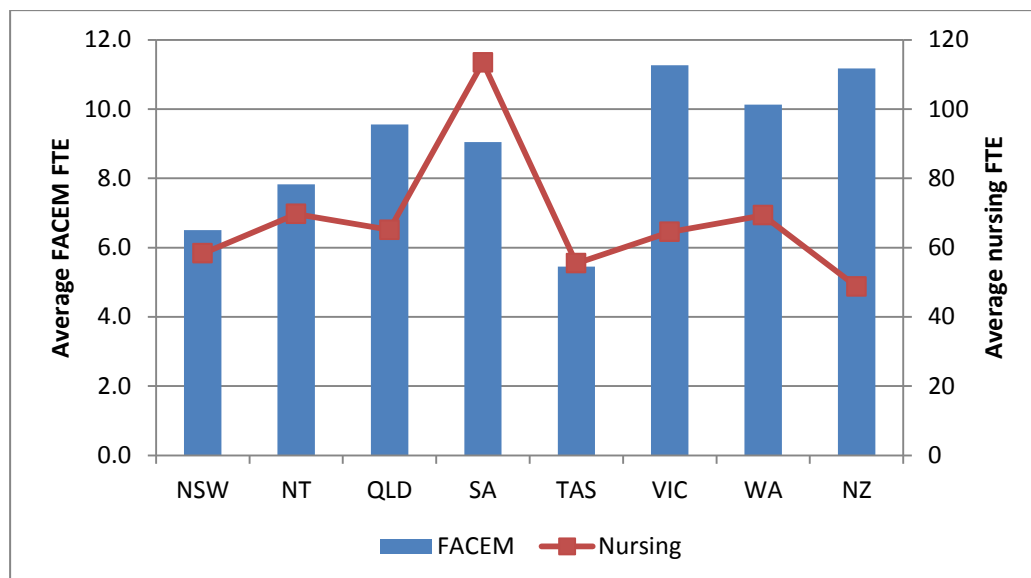
Figure 20. Average total FTE for FACEMs compared to nursing staff, by region
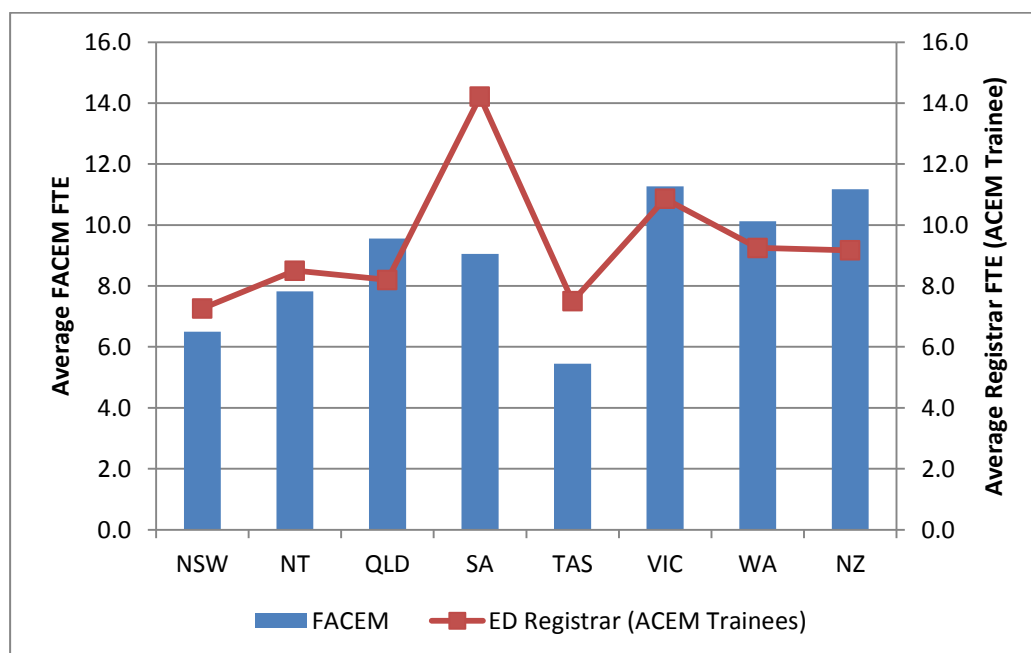
Figure 21. Average total FTE for FACEMs compared to Registrars (ACEM Trainees), by region

Table 52 and Figure 22 present the average FTE for ED staff by hospital role delineation. Major-metropolitan hospitals had a higher average FACEM, ED registrar, intern, nurse practitioner, ancillary and administrative FTE compared to urban-metropolitan or regional/rural hospitals. Interestingly regional/rural hospitals had the same average FTE for nursing staff at 79.5 FTE as major-metropolitan hospitals. Refer to Table 52 and Figure 22 for further data analysis.

Table 52. Average FTE staff numbers, by hospital role delineation

ED Staff	Metropolitan-Major		Metropolitan-Urban		Regional/Rural	
	Average FTE	n	Average FTE	n	Average FTE	n
FACEM	12.9	30	7.8	37	6.2	17
ED Registrar (ACEM Trainees)	14.8	20	7.1	40	5.8	16
Registrar (non-ACEM Trainees)	3.9	19	2.7	22	1.6	12
Junior Drs/ Residents/ CMOs/non-accredited registrars)	14.2	25	14.3	29	12.8	15
Interns (PGY1)	6.5	25	3.7	36	3.9	16
Nurse Practitioner	2.1	19	1.2	25	0.8	12
Other nursing	79.5	26	57.2	30	79.5	15
Ancillary staff	8.4	22	5.5	26	4.3	12
Administrative staff	17.0	24	9.2	33	6.4	14

