

One State, One Health System, Better Outcomes

DELIVERING SAFE AND  
SUSTAINABLE CLINICAL SERVICES

Supplement No.4

# EMERGENCY CARE

## REBUILDING TASMANIA'S HEALTH SYSTEM EMERGENCY CARE

The *One State, One Health System, Better Outcomes* reform program features the development of a White Paper outlining the Government's plan for the delivery of safe and sustainable clinical services. The White Paper will clearly define what clinical services can be delivered safely and where, and how care can be linked across the primary, secondary and tertiary health care sectors.

To inform the development of the White Paper a Green Paper has been released for public consultation detailing options for a comprehensive, evidence-based proposal for an efficient state-wide and regional service profile.

A series of supplementary documents have been developed to support the Green Paper. These documents will provide a deeper insight into particular areas of the health system, assisting the Tasmanian community to contribute to the public consultation process.

There are five supplementary documents. The first three are focussed on system wide issues that are key factors in the development of the clinical services profile. The latter two are focussed on key areas of ongoing stress and poor performance in our public hospitals;

1. Sustainability and the Tasmanian Health System
2. Tasmania's Health Workforce
3. Building a Stronger Community Care System
4. Emergency care
5. Elective Surgery

This document focusses on emergency care in Tasmania, outlining the functions of the emergency departments (EDs), demand and capacity issues, options for reducing demand, and the health workforce needs of EDs.



*When compared to other Australian jurisdictions Tasmania had the second longest wait time until most admitted patients (90%) departed the ED during 2013-2014*

### Background

ED care is provided at each of Tasmania's major public hospitals. An ED, as defined by the Australasian College for Emergency Medicine (ACEM), is:

a dedicated area in a hospital that is organised and administered to provide a high standard of emergency care to people in the community who perceive the need for, or are in need of, acute or urgent care including hospital admission.<sup>1</sup> Emergency care is also provided in various other settings by a range of providers, such as rural health facilities, general practice, community based providers, and ambulance services.

ED presentations represent a key activity of our acute hospitals, and impact significantly on the healthcare of Tasmanians. Pressure on our EDs is increasing and the Tasmanian community should expect that Government decisions about the design and delivery of emergency care (and in fact the wider health system) will ensure that patients continue to receive high quality emergency care in the future.

<sup>1</sup> Australasian College for Emergency Medicine (2009) Policy on Standard Terminology. Available at <https://www.acem.org.au/getattachment/ce14a569-c43d-4e47-a75d-1964bd01ecb/Policy-on-Standard-Terminology.aspx>

## What is the function of an ED?

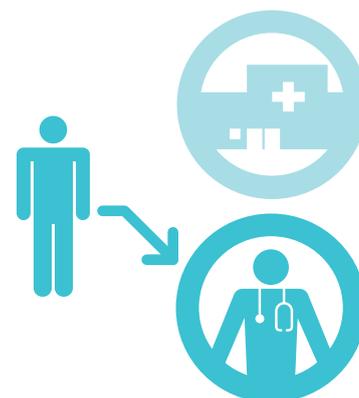
An ED functions to assess, diagnose and treat patients who suffer from an acute serious illness or injury that would lead to severe complications if not treated promptly. Patients are treated in order of clinical priority, not necessarily in order of arrival, with those patients requiring urgent attention always seen first. The focus of ED care provision is addressing the acute injury or illness, moving the patient to the appropriate setting for ongoing management. That may be in an inpatient setting or in the community. For each patient presentation there are three distinct phases within the ED care pathway<sup>2</sup>:

**Input** – how and why patients arrive at the ED. Across Australia the growth in ED presentations has outstripped the national population growth rate. Factors influencing ED demand include reduced access to primary care services, the higher prevalence and impact of chronic disease and the ageing of the population.

**Throughput** – this phase consists of two distinct components. The first component involves triage (sorting and prioritising based on urgency), placement in treatment area and assessment. The second component involves diagnostic testing, treatment, disposition decision and planning. Factors such as health workforce, staff schedules and ratios, ED layout, communication systems and specialist services availability affect this phase of care.