n= The total number of responses
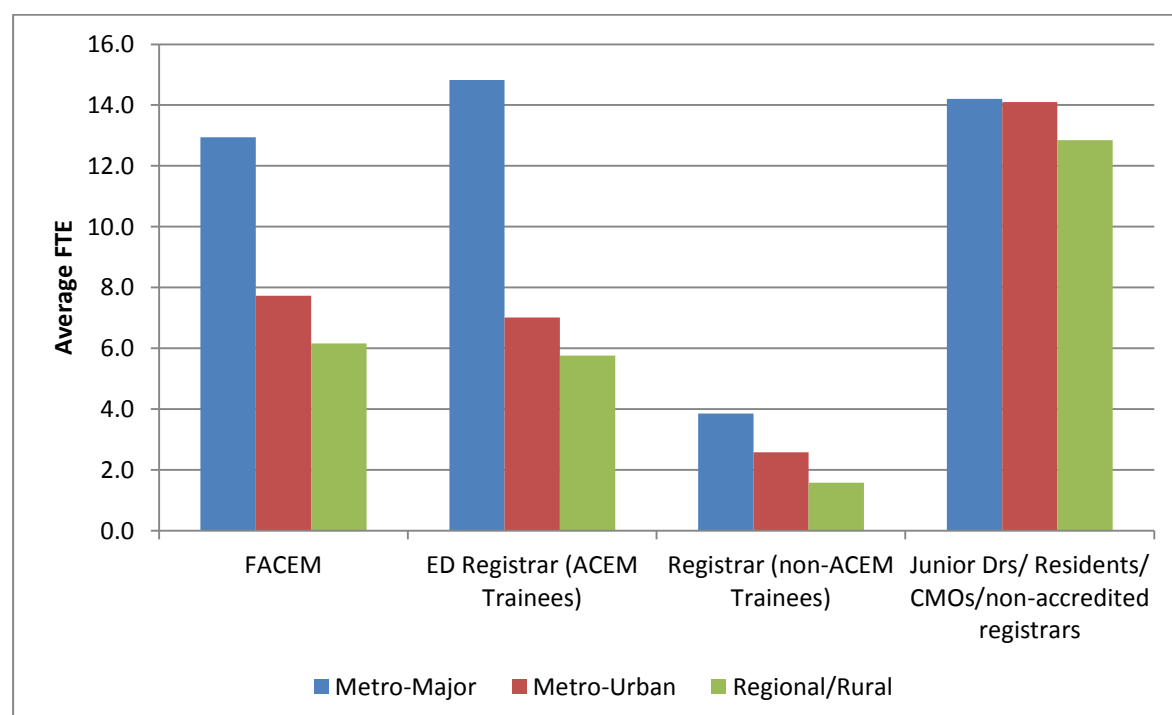
Figure 22. Average FTE staff numbers for FACEMs, ED Registrars (ACEM and non-ACEM trainees) and Junior Doctors/Residents/CMOs etc, by hospital role delineation

Table 53 displays the average FTE for FACEMs, nursing staff and ED registrar and provides the ratios of average total FACEM FTE compared to the total FTE for nursing staff and ED registrars, by hospital role delineation. Major-metropolitan hospitals had a greater average ratio of FACEM FTE to nursing FTE, with 1 FACEM FTE for every 6.2 nursing FTE compared to urban-metropolitan and regional/rural hospitals (Table 53 and Figure 23).

Interestingly, major-metropolitan hospitals had a smaller average total FACEM FTE to ED registrar FTE, with 1 FACEM FTE for every 1.5 ED Registrar compared to urban-metropolitan and regional/rural hospitals (Table 53, Figure 24).

Table 53. Average FACEM, Nursing and ED registrar FTE and ratio of FACEM FTE to nursing and ED registrar FTE, by region

ED Staff	Metro-Major	Metro-Urban	Regional/Rural
FACEM	12.9	7.7	6.2
Nursing	79.5	57.2	79.5
ED Registrar (ACEM Trainees)	14.8	7.1	5.8
Ratio FACEM: Nursing	**1: 6.2**	**1: 7.4**	**1: 12.9**
Ratio FACEM: ED Registrar (ACEM trainees)	**1: 1.5**	**1: 0.92**	**1: 0.94**
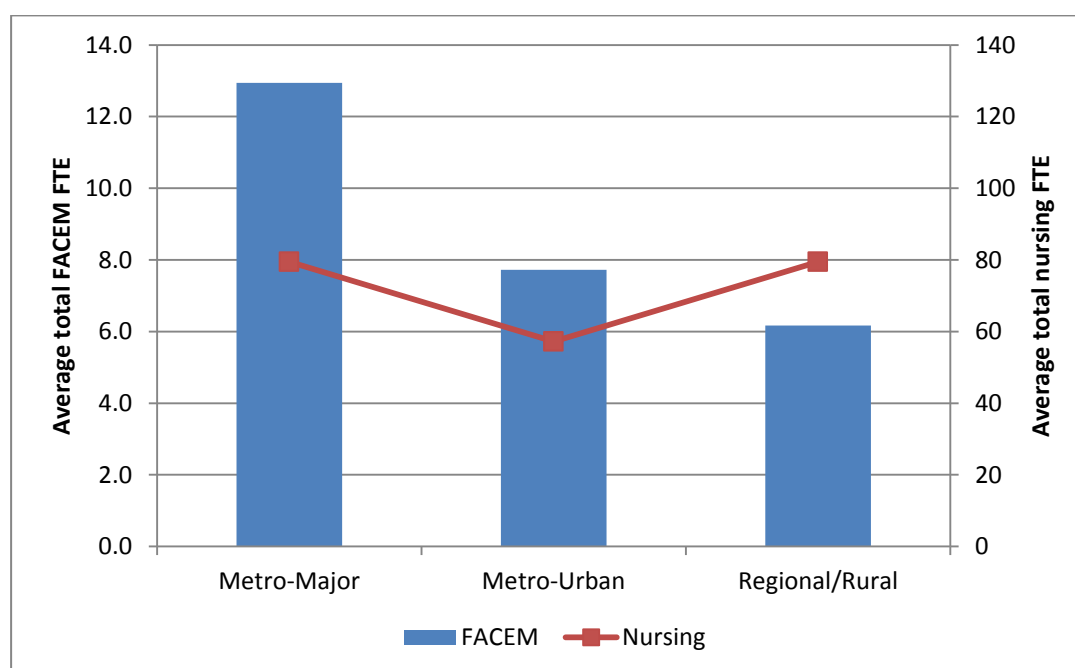
Figure 23. Average FTE for FACEMs compared to nursing staff, by hospital role delineation
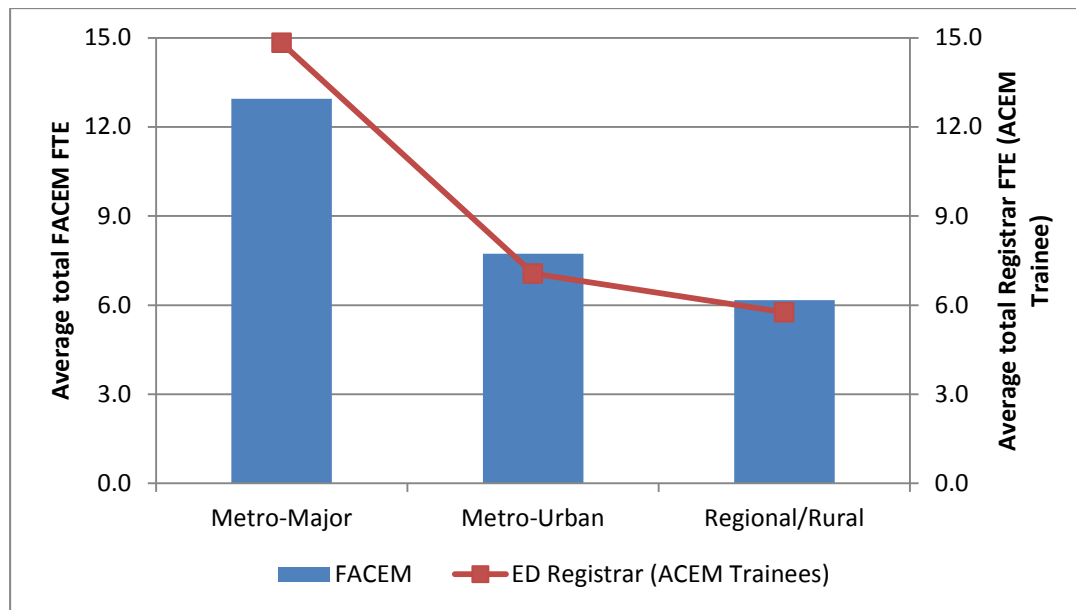
Figure 24. Average FTE for FACEMs compared to ED Registrar (ACEM Trainees), by hospital role delineation

Table 54 displays the ratio of combined total ED staff FTE for FACEMs, ED Registrars (ACEM trainees), and nursing staff as a portion of the total patient attendance for 2011-2012 by region. Patient attendance data was only used for the hospitals that provided staffing data. For the data provided, SA and NSW hospitals had the least total FACEM FTE per patient attendance, while Victoria and New Zealand had the greatest total FACEM FTE per patient attendance (Figure 25). New South Wales and Queensland had the smallest total ED registrar FTE compared to patient attendances, with New Zealand having the greatest total ED registrar FTE per patient attendance (Figure 25). With respect to the ratio of nursing FTE to patient attendance, New Zealand had the highest total nursing FTE, with both NSW and WA having the lowest total nursing FTE (Figure 26).

Table 54. Combined total staff FTE ratio per patient attendance and total patient attendance for 2011-2012, by region

Region	FACEM		ED Registrar (ACEM Trainees)		Nursing		Patient attendance
	Total FTE	Ratio per patient attend.	Total FTE	Ratio per patient attend.	Total FTE	Ratio per patient attend.	
NSW	129.5	1:8759	108.9	1:10416	1121.7	1:1011	1134318
NT	15.7	1:6691	17.0	1:6179	139.4	1:754	105043
QLD	162.5	1:5887	90.2	1:10605	993.9	1:962	956572
SA	36.2	1:9010	56.9	1:5732	356.6	1:915	326160
TAS	16.4	1:7030	22.5	1:5123	168.4	1:685	115286
VIC	236.6	1:4443	196.3	1:5356	1175.1	1:895	1051381
WA	60.8	1:7001	46.3	1:9193	356.0	1:1196	425652
NZ	89.4	1:2334	55.0	1:3794	304.5	1:685	208662