**Output** – the ability to move patients out of the ED into inpatient areas or discharge with appropriate follow-up. Common barriers in this phase are poor access to inpatient beds due to inflexible systems or inadequate planning, inadequate specific bed numbers to cater for special needs such as isolation precautions or telemetry (heart monitoring), overreliance on intensive care/ high dependency beds, or delays in discharging patients to post-acute facilities and the community.

Although the core role of EDs is to assess and stabilise seriously ill and injured patients, the majority of patients who seek care in the ED, do not require admission, and are able to return home directly after receiving appropriate care. While this cohort is often described as “GP-type patients” (indicating that they would be more appropriately seen in a general practitioner setting), many have already seen and been referred by a general practitioner, or require assessment or treatment only accessible in an acute hospital ED. In fact, a significant proportion of patients presenting via ambulance are also discharged home, although many after assessment or treatment that can only be provided in an acute hospital ED.



*The term “GP-type patients” is often used to describe patients that would be more appropriately assessed and managed by a GP.*

## Emergency demand and capacity

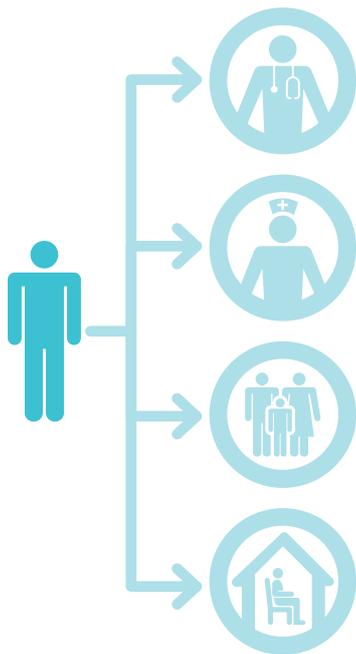
EDs have little direct control over demand for their services. The nature of the demand on any given day is unpredictable, although the annual demand pressures can be forecasted with reasonable accuracy.

ED presentations at Tasmania’s public hospitals have increased over the past decade in line with changes in demography due to population growth, increased incidence of chronic disease, the demands associated with an ageing population and changing patient expectations.

2 Asplin BR, Magid DJ, Rhodes KV, Solberg LI, Lurie N & Camargo CA. (2003) A conceptual model of emergency department crowding, *Annals of Emergency Medicine*, 42(2), 173-180.

1.2% vs  
4.8%

*Increases in ED presentations in Tasmania over the last five years are significantly less than the national average.*



*An improvement in discharge planning could improve our ED representations.*

## ED activity

In the 12 months ending 30 June 2014 (compared to the same period in the previous year), ED presentations:

- Increased by 6 per cent at the RHH
- Increased by 1 per cent at the LGH
- Decreased by 5.7 per cent at the NWRH
- Decreased by 2.8 per cent at the MCH.

Statewide ED presentations increased by 0.8 per cent between 2012-2013 and 2013-2014. Emergency presentations in Tasmania have increased by an average of 1.2 per cent per year over the past five years, well below the national average increase of 4.8 per cent per year.<sup>3</sup>

Given the changes in demand, and the need for sustainability in all aspects of the health services we provide, it is also important to analyse the sources of presentations to the state's EDs. In a well-functioning system, there should be appropriate access to post-ED or post-admission care, such as community services, public outpatients clinics, or the patient's general practitioner or other treating specialist. 'Representations' to the ED- that is, where a patient returns to an ED with a related complaint within a given period- should be minimal. Unplanned representations have traditionally been used as an indicator of sub-standard care, and while some conditions warrant a planned return to the ED- for instance to track the progress of a low acuity condition or to facilitate review of a potentially changeable condition- planned representations indicate an ED, in essence, "generating its own demand". As such, a high rate of representations, whether planned or unplanned, indicates significant concerns about the quality of care or the level of supportive services.<sup>4</sup>

The table below indicates the levels of planned and unplanned representations (within 48 hours of previous presentation) in our state's EDs, and shows that some consideration needs to be given to alternatives to care.