Figure 25 displays the total FTE for FACEMs and ED registrars compared to total patient attendance by region and Figure 26 displays the total nursing FTE compared to total patient attendance, by region.
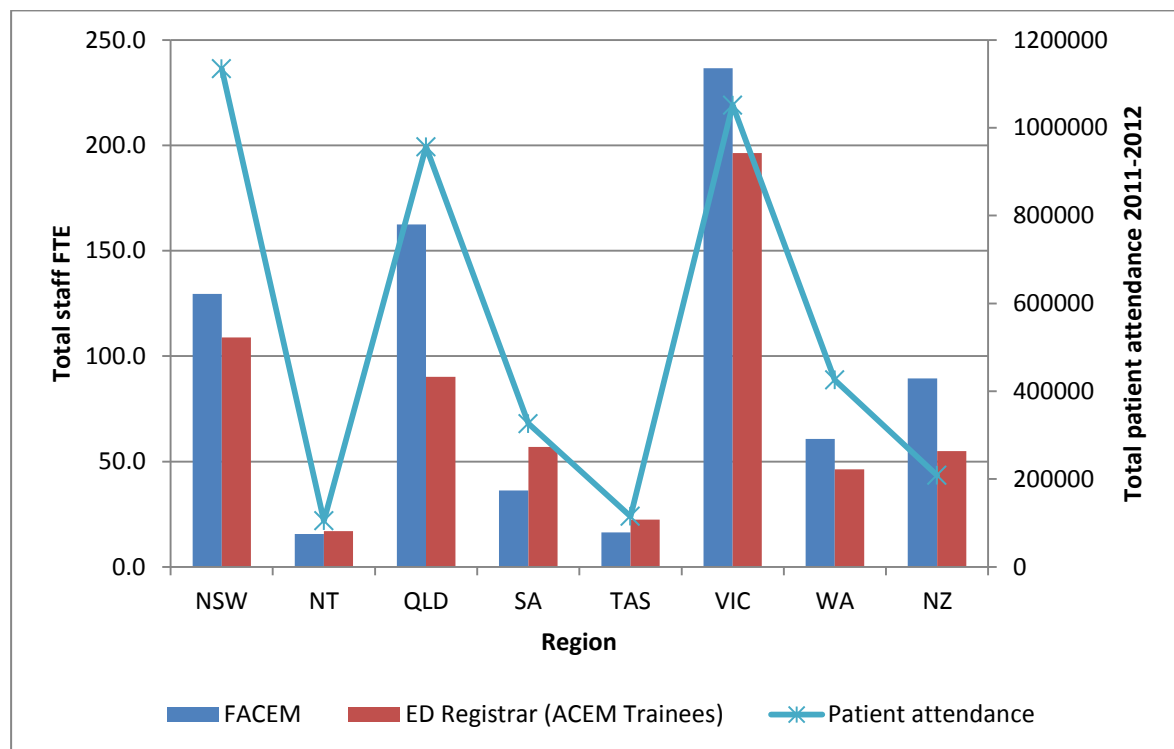
Figure 25. Total staff FTE and total patient attendance for 2011-2012, by region
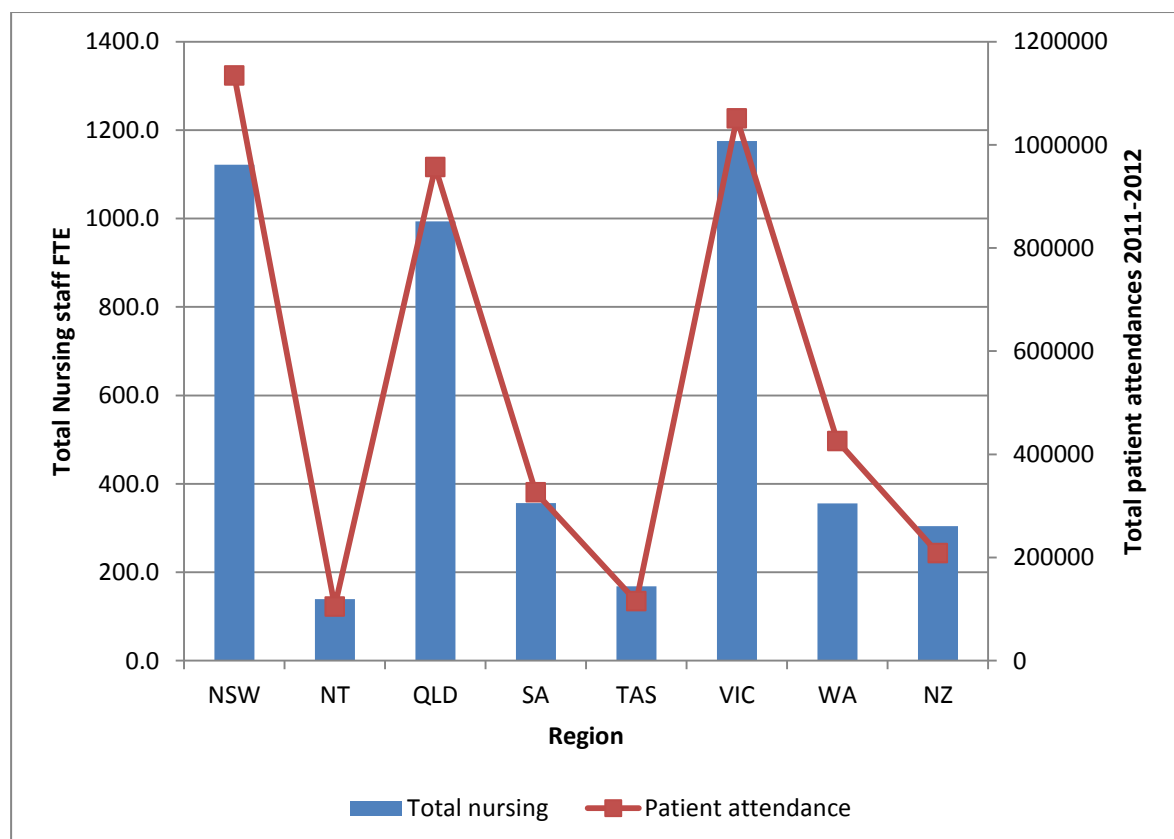
Figure 26. Combined total nursing staff FTE and total patient attendance for 2011-2012, by region

3.9. Emergency Department Roster Data

This section presents the average roster data (FTE), on-floor and on-call for both weekday and weekends for FACEMs, Registrars, PGY2 and above, Interns, Nurse Unit Managers, Shift Coordinators/Charge Nurses, Registered Nurses, Enrolled Nurses (or equivalent) and Nurse Practitioners.

Across each of the hospital role delineations, on-floor FACEM FTE was greatest during the day shift and during weekdays (Table 55). There was also minimal FACEM FTE (0.0 to 0.1) on-floor during the night shift across all hospital role delineations. Urban-metropolitan hospitals had a greater on-call FACEM FTE during the night shift compared to the other hospital role delineations. See Table 55 for full FACEM (FTE) roster.