Planned and unplanned ED representations within 48 hours, by hospital, 2013-2014					
Hospital	Total presentations	Planned representations		Unplanned representations	
		Number	%	Number	%
RHH	54 053	252	0.47%	2 370	4.38%
LGH	44 989	950	2.11%	2 779	6.18%
NWRH	22 824	796	4.28%	1 224	5.36%
MCH	26 549	740	2.79%	1 263	4.76%
Statewide	48 415	2 738	1.84%	7 636	5.14%

3 Australian Institute of Health and Welfare (2014) Australian hospital statistics 2013-14: emergency department care, Health service series no.58 Cat. no. HSE 153. Canberra: AIHW.

4 Robinson K & Lam B (2013) Early emergency department representations, Emergency Medicine Australasia, 25, 140-146.

Some of these representations are related to the progression of an illness or injury; complications; patients who initially decide not to wait for treatment then return a later (often prearranged) time; or lack of referral to alternative providers such as general practitioners, outpatient services or community nursing. A proportion of these ED representations are considered to be preventable with improvements in discharge planning including referral to outpatient clinic settings for review or follow-up care and treatment by community nurses and general practitioners.

Reports from other jurisdictions have identified concerns with data integrity within their ED information systems.<sup>5,6</sup> With the increased emphasis on time based performance targets for EDs, data capture must be accurate and reliable. The Tasmanian Emergency Department Information System Replacement Project provides an opportunity to manage the risks associated with data quality and integrity within the current system. The move to a single Tasmanian Health Service will help to ensure consistent data capture on a statewide basis.

### Access Block and Overcrowding

Many people have heard the term “access block”. It is a term that is frequently used in the context of “overcrowding” in our EDs and also when ambulance ramping occurs, but the two terms are not interchangeable

Access block represents the inability to transfer patients within the ED requiring inpatient admission to the ward in a timely manner.<sup>7</sup> It is expressed as the proportion of admitted patients who spend more than eight hours in the ED.

Overcrowding is a broader term that indicates that the volume of patients – whether awaiting assessment, treatment, admission or discharge – exceed the capacity of the physical or human resource of the ED.

Access block is not just an inconvenience for patients and staff – research shows it is associated with much greater waiting time for patients in the ED and a greater risk of adverse events and even death as an inpatient.<sup>8</sup>

ED capacity is reduced by “access block with the flow on effect of reducing the ability for staff to assess and treat new patients. ED overcrowding has been recognised as a major public health issue internationally, compromising patient safety and contributing to poor patient outcomes. However, ED crowding is primarily a system issue, not merely an ED problem - its causes and solutions largely reside outside the ED.

ED demand is also impacted by a lack of access to general practitioners within the community, leading to presentations with non-urgent conditions. Options to address ED capacity issues include utilisation of hospital avoidance programs, improving the efficiency of EDs and improved management of hospital beds.

5 Australian Capital Territory Auditor-General's Office. (2012) Emergency department performance information. Report No. 6/2012, Canberra: ACT Government. Available at [http://www.audit.act.gov.au/auditreports/reports2012/Report%20No.%206%20Emergency\\_Department\\_Performance\\_Information.pdf](http://www.audit.act.gov.au/auditreports/reports2012/Report%20No.%206%20Emergency_Department_Performance_Information.pdf)

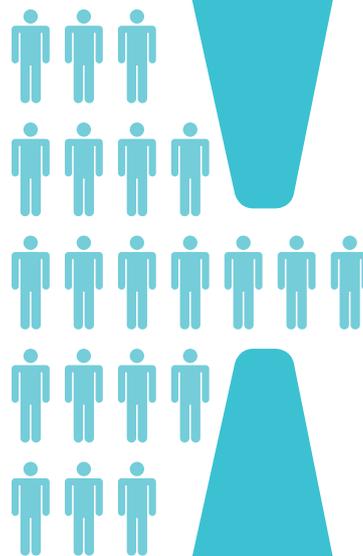
6 Auditor-General of Queensland. (2014) Emergency department performance reporting. Report 3: 2014-15, Brisbane: Queensland Audit Office. Available at <https://www.qao.qld.gov.au/files/file/Reports%20and%20publications/Reports%20to%20Parliament%202014-15/RtP3Emergencydepartmentperformancereporting.pdf>

7 Cameron P, Joseph AP & McCarthy SM. (2009) Access block can be managed, Medical Journal of Australia, 190, 364-368.

8 Forero R, Hillman KM, McCarthy S, Fatovich DM, Joseph AP & Richardson DB (2010) Access block and ED overcrowding, Emergency Medicine Australasia, 22, 119-135.

*“Access block” is the inability to transfer patients from ED to a ward bed.*

*Access block is associated with a greater risk of adverse events and even death as an inpatient.*



*“Overcrowding” is associated with excessive numbers of patients remaining in ED after emergency care is provided.*

The National Emergency Access Target was introduced to address concerns with access to and throughput in EDs. This target encourages hospitals to implement redesign initiatives in order to improve the proportion of patients departing the ED within four hours of arrival.

In an effort to improve efficiency, there has been a tendency to date to focus predominantly on ED delays, such as ED physical design and processes. This disregards the impact of the strong competition for the fixed resource of inpatient beds from elective surgery, direct admissions from the community or other hospitals and ED admissions. The issues with patient flow in acute hospitals have been highlighted in the Issues Paper<sup>9</sup> and the required approaches include:

- Promotion of alternatives to EDs such as general practice and other primary care services.
- Increased hospital capacity through better bed management, reducing the patient average length of stay, improving bed turnover and the effective use of hospital escalation and capacity management.
- Improved discharge and transfers for patients leaving hospital, through early discharge planning and improving inter-facility communication and protocols.

## Reducing pressure on emergency departments

### Addressing Access Block and Overcrowding through Clinical Redesign and Models of Care

Most of the causes of access block and ED overcrowding are outside the control of the ED. These include such factors as the access to diagnostics (imaging and pathology), delays in admission processes, lack of available appropriate inpatient beds and suboptimal inpatient discharge practice.

Experts advocate realignment of resources and patient flows between acute, subacute, primary and community-based health care to drive improved utilisation of resources.<sup>10</sup> Within Tasmania, there is a clear need for continued system improvement to enhance patient flow through hospitals and to improve the pathways to sub-acute care and community care. Many of these initiatives require a significant culture change, and healthcare staff must be encouraged to consider ways to collaborate more effectively to improve patient care. Furthermore, there needs to be focus on clinical redesign and robust evaluation to improve patient flow and increase efficiency.

Tasmanian hospitals have adopted many contemporary ED models of care including fast track clinics for minor injuries and illnesses, “Hot clinics” offering a ‘walk-in’ service delivered by a general physician for patients with medical conditions, and short stay units designed for patients who require short term inpatient care. While it is important to optimise the capacity and efficiency



*We need to continue to improve and enhance patient flow.*

9 Rebuilding Tasmania's Health System Issues Paper 2014: [http://www.dhhs.tas.gov.au/\\_\\_data/assets/pdf\\_file/0006/170565/Rebuilding\\_Tasmanias\\_Health\\_System\\_-\\_Issues\\_Paper.pdf](http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0006/170565/Rebuilding_Tasmanias_Health_System_-_Issues_Paper.pdf) accessed on 13 October 2014

10 Council of Australian Governments (2011) *Expert Panel Review of Elective Surgery and Emergency Access Targets: Report to the Council of Australian Governments 30 June 2011*, Canberra: Commonwealth of Australia.

of EDs through adopting contemporary models of care, system wide process changes are also required in order to achieve significant improvement in performance.

Emergency care workforce improvements need to be refined to ensure the workforce meets peak periods of demand. Promoting early review by consultants/senior medical staff (“medical decision makers”) will lead to timely decision making, streaming to the most appropriate place for care and reduction in unnecessary investigations. This model challenges the traditional approach to care of patients with initial management by a junior doctor and no senior review until late in their stay in the ED. This of course, must be balanced with the financial and training imperatives in constituting an appropriate balance of junior and senior medical staff.