Table 55. Average weekday and weekend roster for FACEMs (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 81-82 hospitals)

		FACEMs FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	2.6	0.1	1.9	0.2	0.1	0.8	29
	Weekend roster	1.6	0.2	1.7	0.2	0.1	0.8	29
Metropolitan-Urban	Weekday roster	1.8	0.1	1.3	0.4	0.0	1.0	35
	Weekend roster	1.1	0.1	1.0	0.4	0.0	0.9	34
Regional/ Rural	Weekday roster	1.4	0.1	1.1	0.1	0.0	0.8	18
	Weekend roster	1.1	0.2	1.0	0.3	0.1	0.8	18

n= The number of hospitals with data

Average weekday and weekend FTE roster for Registrars is provided in Table 56. There was a greater number of Registrars (FTE) rostered on-floor during the evening shift compared, to the other on-floor shifts, across all of the hospital role delineations. There was also minimal Registrars rostered on-call for each of the hospital role delineations.

Table 56. Average weekday and weekend roster for Registrars (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 81-83 hospitals)

		Registrars FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	2.8	0.1	3.0	0.1	1.9	0.1	30
	Weekend roster	2.6	0.0	2.7	0.0	1.9	0.2	29
Metropolitan-Urban	Weekday roster	1.9	0.0	2.1	0.0	1.3	0.0	35
	Weekend roster	1.9	0.1	2.0	0.1	1.3	0.1	34
Regional/ Rural	Weekday roster	1.5	0.0	2.0	0.0	1.1	0.0	17-18
	Weekend roster	1.6	0.0	2.0	0.0	1.1	0.0	18

n= The number of hospitals with data

Table 57 displays the average weekday and weekend roster for PGY2 and above staff, by hospital role delineation. More PGY2 and above staff were rostered on during the on-floor day and on-floor evening shifts for each of the hospital role delineations, with less rostered on during the night on-floor shift.

Table 57. Average weekday and weekend roster for PGY2 and above (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from up to 59-61 hospitals)

		PGY2 and above FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	2.8	0.1	2.9	0.1	2.1	0.1	21
	Weekend roster	2.4	0.0	2.7	0.1	1.6	0.1	22
Metropolitan-Urban	Weekday roster	2.5	0.1	2.6	0.1	1.6	0.1	24
	Weekend roster	2.5	0.2	2.4	0.1	1.6	0.1	24
Regional/ Rural	Weekday roster	2.3	0.0	2.4	0.0	1.6	0.0	14
	Weekend roster	2.2	0.0	2.3	0.0	1.5	0.0	15

n= The number of hospitals with data

Table 588 consists of the average weekday and weekend rosters for Interns (PGY1). The majority of Interns (FTE) were rostered on-floor during the day and evening shifts, with a drop in FTE of between 0.36 to 0.61 for the on-floor night shift. No Interns (PGY1) were rostered on-call for any of the shifts for any of the hospital role delineations, except for an average of 0.2 FTE during the evening shift, for the major-metropolitan hospitals.

Table 58. Average weekday and weekend roster for Interns (PGY1) (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from up to 75-78 hospitals)

		Interns (PGY1) FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	1.5	0.0	1.5	0.2	0.9	0.0	26-27
	Weekend roster	1.3	0.0	1.3	0.0	0.8	0.0	28
Metropolitan-Urban	Weekday roster	1.2	0.0	1.0	0.0	0.5	0.0	32
	Weekend roster	0.9	0.0	0.9	0.0	0.4	0.0	32
Regional/ Rural	Weekday roster	1.4	0.0	1.2	0.0	0.5	0.0	16
	Weekend roster	1.2	0.0	1.1	0.0	0.6	0.0	18

n= The number of hospitals with data

Table 59 presents the average weekday and weekend roster for Nurse Unit Managers (or equivalent), by hospital role delineation. Nurse Unit Managers were predominantly rostered on during the weekday on-floor day shift at between 1.0 and 1.1 FTE for each of the hospital role delineations.

Table 59. Average weekday and weekend roster for Nurse Unit Managers (or equivalent) (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 70-79 hospitals)

		Nurse Unit Managers (or equivalent) FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	1.0	0.1	0.1	0.1	0.1	0.1	27
	Weekend roster	0.1	0.1	0.1	0.1	0.1	0.1	27
Metropolitan-Urban	Weekday roster	1.1	0.0	0.3	0.0	0.1	0.1	30-34
	Weekend roster	0.2	0.0	0.2	0.0	0.1	0.0	30
Regional/ Rural	Weekday roster	1.1	0.1	0.0	0.0	0.1	0.1	13-18
	Weekend roster	0.3	0.0	0.0	0.0	0.1	0.1	18

n= The number of hospitals with data

Table 60 provides the average weekday and weekend roster of Shift Coordinators/ Charge Nurses (FTE), by hospital role delineation. Between 0.9 and 1.1 Shift Coordinator/ Charge Nurse FTE were rostered on during each of the on-floor shifts, for each of the hospital role delineations.

Table 60. Average weekday and weekend roster for Shift Coordinator/ Charge Nurses (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 73-77 hospitals)

		Shift Coordinator/ Charge Nurses FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	1.1	0.0	1.1	0.0	1.0	0.0	26
	Weekend roster	1.1	0.0	1.1	0.0	0.9	0.0	27
Metropolitan-Urban	Weekday roster	1.0	0.0	1.0	0.0	1.0	0.0	30-31
	Weekend roster	1.0	0.0	0.9	0.0	0.9	0.0	32
Regional/ Rural	Weekday roster	0.9	0.1	0.9	0.0	0.9	0.0	17
	Weekend roster	0.9	0.2	0.9	0.3	0.9	0.2	18

n= The number of hospitals with data

The weekday and weekend roster of Registered Nurses for each of the hospital role delineations is presented in Table 61. In general there was a slightly greater FTE of Registered Nurses rostered on-floor during the evening shift compared to the day shift, and a smaller FTE rostered on during the night shift for each of the hospital role delineations.