ED efficiency may also be improved with advanced practice nursing models of care. Nurse practitioners practise with a high degree of autonomy and provide care for a wide range of patients although most commonly those with minor illnesses and injuries. Advanced practice nursing models (and ensuring that nurses are able to work to full extent of their existing scope of practice) will lead to improved patient flow through the ED and free medical staff to focus on urgent and complex cases. Evidence indicates that advanced practice nursing models contribute positively to efficiency and timeliness, the provision of appropriate care and improved patient satisfaction.<sup>11</sup> There is also potential scope for physician assistants who may provide uncomplicated core primary medical care (under physician supervision).

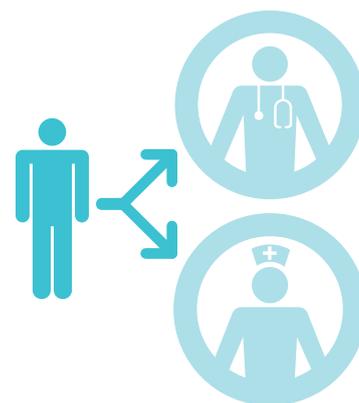
There is also the opportunity for EDs to play a constructive role in preventing hospital admissions, particularly for conditions that can be safely managed in an ambulatory care environment. Multidisciplinary teams have a pivotal role in addressing the needs of the increasing proportion of patients with complex health problems as well as older patients and presenting to EDs. These multidisciplinary teams help to reduce ED representations, improve communication with other community providers and reduce hospital admissions.

## Efforts to reduce non-urgent presentations to EDs

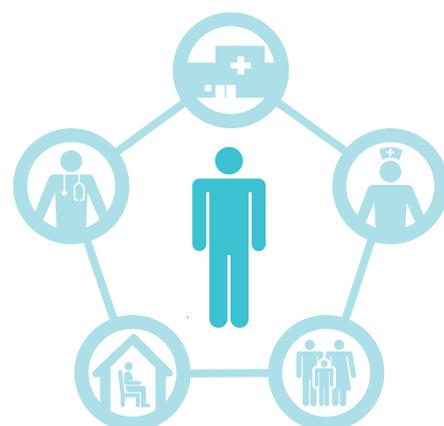
Some patients see EDs, rather than their local General Practitioner, as their first port of call when unwell or injured. Although ED congestion is not solely affected by patients presenting with less urgent conditions, this group of patients could perhaps be more appropriately managed in the primary care setting.

The exact reasons driving ED attendance for less urgent conditions are largely unknown. Possible contributing factors include:

- Proximity,
- Convenience,
- Accessibility,
- Cost,
- General practitioner accessibility,
- Self-perceived level of urgency and/or lack of awareness of alternatives.

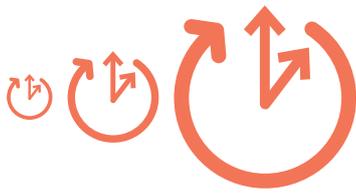


*Some ED patients would be better managed in the primary care setting*



*System wide changes to models of care are required to achieve significant improvement in emergency department access.*

<sup>11</sup> Fry M (2009) *Hospital nurse practitioners – models, roles and scope of practice: a rapid review*, Haymarket: Sax Institute. Available at <https://www.saxinstitute.org.au/publications/evidence-check-library/hospital-nurse-practitioners-models-roles-and-scope-of-practice/>



*If demand for services continues to grow waiting times will increase and there will potentially be a degradation of the quality of services provided.*

Evidence suggests that patients present for what they perceive to be legitimate reasons. Any change to health services needs to carefully consider patient perceptions that influence their choice to attend the ED or alternative care services.

A failure to meet needs outside of hospital often results in people seeking help from services that are highly responsive and resource intensive - particularly ambulance services and EDs. There is a perception that the pressure experienced by EDs is not a sign of failing services, but that they have become “victims of their own success” driven by the fact that the majority of patients are seen within the recommended times. If demand for ED services continues to grow without significant reform, the likely consequence will be increased waiting times and reduced access for patients requiring care, and a potential degradation of the quality of care provided, particularly for those requiring urgent intervention.

After hours primary health care is an integral part of an accessible and comprehensive health system. Unfortunately, many patients remain unable to access after hours care by a general practitioner. This drives the decision by some Tasmanians to visit EDs. Enhancing after hours care services in isolation of others strategies is unlikely to significantly reduce the demand on EDs as many ED presentations are legitimate.<sup>12</sup>

The mix of non-urgent and acute/emergency presentations in EDs is challenging and impacts on the ability to provide timely treatment for genuine emergencies, leading to a decline in the quality of care. Care provision in the ED is geared toward the injury/illness for which the patient presents rather than a more time consuming and resource intensive holistic approach (a primary care focus). Although it is difficult to quantify, there may also be potential to enhance patient outcomes through holistic/case management in the primary care setting.

## Urgent care centres

For people with acute but non-life threatening complaints there is a need to provide a highly responsive, effective and personalised alternative to the ED. Urgent care centres have been implemented in a number of countries to streamline the management of non-complex, low acuity, non-admitted patients presenting to EDs, and thereby free up resources and expertise to manage more critically ill or injured patients.

Urgent care centres tend not to operate 24 hours per day but during peak periods, particularly after hours and on weekends, and cater for walk-in presentations rather than those arriving via ambulance. Many urgent care centres are privately operated (for-profit) businesses that provide a convenient alternative to EDs for those able to afford the service. However, some hospitals have developed urgent care centres that do not charge a fee. An example of this would be the walk-in centres and nurse-led minor injury units established in the United Kingdom. These centres are funded by the National Health Service, protocol driven and primarily nurse-led, and offer a drop-in service with extensive opening hours, in convenient locations. The aim of these services is to reduce demand on other providers, particularly general practitioners and EDs.

<sup>12</sup> Nagree Y, Carmard VJ, Fatovich DM, Cameron PA, Dey I, Gosbell AD, McCarthy S & Mountain D. (2013) Quantifying the proportion of general practice and low acuity patients in the emergency department, *Medical Journal of Australia*, 198(11), 612-615.

Within Australia there are similar models in place, such as the walk-in centre in the Australian Capital Territory.<sup>13</sup> While evidence indicates that such services have high patient satisfaction rates and low clinical risk profiles<sup>14</sup>, there is also evidence that establishing such centres in close proximity to acute hospital EDs may in fact increase attendances at those EDs.<sup>15</sup> There is scope for this model of care to be considered for implementation in Tasmania.

### **Making it easier for people to navigate the health system**

For health consumers it can often be daunting and confusing to determine which service they should access when they have an unexpected health problem.

Services include telephone triage health advice, pharmacists, local general practitioners, after hour's general practitioners or the local ED. All too often the default option is the ED.

Providing more information to the public may assist with reducing pressure on EDs and ensuring that the community is more aware of the health care options available. Education campaigns have been delivered in other states (Western Australia and Queensland)<sup>16</sup>, particularly at the start of influenza season, to provide information on other local appropriate health services and remind people that EDs should only be used for urgent and life threatening emergencies.

## Health workforce needs for emergency departments

The Government's commitment to health system reform includes determining the sustainable staffing requirements necessary to deliver safe, high quality emergency care. The Tasmanian community must be confident that their health system is accessible with clinical expertise in the right locations. Access to senior experienced emergency staff leads to timely decision making and better outcomes for patients.

There is no single ED staffing model that will suit all hospitals. In many Australian EDs, senior clinicians can be emergency medicine specialists, general practitioners with enhanced emergency skills or career medical officers with extensive experience and/or other post graduate qualifications. Senior staffing composition is dependent upon multiple factors including:

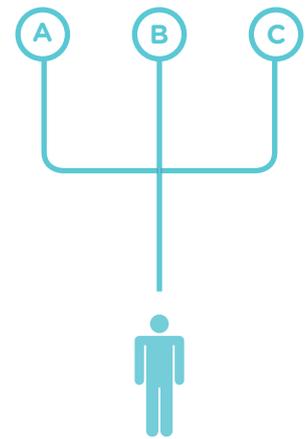
- geographical location
- hospital service profiles and ED size
- complexity of presentations (including percentage of paediatrics and over 85 year olds, chronic disease burden, percentage of major trauma, percentage of inter-hospital transfers)
- financial pressures
- the training needs of the ED

13 <http://health.act.gov.au/walk-in-centre>

14 Arain M, Nicholl J & Campbell M (2013) Patients' experience and satisfaction with GP led walk-in centres in the UK; a cross sectional study, *BMC Health Services Research*, 13, 142-150.