Table 61. Average weekday and weekend roster for Registered Nurses (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 73-78 hospitals)

		Registered Nurses FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	13.2	0.0	14.9	0.0	11.2	0.0	27
	Weekend roster	13.2	0.0	14.7	0.0	11.2	0.3	27
Metropolitan-Urban	Weekday roster	11.5	0.0	12.5	0.0	7.5	0.0	30-33
	Weekend roster	11.3	0.0	12.5	0.0	7.6	0.0	33
Regional/ Rural	Weekday roster	8.4	0.0	8.8	0.0	6.5	0.1	16-17
	Weekend roster	8.1	0.0	7.8	0.0	6.2	0.0	18

n= The number of hospitals with data

Table 62 displays provides the average weekday and weekend roster for Enrolled Nurses (or equivalent), by hospital role delineation. For each of the hospital role delineations there were a similar Enrolled Nurse FTE rostered on for both day and evening on-floor shifts, at 1.3-1.6 FTE for major-metropolitan, 1.1-1.4 for urban-metropolitan and 0.6-0.7 for regional/rural hospitals. A slightly smaller number were rostered on during the night shift. No Enrolled Nurses were rostered on-call (Table 62).

Table 62. Average weekday and weekend roster for Enrolled Nurses (or equivalent) (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 67-70 hospitals)

		Enrolled Nurses (or equivalent) FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	1.6	0.0	1.5	0.0	0.9	0.0	23
	Weekend roster	1.4	0.0	1.3	0.0	1.3	0.0	24
Metropolitan-Urban	Weekday roster	1.4	0.0	1.2	0.0	0.7	0.0	28-29
	Weekend roster	1.4	0.0	1.1	0.0	0.6	0.0	28-30
Regional/ Rural	Weekday roster	0.7	0.0	0.7	0.0	0.5	0.0	15
	Weekend roster	0.7	0.0	0.6	0.0	0.6	0.0	16

n= The number of hospitals with data

The average weekend and weekday roster of Nurse Practitioners (FTE) is presented in Table 63. The average Nurse Practitioner FTE was similar between each of the hospital role delineations, ranging between 0.4-0.5 FTE during the on-floor day shift, 0.3-0.4 FTE during the on-floor evening shift and 0.0-0.1 FTE during the on-floor night shift. No Nurse Practitioners were rostered on call.

Table 63. Average weekday and weekend roster for Nurse Practitioners (FTE) working in major-metropolitan, urban-metropolitan or regional/rural hospitals (data from 57-60 hospitals)

		Nurse Practitioners FTE						
		Day on-floor	Day on-call	Evening on-floor	Evening On-call	Night on-floor	Night on-call	n
Metropolitan-Major	Weekday roster	0.5	0.0	0.4	0.0	0.0	0.0	22
	Weekend roster	0.4	0.0	0.4	0.0	0.0	0.0	22
Metropolitan-Urban	Weekday roster	0.4	0.0	0.3	0.0	0.0	0.0	21-22
	Weekend roster	0.4	0.0	0.3	0.0	0.0	0.0	23
Regional/Rural	Weekday roster	0.5	0.0	0.3	0.0	0.0	0.0	14
	Weekend roster	0.4	0.0	0.3	0.0	0.1	0.0	15

n= The number of hospitals with data

4. Conclusions

This report provides a detailed analysis of the results obtained from the Hospital Data and Accreditation survey- Part 1, which obtained responses from DEMs for the period July 1st, 2011 to June 30th, 2012. This was a pilot study aimed at collecting information on a wide range of issues related to EDs. This information will assist in informing College policy and advocacy activities, particularly with respect to workforce and training. Survey responses and the identified limitations of this pilot study will also help to inform improvements to the survey design, which will be used as a tool for collecting data annually.

5. Appendix 1: Hospital Data and Accreditation Survey- Part 1

You are invited to respond to this survey in your role as a DEM. All ACEM accredited EDs in Australia and New Zealand are being asked to complete this survey, which is a census of the current status of EDs. The survey questions will enable important information to be collated in the areas of education and training, workforce and trainee supervision, and hospital services, to inform:• Improvements to College accreditation processes• Planning and education development activities associated with the implementation of the Curriculum Revision Project (CRP)• College policy and advocacy activities relating to ED workforce and training issues

All accredited EDs are strongly encouraged to complete the survey to ensure that meaningful data interpretation is possible. Please note that your DEMT is being asked to complete a parallel survey related specifically to educational quality, capacity and planning. Your questions are tailored to workforce matters. The name of the FACEM completing the survey is requested to assist the survey administrator with any follow up or clarification questions. However, survey responses will be strictly confidential and data from this research will be reported only in the aggregate. All participating EDs will receive a report of the survey analysis and findings. If you have questions about this survey or the procedures, you may contact Dr Andrew Gosbell, ACEM Director of Policy & Research at (03) 9320 0444 or by email at: accreditation@acem.org.au

Instructions: Responses to this survey can be saved during the survey and you can come back and continue later. Data is saved up to the page on which you click on the Save and Continue Later button. You will then be provided with a continuation link via your email address - this will return you to the survey at the next page just after the page on which you clicked on the Save and Continue Later button.

Thank you very much for your time and support. Please start the survey now by clicking on the Continue button below.