15 Parker RM, Forrest LE, Desborough J, McRae I & Boyland T (2011) Independent evaluation of the nurse-led ACT Health walk-in centre, Canberra: Australian Primary Health Care Research Institute. Available at <http://health.act.gov.au/consumers/community-consultation/walk-in-centre-evaluation-report>

16 <http://www.health.qld.gov.au/news-alerts/news/140901-gp.asp> and <http://www.health.wa.gov.au/snapshots/emergencies.cfm>



*Highly responsive, effective and personalised alternatives to the ED are required for people with acute but non-life threatening complaints*



*For health consumers it can often be daunting and confusing to determine which service they should access when they have an unexpected health problem.*

Within Tasmania, ED workforce profiles and shift schedules are largely based on historical, department specific presentation trends and traditional rostering methods. This leads to inequities and differences between departments and jurisdictions.

While there is no nationally accepted Australian system for calculating ED medical staffing requirements, the Australasian College for Emergency Medicine has released Guidelines on Constructing an Emergency Medicine Workforce<sup>17</sup>, which provides useful guidance on ED medical staffing requirements.

## Glossary:

Access block	The inability to access appropriate beds in a timely manner for emergency patients within the emergency department who have been assessed as requiring inpatient admission. <sup>7</sup>
Complexity	The total diagnostic and procedural effort expended in assessing and managing a patient during an emergency department attendance. <sup>18</sup>
Disposition	A decision to transfer, observe or discharge the patient
Emergency department	A dedicated area in a hospital that is organised and administered to provide a high standard of emergency care to people in the community who perceive the need for, or are in need of, acute or urgent care including hospital admission. <sup>1</sup>
Overcrowding	Overcrowding is most strongly associated with excessive numbers of admitted patients remaining in the emergency department instead of being transferred to an inpatient bed (normally because an appropriate bed is not available) when the emergency phase of care is completed. <sup>19</sup>
Triage	A brief clinical assessment that determines the clinical urgency of the patient's presenting problem and culminates with the allocation of an Australasian Triage Scale category, which determines the time and sequence in which they receive emergency care. <sup>20</sup>

17 Australasian College for Emergency Medicine (2008) *Guidelines on constructing an emergency medicine workforce* <https://www.acem.org.au/getattachment/68403bae-7e10-40aa-9243-2eb9db285684/Constructing-an-Emergency-Medicine-Workforce.aspx> accessed on 13 October 2014

18 Sprivilis, P. (2004) Pilot study of metropolitan emergency department workload complexity, *Emergency Medicine Australasia*, 16, 59-64.

19 Australasian College for Emergency Medicine (2011) Statement on emergency department overcrowding. Available at <https://www.acem.org.au/getattachment/0789ef2f-d814-4e86-af81-aad8b9e57c6d/Statement-on-Emergency-Department-Overcrowding.aspx>.

20 College of Emergency Nursing Australasia (2009) Position Statement: Triage Nurse. Available at [http://www.cena.org.au/CENA\\_Mer/Research\\_Publication/Position\\_Statements/CENA\\_Mer/Resources/Position\\_Statements.aspx?hkey=54413819-e458-4a2d-942a-7ff17571366f](http://www.cena.org.au/CENA_Mer/Research_Publication/Position_Statements/CENA_Mer/Resources/Position_Statements.aspx?hkey=54413819-e458-4a2d-942a-7ff17571366f)

For more information on the *One State, One Health System, Better Outcomes* reform package please visit: [www.dhhs.tas.gov.au/onehealthsystem](http://www.dhhs.tas.gov.au/onehealthsystem) or alternatively send an email to: [onehealthsystem@dhhs.tas.gov.au](mailto:onehealthsystem@dhhs.tas.gov.au)