Demographic Information

Name of FACEM completing this survey:

Please select your hospital from the list:

Hospital Performance

For the 12 month period, 1 July 2011 to 30 June 2012, please indicate:
Total number of in-patient beds available for overnight stays for acute admissions:

Percentage average annual bed occupancy rate (for in-patient beds) across the hospital (measured at 8.00am):

Emergency Department (and related Hospital) Resources

Number of beds/chairs (as at 30 June 2012):

	beds	chairs
Resuscitation:	❏	❏
Adult Emergency / Acute:	❏	❏
Paediatric Emergency / Acute:	❏	❏
Low-acuity / Sub-acute / Fastrack area:	❏	❏
Emergency mental health assessment:	❏	❏
Short Stay Unit:	❏	❏

Percentage average annual bed/chair occupancy rate for Short Stay Unit:

Regarding ED and related Hospital services:

	Yes	No	N/A
Are you designated as a Major Trauma Service?	❏	❏	❏
Do you have a Cardiac Catheter Laboratory onsite?	❏	❏	❏
If you have an onsite Cardiac Catheter Laboratory does it offer urgent PCI for STEMI?	❏	❏	❏
If you have an onsite Cardiac Catheter Laboratory offering urgent PCI for STEMI, is this service available 24/7?	❏	❏	❏
Does your ED facilitate thrombolysis for acute stroke?	❏	❏	❏

Emergency Department Attendances and Admissions

For the period 1 July 2011 - 30 June 2012, please provide total number of:

	Total	Adult	Paediatric (≤ 15 years)
Patient attendances	❏	❏	❏
In-patient admissions from ED	❏	❏	❏
Inter-hospital transfers from ED	❏	❏	❏
ICU admissions from ED	❏	❏	❏
CCU admissions from ED	❏	❏	❏
Trauma patients with ISS>15	❏	❏	❏
Transfers to other hospitals' ICU	❏	❏	❏
Transfers to other hospitals' CCU	❏	❏	❏

As a comparison for the previous period 1 July 2010 - 30 June 2011, please provide total number of:

	Total	Adult	Paediatric (≤ 15 years)
Patient attendances	❏	❏	❏
In-patient admissions from ED	❏	❏	❏

For the period 1 July 2011 - 30 June 2012, please provide total number of attendances and admissions per ATS Categories:

	Total Attendances (include DNW)	Attendances by ambulance	Admissions	Inter-hospital transfers (out-going)
ATS 1	❏	❏	❏	❏
ATS 2	❏	❏	❏	❏
ATS 3	❏	❏	❏	❏
ATS 4	❏	❏	❏	❏
ATS 5	❏	❏	❏	❏

Low-acuity (GP-type) presentations in the Emergency Department

For the period 1 July 2011 - 30 June 2012, please provide number of ATS 4 and ATS 5 patients who were discharged from the ED within one hour of being seen by a doctor:

[ ]

Your perceptions on the effects of GP-type (low-acuity) patients in your ED:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
GP-type patients contribute substantially to the workload in my ED	❏	❏	❏	❏	❏
GP-type patients are a significant contributing factor to ED overcrowding	❏	❏	❏	❏	❏
GP-type patients are a significant resource burden in my ED	❏	❏	❏	❏	❏
Diversion initiatives for low-acuity patients (e.g. GP telephone helpline, after-hours GP clinics, etc) have reduced patient workload in my ED	❏	❏	❏	❏	❏

Emergency Department Performance

For the period 1 July 2011 - 30 June 2012, please provide numbers and waiting time data per ATS Category:

	Number seen within maximum waiting time	Mean waiting time (min)	Median waiting time (min)	Number DNW
ATS 1 Immediate (<= 2 minutes)	❏	❏	❏	❏
ATS 2 10 Minutes	❏	❏	❏	❏
ATS 3 30 Minutes	❏	❏	❏	❏
ATS 4 60 Minutes	❏	❏	❏	❏
ATS 5 120 Minutes	❏	❏	❏	❏

For the period 1 July 2011 - 30 June 2012, please provide:

Total number of patients discharged within access target (Aus = 4 hours/NZ = 6 hours):

[ ]

Total number of patients admitted or transferred within access target (Aus = 4 hours/NZ = 6 hours):

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Total number of ED attendances which were seen and admitted/discharged/transferred within access target (Aus = 4 hours/NZ = 6 hours):

<div style="border:1px solid #000; width:200px; height:70px; background:#e0e0e0;"></div>

Access block: number of all ED admissions who were admitted or transferred > 8 hours:

<div style="border:1px solid #000; width:200px; height:70px; background:#e0e0e0;"></div>

Number of ED attendances which are unplanned representations:

<div style="border:1px solid #000; width:200px; height:70px; background:#e0e0e0;"></div>

For the period 1 July 2011 - 30 June 2012, please provide:

Ambulance offload / ramping / stretcher offload time: percentage of all ambulance attendances offloaded within time target (30 min):

<div style="border:1px solid #000; width:200px; height:70px; background:#e0e0e0;"></div>

Ambulance bypass: total number of hours ambulance bypass:

<div style="border:1px solid #000; width:200px; height:70px; background:#e0e0e0;"></div>

Emergency Department Quality Management

Clinical indicators used for quality management/auditing puposes:
1. ACHS Clinical Indictors
2. Other Clinical Indictors
3. None

The ACEM Quality Framework for EDs (Policy No. P28) was introduced in 2007 and has been recently updated. Is your ED:
1. Not aware of it
2. Aware of it but not has not been implemented in your ED
3. Implemented in your ED

Does the quality management system (QMS) in your ED include monitoring/review of the following indicators (Select all that apply):

1. No indicators are monitored (i.e. there is no QMS in my ED)
2. Patient waiting times
3. Incident monitoring
4. All ED deaths
5. Investigations ordered in ED
6. Clinical practice guideline/protocol compliance
7. Follow-up of all ED complaints
8. ED patient satisfaction surveys
9. ED staff satisfaction surveys
10. Other (please list)

Outcomes from QMS review activities of your ED are widely communicated:

	Yes	No	N/A
within your ED:	❏	❏	❏
within your hospital:	❏	❏	❏

Access Targets

With regards to the National Emergency Access Target (NEAT) in Australia or the Shorter Stays in Emergency Departments (SSED) program in New Zealand:

Your perceptions of overall levels of support for Time-based Access Targets amongst

	No Support	Minority Support	Equally Divided	Majority Support	Unanimous Support
Emergency Physicians (FACEMs) working in your ED	❏	❏	❏	❏	❏
Registrars (ACEM trainees) working in your ED	❏	❏	❏	❏	❏
Junior doctors/CMOs working in your ED	❏	❏	❏	❏	❏
Nursing staff working in your ED	❏	❏	❏	❏	❏
Clinical staff in other departments (i.e. outside ED) of your hospital	❏	❏	❏	❏	❏
Clinical leadership at your hospital	❏	❏	❏	❏	❏
Senior management at your hospital	❏	❏	❏	❏	❏

System reforms as a result of implementation of Time-based Access Targets

	yes	no	N/A
ED redesign has been implemented at your hospital to assist in meeting access targets	❏	❏	❏
Additional ED staff have been employed at your hospital to assist in meeting access targets	❏	❏	❏
Hosptial redesign has been implemented at your hospital to assist in meeting access targets	❏	❏	❏
Additional acute in-patient beds have been provided at your hospital to assist in meeting access targets	❏	❏	❏
Improved ED access to radiology services has been implemented to assist in meeting access targets	❏	❏	❏
Improved ED access to pathology services has been implemented to assist in meeting access targets	❏	❏	❏

Your perceptions on the effects of implementation of Time-based Access Targets

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Access targets have increased the efficiency of operations in your ED	❏	❏	❏	❏	❏
Access targets have improved bed management processes at your hospital	❏	❏	❏	❏	❏
Access targets have improved patient flow in your hospital	❏	❏	❏	❏	❏
Access block at your hospital has reduced since the introduction of access targets	❏	❏	❏	❏	❏
ED overcrowding at your hospital has reduced since the introdution of access targets	❏	❏	❏	❏	❏
Access targets have improved training experiences for registrars in your ED	❏	❏	❏	❏	❏
Current access targets are a good measure of emergency department performance	❏	❏	❏	❏	❏
Current access targets are a good measure of hospital performance	❏	❏	❏	❏	❏
Access targets have helped to improve quality of clinical care provided to ED patients	❏	❏	❏	❏	❏

What are the specific barriers with regards to achieving time-based targets at your facility?

What are the specific facilitators/enablers with regards to achieving time-based targets at your facility?

What are the important indicators that need to be measured to assess the safety and effectiveness of time-based access targets?

Any other comments regarding time-based access targets:

Emergency Department Staffing

NOTE: for paediatric EDs please include Paediatrician EM (PEM) specialists with FACEMs in terms of EM specialist physician FTE, roster allocations, etc...

As at 30 June 2012:

	Total Number (head count)	Clinical commitment FTE	Total FTE	Unfilled (vacant) FTE	FTE unfilled for more than 6 months
FACEM (EM specialist physician)	❏	❏	❏	❏	❏
ED Registrar - filled by ACEM Trainees (Advanced & Provisional)	❏	❏	❏	❏	❏
Registrar - filled by other specialty program Trainees	❏	❏	❏	❏	❏
Junior doctors/residents/CMOs/non accredited Registrars (PGY2 and above)	❏	❏	❏	❏	❏
Interns (PGY1)	❏	❏	❏	❏	❏
Nurse Practitioner	❏	❏	❏	❏	❏
Other Nursing	❏	❏	❏	❏	❏
Ancilliary staff	❏	❏	❏	❏	❏
Administrative staff	❏	❏	❏	❏	❏

Number of the junior doctor/resident/CMO/non-accredited registrar positions in your ED filled by International Medical Graduates:

Number of the junior doctor/resident/CMO/non-accredited registrar and registrar positions in your ED filled by Locums:

ED staff turnover (1 July 2011 - 30 June 2012):

	Number of staff who have left ED and been replaced by new employees.
FACEM (EM specialist physician)	❏
Junior doctors/residents/CMOs/non accredited Registrars (PGY2 and above)	❏
Nurse Practitioner	❏
Other Nursing	❏
Ancilliary staff	❏
Administrative staff	❏

Medical/Nursing roster (week day) - please provide numbers with respect to on-floor presence and on-call:

	Day (on-floor)	Day (on-call)	Evening (on-floor)	Evening (on-call)	Night (on-floor)	Night (on-call)
FACEMs (EM specialist physicians)	❏	❏	❏	❏	❏	❏
Registrars	❏	❏	❏	❏	❏	❏
PGY2 and above	❏	❏	❏	❏	❏	❏
Interns (PGY1)	❏	❏	❏	❏	❏	❏
Nurse Unit Manager (or equivalent)	❏	❏	❏	❏	❏	❏
Shift Coordinator / Charge Nurse	❏	❏	❏	❏	❏	❏
Registered Nurses	❏	❏	❏	❏	❏	❏
Enrolled Nurses (or equivalent)	❏	❏	❏	❏	❏	❏
Nurse Practitioners	❏	❏	❏	❏	❏	❏

Medical/Nursing roster (weekend) - please provide numbers with respect to on-floor presence and on-call:

	Day (on-floor)	Day (on-call)	Evening (on-floor)	Evening (on-call)	Night (on-floor)	Night (on-call)
FACEMs (EM specialist physicians)	❏	❏	❏	❏	❏	❏
Registrars	❏	❏	❏	❏	❏	❏
PGY2 and above	❏	❏	❏	❏	❏	❏
Interns (PGY1)	❏	❏	❏	❏	❏	❏
Nurse Unit Manager (or equivalent)	❏	❏	❏	❏	❏	❏
Shift Coordinator / Charge Nurse	❏	❏	❏	❏	❏	❏
Registered Nurses	❏	❏	❏	❏	❏	❏
Enrolled Nurses (or equivalent)	❏	❏	❏	❏	❏	❏
Nurse Practitioners	❏	❏	❏	❏	❏	❏

Other Comments or feedback you would like to provide to the College: