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ACI Agency for Clinical Innovation

Where *do* NEAT and patient safety meet?

Dr Sally McCarthy
FACEM MBA
Medical Director
NSW Emergency Care Institute
May 2013

At last, the debate is over…

"Access block and Emergency Department overcrowding are the single biggest threat to the provision of safe emergency care"

- Unnecessary deaths and increased LOS in hospital
- Delayed ambulance off loads
- Delays in treatment
- Risk of cross infection
- Adverse effects on workforce

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NEAT

THE POST- NEAT ERA …

Is “safety” enough?

“The aforementioned issues have led to us **routinely substituting quality care with merely safe care**; while this is not acceptable to us, **what is entirely unacceptable is the delivery of unsafe care**; but this is now the prospect we find ourselves facing on too frequent a basis.”

Extract from a letter from West Midlands ED Directors to NHS executive leaked to *The Independent*

published MONDAY 20 MAY 2013

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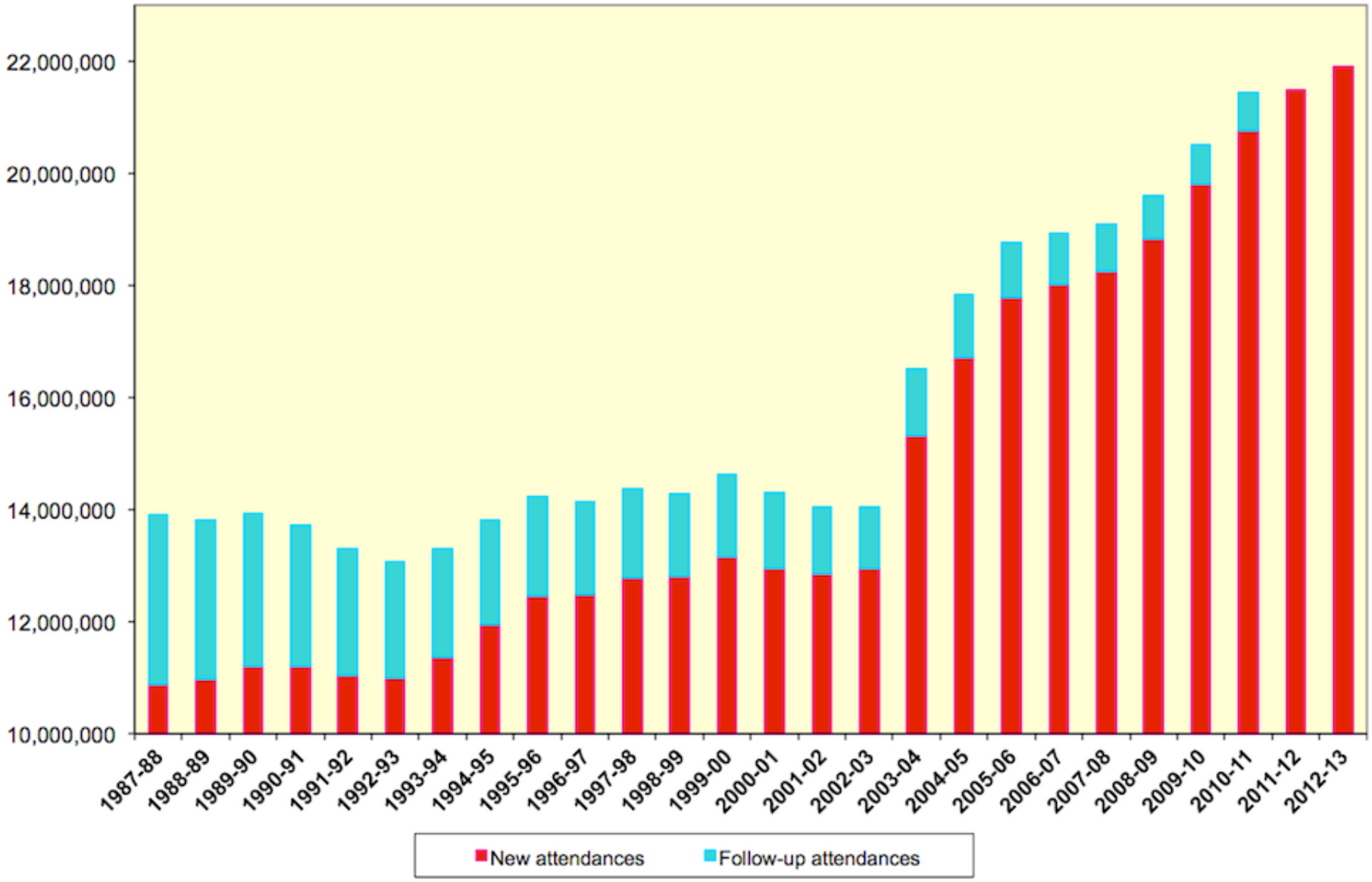
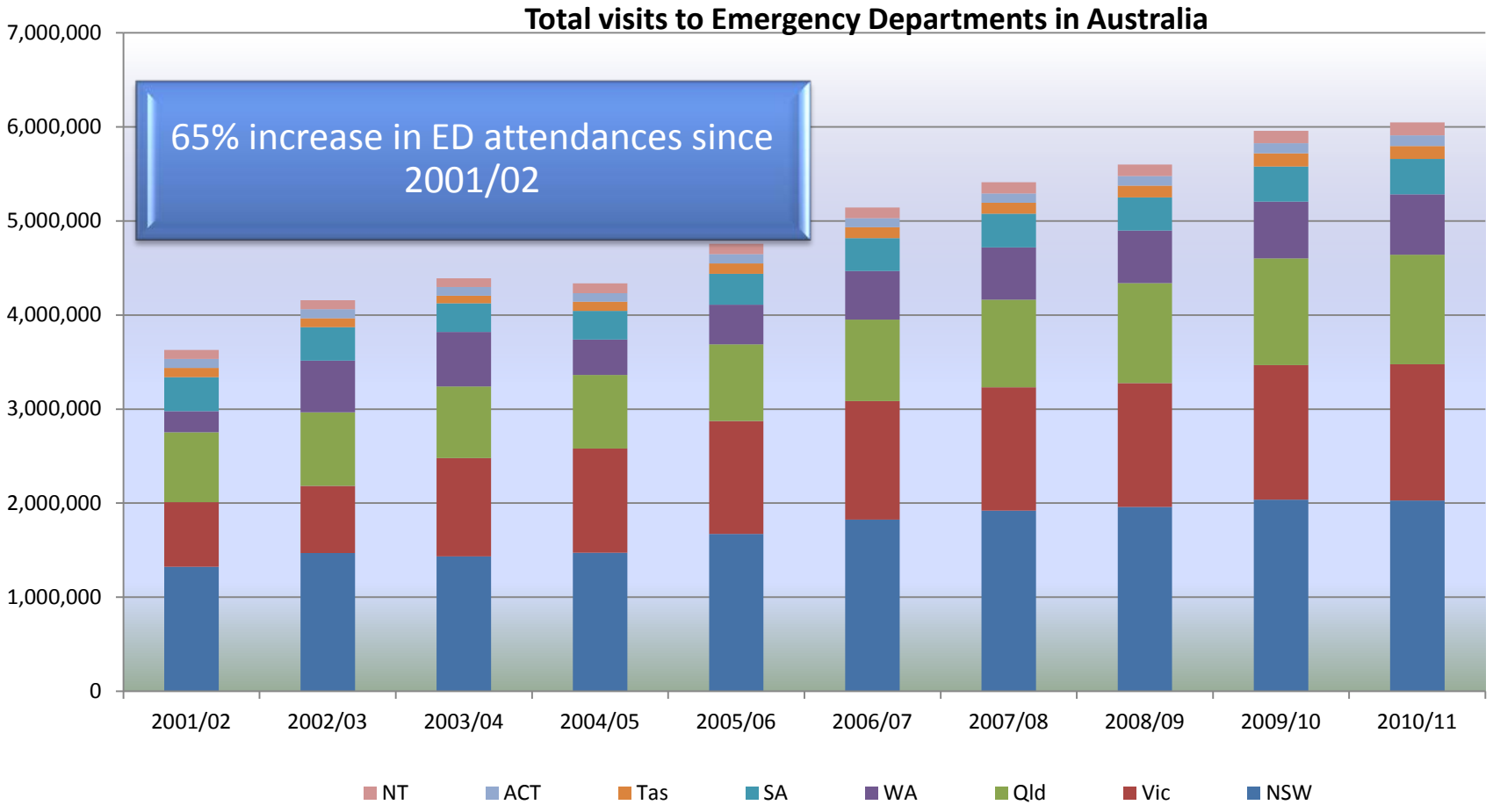
Emergency Department Attendances - England 1987- 2013

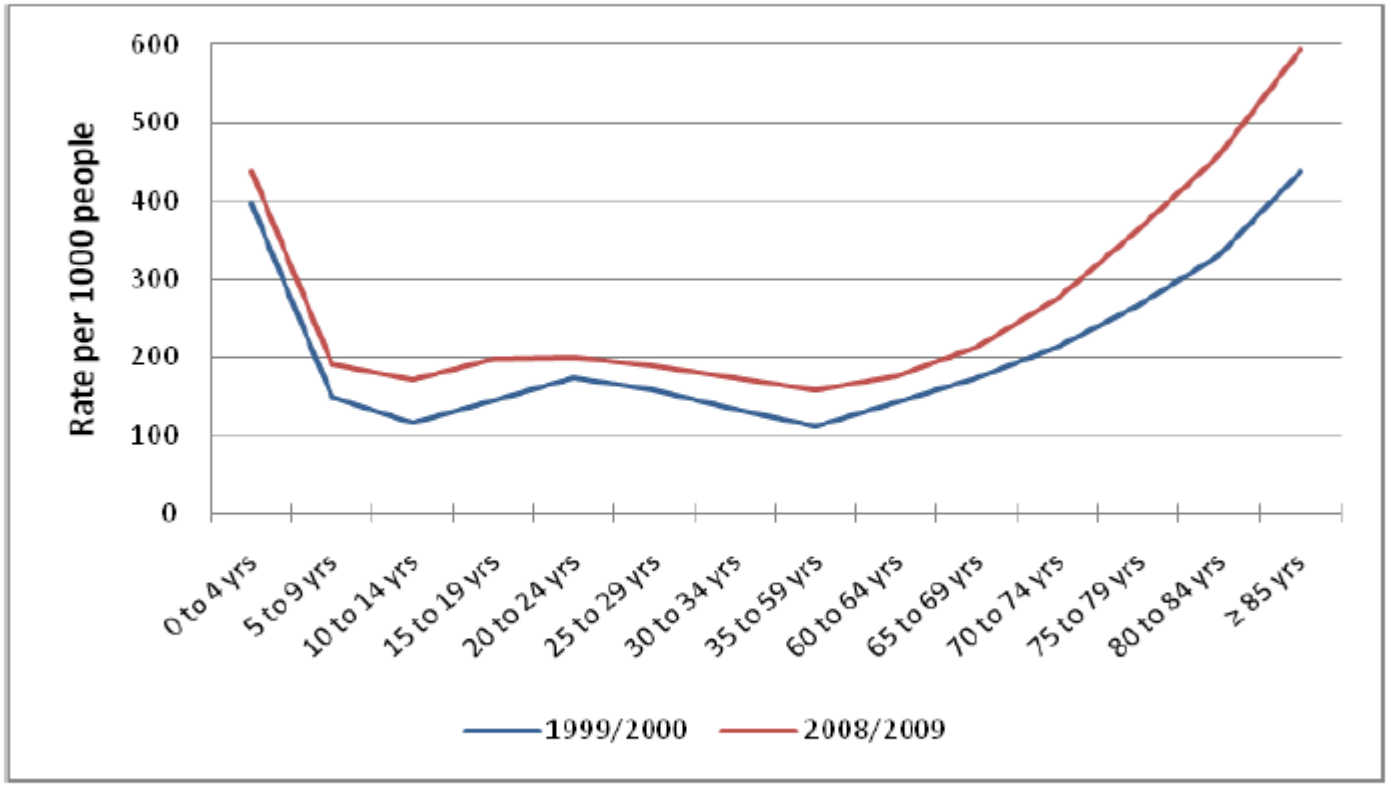


ED Attendances increasing in Australia



Source: AIHW Hospital Statistics, Total visits to EDs in Australia, 2001/02 – 2010/11

Presentation rates per 1000 people by age group



Lowthian J et al. *Demand at the ED front door: is the 4 hour target the answer?*

History

Post 4 hour rule introduction

- UK Reports ranged from improving patient care and driving positive whole-of-hospital reform, to negative outcomes: gaming of data, diversion of funding incentives, dysfunctional organizational behaviour and compromise in clinical patient outcomes.

- The main reason given for not reaching the target was "*not enough inpatient beds*"

April 2009: WA 4 hour rule introduced

July 2009: NZ Shorter stays in ED (6 hour rule)

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BMA Survey Jan 2005

- **82% reported threats to pt safety** due to pressure to meet 4 hr target
  - Care of seriously ill / injured compromised
  - Pts D/C from A & E before adequate assessment or stabilisation
  - Pts moved to inappropriate areas / wards

- Sustainable improvements require
  - Management support for hospital-wide changes

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Some lessons from the NHS 2006

NHS Institute for Innovation and Improvement

- **have unified goals for cost reduction and quality improvement**
- execute relentlessly
- invest in hearts and minds
  - frame the proposition
- **make the Finance Leader a champion of quality**
- seek to continuously improve

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Report of national survey of emergency medicine (BMA Jan 2007)

- 505 / 1538 respondents of BAEM
- **56% thought EAT was achievable**
- Not enough inpatient beds
- Use of locum staff to meet targets
- Data manipulation
- Pressure / overwork
- Lack of after- hrs GP services

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Report of national survey of emergency medicine (BMA Jan 2007)

- Comments
  - "**Target is not sole responsibility of emergency medicine, and other specialties have responsibility to see it being delivered**. Similar targets should be set for medical teams re: length of stay of patients and minimum number of times patients should be seen on wards by a decision maker (middle grade). Also targets for community to supply placements and assessments for bed blockers. Patients entire journey needs to be looked at"

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Emptying the Corridors of Shame: Organizational Lessons From England's 4-Hour Emergency Throughput Target

Weber EJ, Mason S, Carter A, Hew RL Ann Emerg Med. 2011 Feb; 57(2):79-88.e1.

This was a qualitative study of EDs in England, purposively sampled for a range of size and performance on the target. Leadership of EDs at 9 Acute Trusts (hospitals) were interviewed between June and August 2008.

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Results

Respondents agreed on the following themes.

(1) Interdependency: Even with extensive ED process re-engineering, **widespread Trust involvement was essential** to meeting the target. Additionally, lack of recognition that it was a "Trust target" contributed to conflicts between staff, concerns for patient safety, and lost opportunity for organizational improvement.

(2) Contrasting change management strategies: ED leadership used collaborative strategies, whereas **change in the rest of the hospital required a top-down approach.**

(3) Burden and benefit for staff: Nursing perceived the greatest burden from the target but also acquired enhanced authority, skills, and roles.

(4) Costs: **Although most EDs are now within range of the target, consistent performance while balancing patient safety remains tenuous.**

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UK CEM response to UK target changes

June 2010

CEM welcomes changes to the 4-hour target

"The College of Emergency Medicine (CEM) welcomes today's announcement by the Secretary of State that the 4-hour emergency access standard is to be lowered from 98% to 95%.

We believe that this now represents a level that will allow focus on an improved quality of care and clinical safety for our patients

while preserving all the positive benefits that an increased spotlight on emergency care, delivered in our Emergency Departments in recent years, has achieved."

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UK outcomes

The four hour target to reduce emergency department 'waiting time': A systematic review of clinical outcomes

Peter Jones, Karen Schimanski EMA 2010 Oct; 22(5):391–98

"There is no clear evidence that the target to ED completion of 98% of patients in 4 h in itself has had any effect on the quality of care in ED in the UK."

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UK 2012

Figures for January 2012 show that the median wait for ambulance cases to be assessed by a health care professional (triage) was 3 minutes (95% seen in 47 minutes)

and the median time for all cases to be seen by a decision making clinician is 49 minutes (95% in 85 minutes)

This has only been collected nationally since April 2011 and so we cannot assess change over the last few years.

Matthew W Cooke, National Clinical Director for Urgent & Emergency Care
Department of Health, London, UK 28/6/12 Emerg Med J e-letter

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Report of The Mid Staffordshire NHS Foundation Trust Public Inquiry

Robert Francis QC February 2013

"I said that it should be patients – not numbers – which counted"

… primarily caused by a serious failure on the part of a provider Trust Board.

It did not listen sufficiently to its patients and staff or ensure the correction of deficiencies brought to the Trust's attention. Above all, **it failed to tackle an insidious negative culture involving a tolerance of poor standards and a disengagement from managerial and leadership responsibilities**. This failure was in part the consequence of allowing a focus on reaching national access targets, achieving financial balance and seeking foundation trust status to be at the cost of delivering acceptable standards of care.

A culture focused on doing the system's business – not that of the patients

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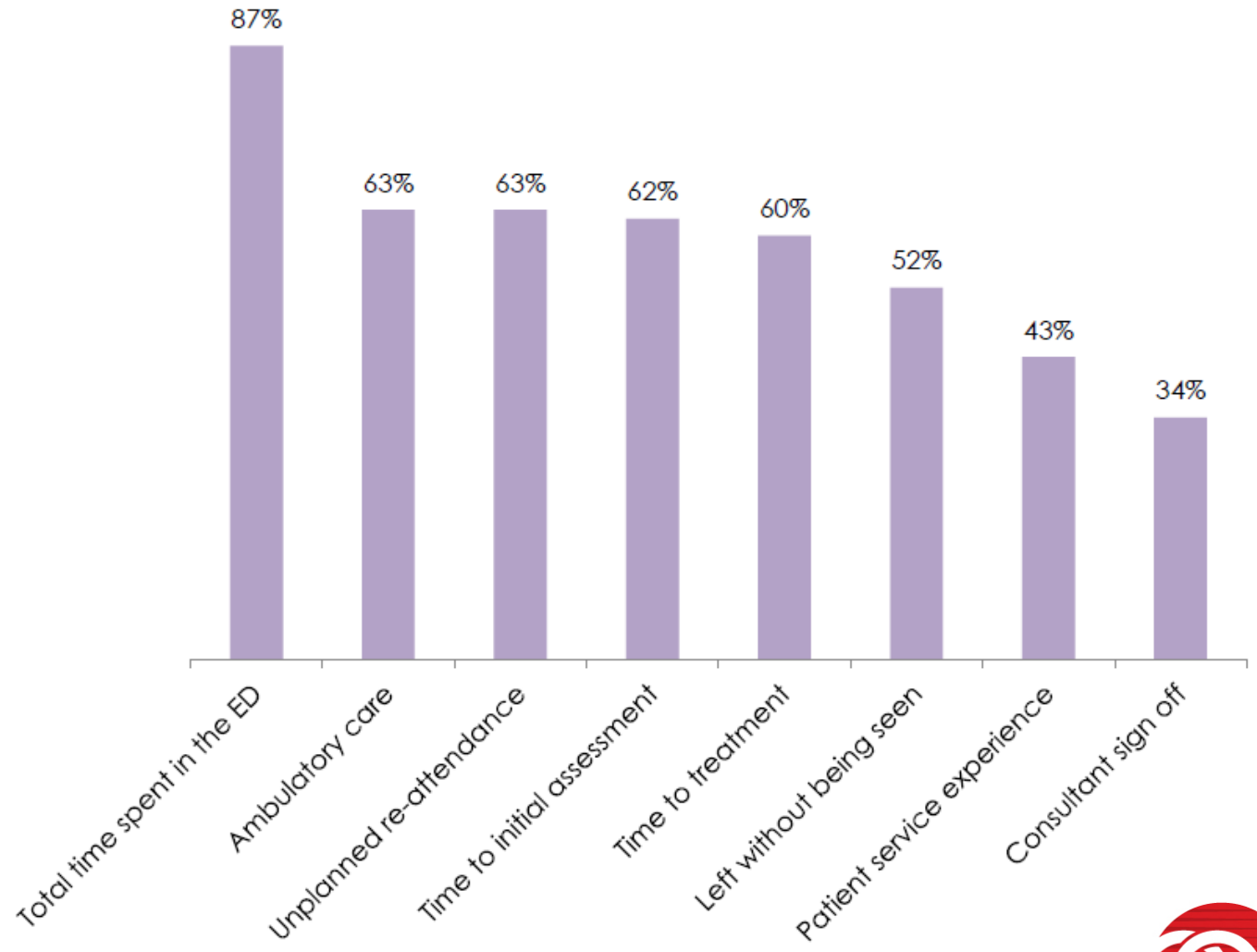
Clinical quality indicators being used to commission urgent & emergency care – by % of responses (England only)



82 EDs in England responded to this question

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CEM – The Drive for quality – System benchmarks for EDS in the UK – Report May 2013

How are EDs performing against the quality indicators for urgent & emergency care? (England only)

QI performance averages (except patient experience and consultant sign-off)	All EDs	>100,000 attendances	80,000 – 99,999 attendances	50,000 – 79,999 attendances	<49,999 attendances
Time in the ED – % less than 4hrs	95.57	95.31	95.29	95.47	95.74
Time to initial assessment for patients arriving by ambulance – % less than 15 minutes	74.19	71.03	69.57	80.28	65.02
Time for arrival to treatment by a decision maker – % within less than 60 minutes	52.10	49.21	48.80	53.88	53.98
% Left Without Being Seen	2.47	2.68	2.90	2.43	1.70
% Unplanned re-attendance to the ED within 7 days	4.23	5.00	4.91	3.62	3.75
% of patients where ED stay ED exceeding 6hrs	2.62	2.27	3.79	2.46	2.16

CEM – The Drive for quality – System benchmarks for EDS in the UK – Report May 2013

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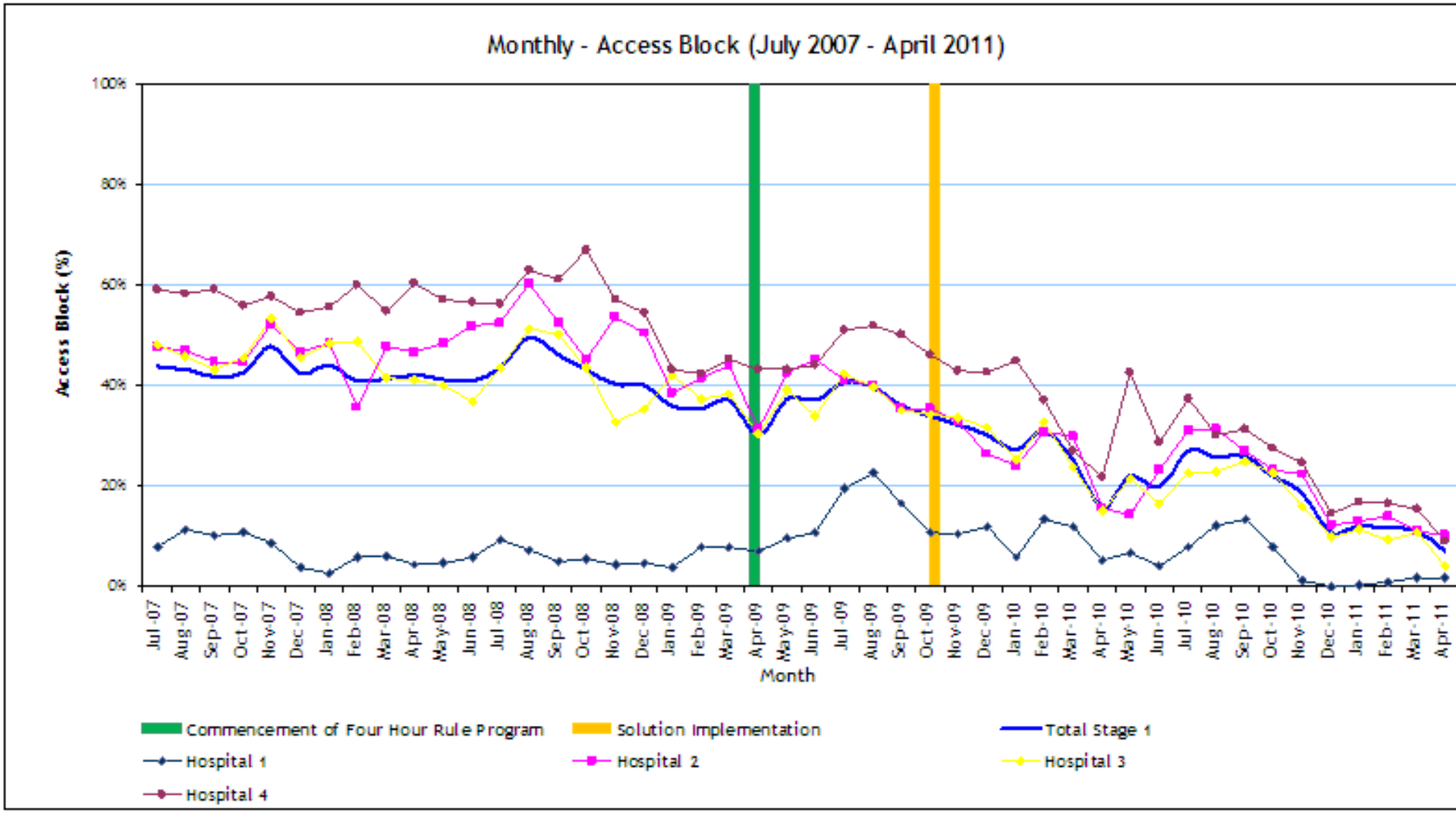
Access block and the introduction of the Four Hour Rule Program in four Western Australian hospitals



WA Four Hour Dashboard

Quality and Clinical Outcome Measures
Unplanned re-attendance to ED within 48 hours (%)
- Attendances (%)
- Patients (%)
In-hospital mortality for admissions from ED (%)
-Rate
-Standardised mortality ratio
No. of MRSA infections / 10,000 bed days
No. of Sentinel Events
No. of Complaints

Concerns from EDs

- Focus on target, not on patient: “hitting the target and missing the point”
- Loss of specialty skills: “Glorified triage”
- Critical incidents
- Promote dysfunctional culture and conflict

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The Politician's view

"The Four Hour Rule Program has **clearly delivered remarkable improvements in quality and safety outcomes for the Western Australian community**, and all of our staff have made it clear they do not want to return to the working environment prior to the program's implementation," Mr Snowball said.

"However, such a significant hospital-wide change is not without its difficulties. I am very pleased the review has been able to more closely examine the concerns raised by staff to ensure they could be validated and where validated, make clear recommendations."

Jan 25 2012 Four hour rule 'putting pressure on medical staff' WAtoday.com.au

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WA results

- "no-one wants to go back"
- Stokes review

Four Hour Rule Program Progress and Issues Review. December 2011. Perth: Department of Health WA. http://www.health.wa.gov.au/publications/documents/FourHourRule_Review_Stokes.pdf

"The FHRP has seen significant improvement in patient flow across all Stage One Hospitals. The Reviewer consulted with over 315 health workers and no one indicated a desire to return to pre-FHRP processes. However, many areas are struggling with the changes it has brought, and this requires revisiting some key reform concepts.

Reform of this scale **requires significant *sustained executive support and accountability. It is vital the status and governance of the FHRP is part of every* hospital executive committee's core business for change** to be achieved and sustained. The findings of the Review indicate that **this is not the case consistently** across all hospitals." (executive summary page 3)

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Stokes review

Better patient outcomes in a number of areas

- No evidence of increased mortality
- No evidence of adverse effects due to patients being transferred to a wards prematurely
- No evidence of increased ED or hospital readmission rates
- No evidence of infection control issues

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WA outcomes: published

The National Emergency Access Target (NEAT): can quality go with timeliness?

Maumill L et al, Med J Aust 2013; 198 (3): 153-157.

Results: The percentage of patients admitted, discharged or transferred within 4 hours of arrival at the ED increased from 87% in 2009 to 95% in 2011. Safety and quality measures, including the admission rate from the ED, unplanned reattendances at the ED within 48 hours of discharge, patient complaints and inhospital mortality, remained unchanged. The percentage of patients discharged from inpatient wards before 10 am increased from 18% in 2009 to 30% in 2011.

Conclusions: The introduction of a 4-hour-rule program has **resulted in improved timeliness of care for patients throughout the hospital, both in the ED and inpatient wards, with no adverse impact on the quality and safety of clinical care.**

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WA outcomes: published

Emergency department overcrowding, mortality and the 4-hour rule in Western Australia.

Geelhoed GC, de Klerk NH Med J Aust 2012 Feb 6;196:122-6.

CONCLUSION:

Introduction of the **4-hour rule in WA led to a reversal of overcrowding in three tertiary hospital EDs that coincided with a significant fall in the overall mortality rate in tertiary hospital data combined and in two of the three individual hospitals**. No reduction in adjusted mortality rates was shown in three secondary hospitals where the improvement in overcrowding was minimal.

However, debate about methodology in correspondence = too early to tell

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Introduction of NEAT

Where it is ***clinically appropriate*** to do so,

after implementation, “anyone presenting to a public hospital emergency department will be

admitted, referred for treatment or discharged within four hours of presentation”

Communique. Council of Australian Governments Meeting 19 and 20 April, Canberra. Available at http://www.coag.gov.au/coag_meeting_outcomes/2010-04-19/docs/communique_20_April_2010.pdf

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Australian Government

National Health Reform

Expert Panel Review of Elective Surgery and Emergency Access Targets under the National Partnership Agreement on Improving Public Hospital Services

Report to the Council of Australian Governments
30 June 2011

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Expert Panel June 2011: Overarching principles

Recommendations broadly intended to:

- Drive whole of system reform
- Improve system capacity
- Promote engagement and leadership
- Minimise risks to patient safety and quality
- Clear and nationally consistent measurement
- Ongoing review

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Expert Panel June 2011: Overarching principles

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Expert Panel recommendations to COAG

August 2011

- *Principle 1* Targets and the changes required to meet them will require **commitment right across the health and hospital system**
- *Principle 2* Hospital **executives will need to work in partnership with clinicians** to achieve sustainable change
- *Principle 3* Clinical engagement and **clinical leadership will be essential** if the targets are to be met
- *Principle 4* Targets must drive clinical redesign with a whole-of-hospital approach
- *Principle 5* **Clinical redesign must ensure patient safety and enhance quality of care**
- *Principle 6* Clinical redesign will improve system capacity and delivery of care
- *Principle 7* Definitions need to be clear and consistent across all jurisdictions
- *Principle 8* The performance of jurisdictions is not comparable
- *Principle 9* Progress towards the targets needs to be linked with **continual monitoring of safety and quality performance indicators and audit**
- *Principle 10* The impact of targets on demand needs to be monitored and early strategies developed to ensure achievements are sustainable
- *Principle 11* Quality of training needs to be maintained

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National Partnership Agreement on Improving Public Hospital Services

Parties agree that the following data, collected under the Performance and Accountability Framework, will be used to measure the impact of the implementation of both NEAT and NEST on the safety and quality of patient care:

- hospital standardised mortality ratio;
- in-hospital mortality rates for selected diagnostic categories;
- unplanned hospital re-admission rates for selected diagnostic categories;
- healthcare associated Staphylococcus aureus bacteraemia;
- healthcare associated Clostridium difficile infection; and
- measures of the patient experience with healt

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National Partnership Agreement: NEAT KPIs

C42. The percentage of ED patients, who either physically leave the ED for admission to hospital, are referred for treatment or are discharged, whose total time in the ED is within four hours, as per Clause C1.

C43. The number, source and percentage of ED attendances which are unplanned re-attendances within 48 hours of previous attendances.

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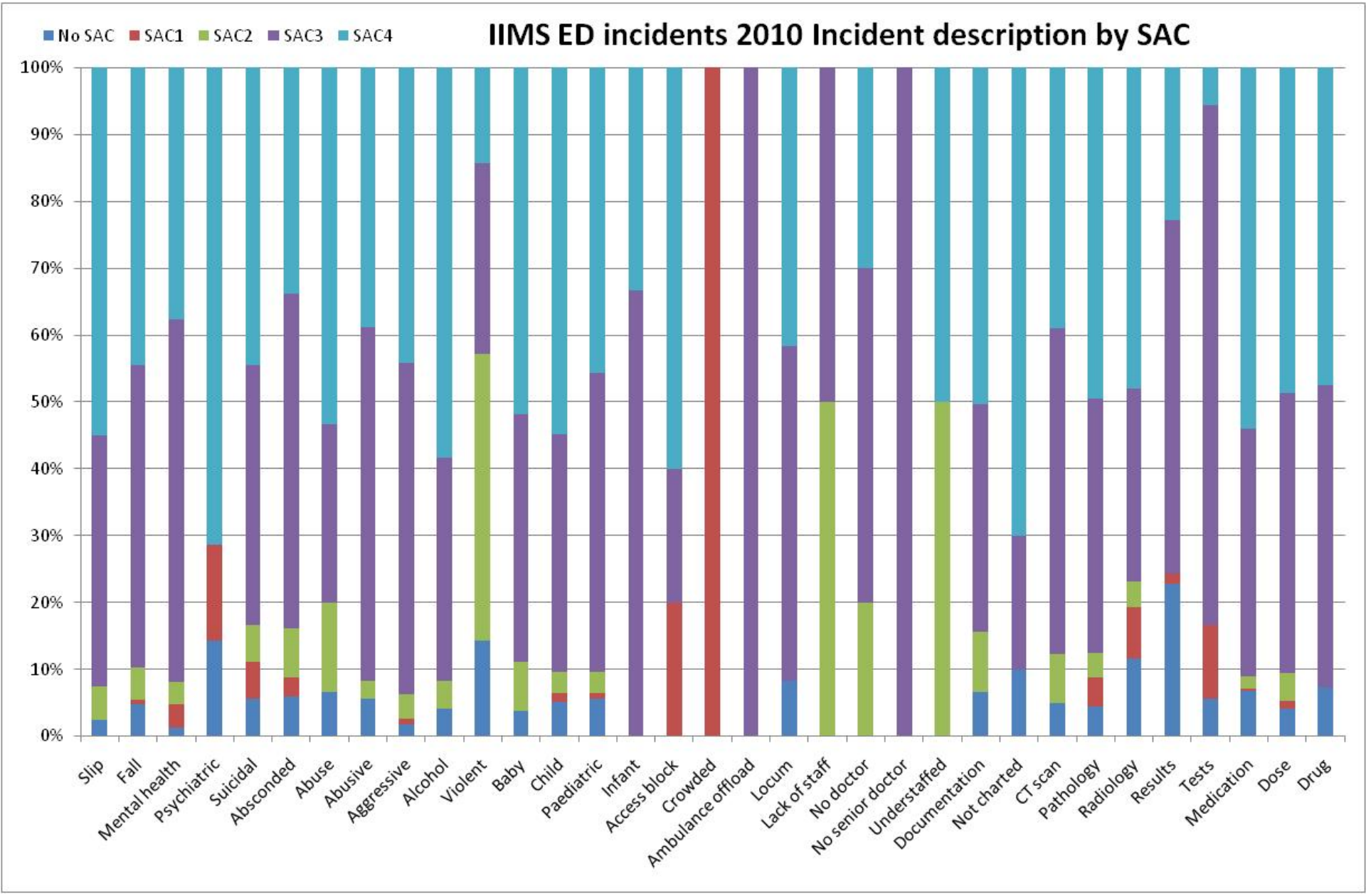
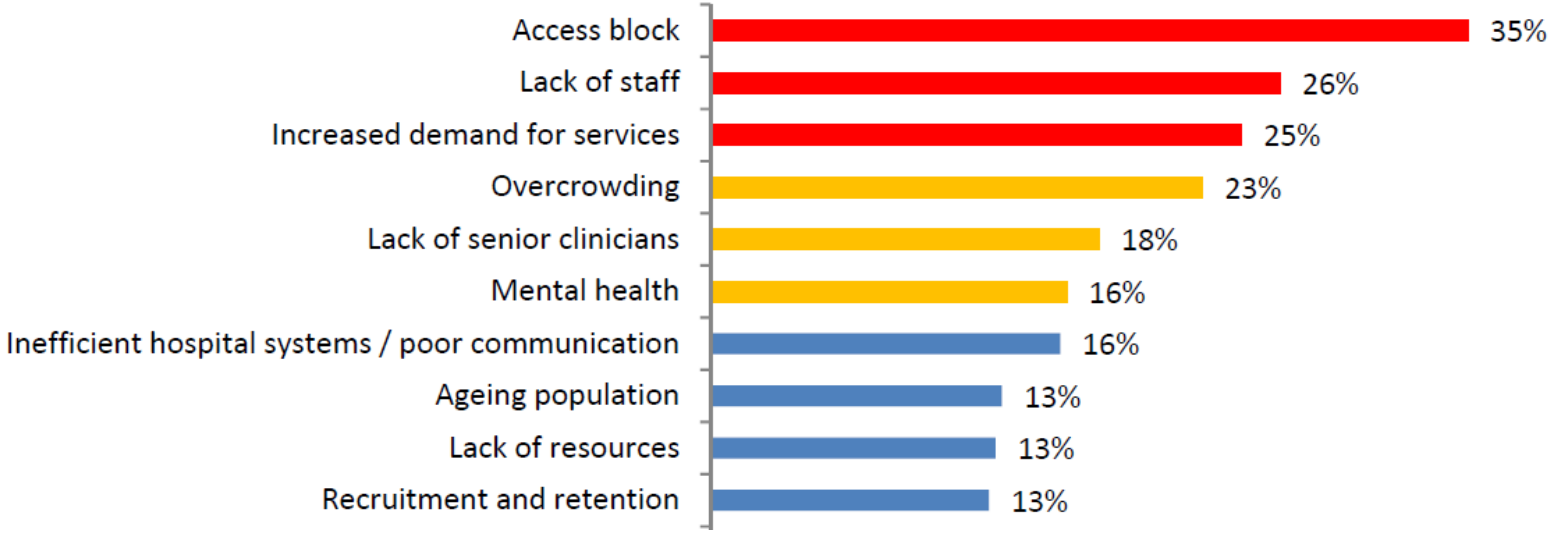
NSW: PRE-NEAT


IIMS ED incidents 2010 Incident description by SAC
No SAC
SAC1
SAC2
SAC3
SAC4
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Slip
Fall
Mental health
Psychiatric
Suicidal
Absconded
Abuse
Abusive
Aggressive
Alcohol
Violent
Baby
Child
Paediatric
Infant
Access block
Crowded
Ambulance offload
Locum
Lack of staff
No doctor
No senior doctor
Understaffed
Documentation
Not charted
CT scan
Pathology
Radiology
Results
Tests
Medication
Dose
Drug

Key issues impacting on EDs

Major current challenges for EDs:

1. **Access block**
2. **Lack of staff**
3. **Increasing demand for services**



Source: NSW Emergency Care Institute Stakeholder Survey 2012

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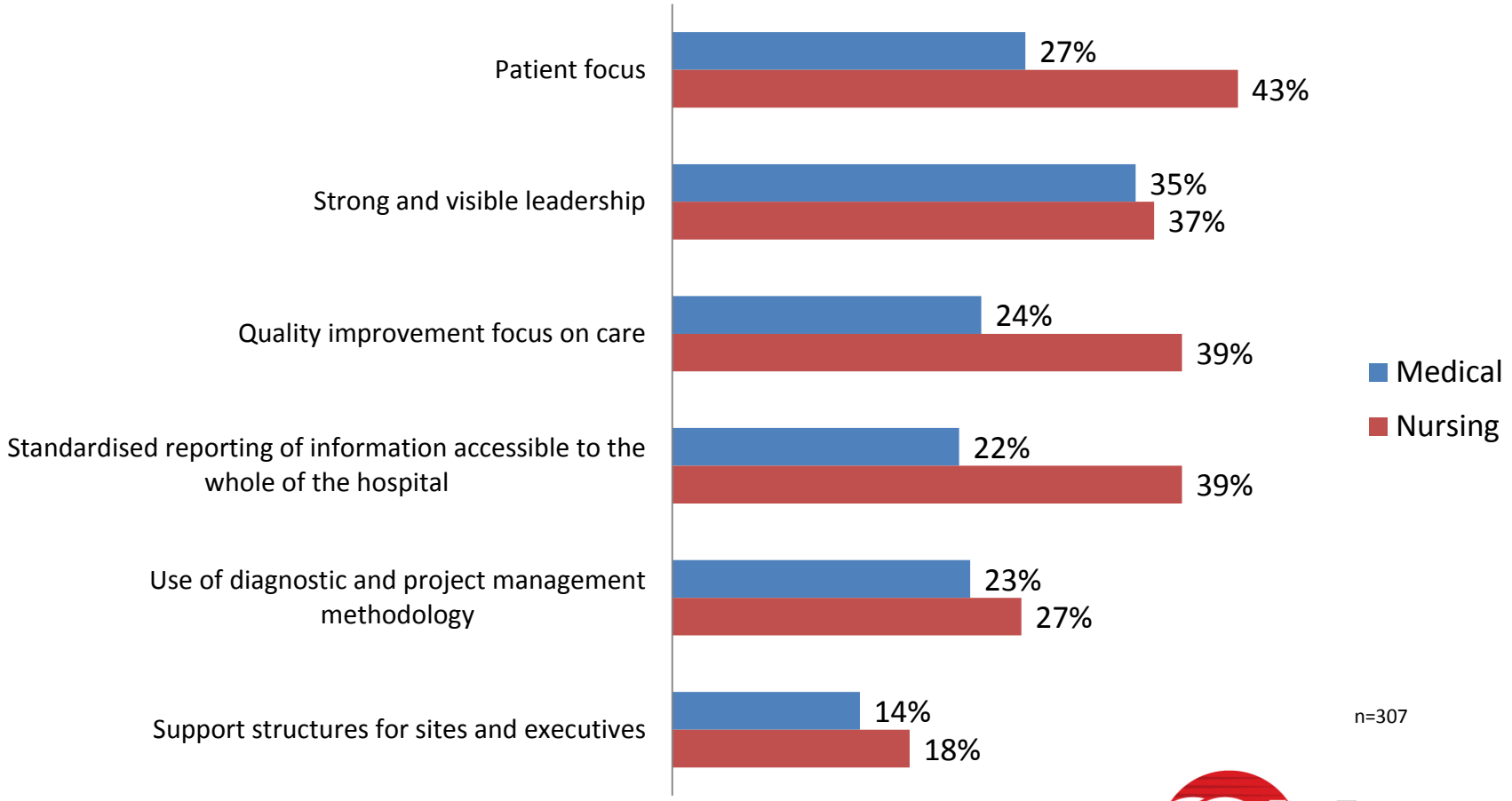
Implementation of NEAT

ECI Stakeholder survey 2012



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QUALITY AND SAFETY

Quality

- Access
- Safety
- Acceptability
- Effectiveness
- Efficiency
- Continuity

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Quality

The care we would like our family to receive

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A new quality focus

Selection and validation of quality indicators for the Shorter Stays in Emergency Departments National Research Project.

Jones P et al. EMA 2012 Jun;24(3):303-12.

Improving timeliness while improving the quality of emergency department care

Lowthian and Cameron EMA 2012 June; 24(3)219–21

NHMRC funded multicentre project in Australia addressing outcomes of introduction of four hour target

International Federation for Emergency Medicine Quality Framework 2012

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Standard 1:
Governance for
Safety and Quality in
Health Service Organisations

Standard 2:
Partnering with Consumers

Standard 3:
Preventing and Controlling
Healthcare Associated Infections

Standard 4:
Medication Safety

Standard 5:
Patient Identification and
Procedure Matching

"The NSQHS Standards focus on areas that are essential to improving patient safety and quality of care"

Standard 6:
Clinical Handover

Standard 7:
Blood and Blood Products

Standard 8:
Preventing and Managing
Pressure Injuries

Standard 9:
Recognising and Responding to
Clinical Deterioration in
Acute Health Care

Standard 10:
Preventing Falls and
Harm from Falls

AUSTRALIANCOMMISSIONON
SAFETYANDQUALITYINHEALTHCARE

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

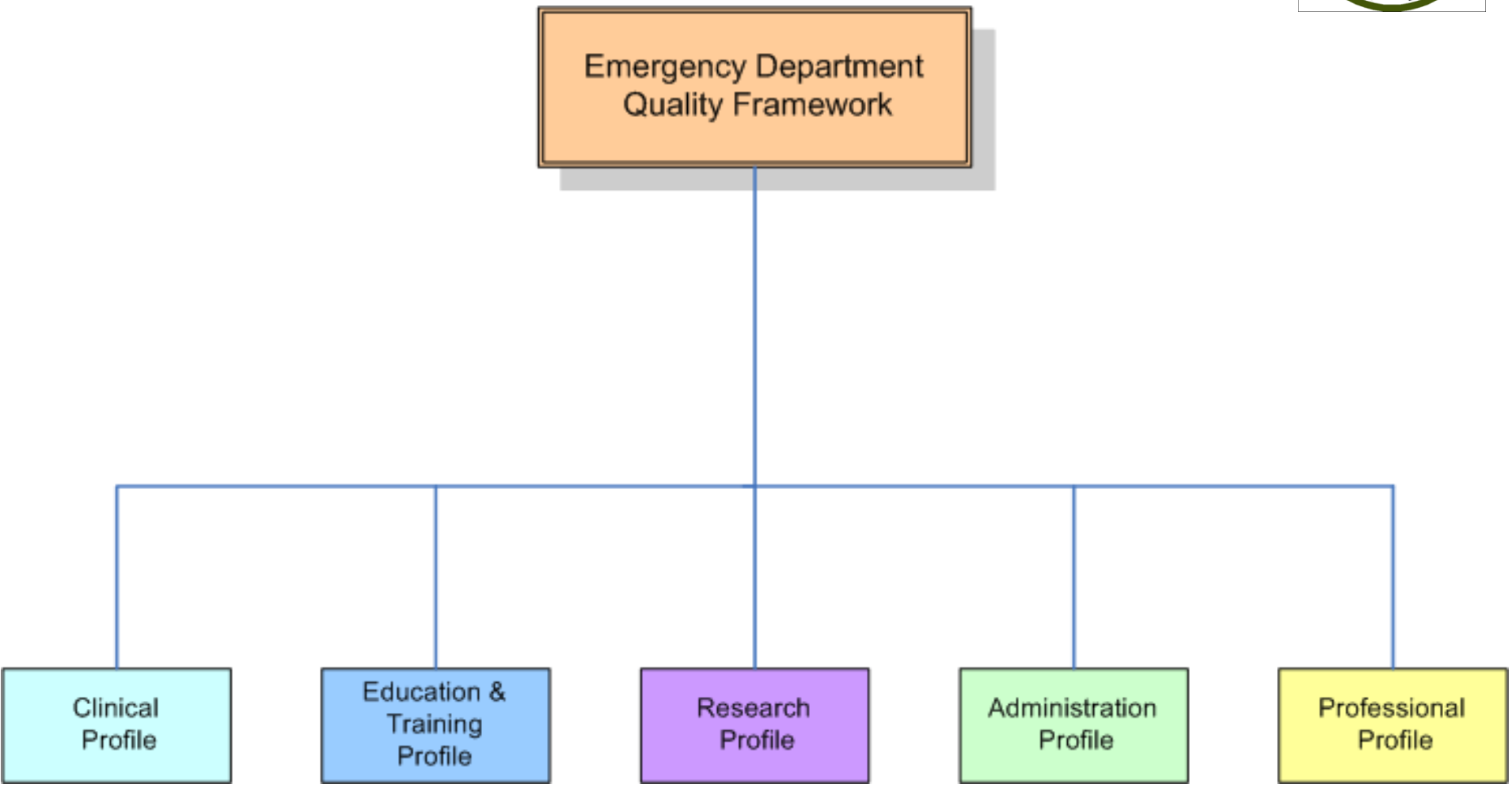
In September 2011, Health Ministers endorsed the NSQHS Standards and a national accreditation scheme.

"The new system will, for the first time, create a national safety and quality accreditation scheme for health service organisations."

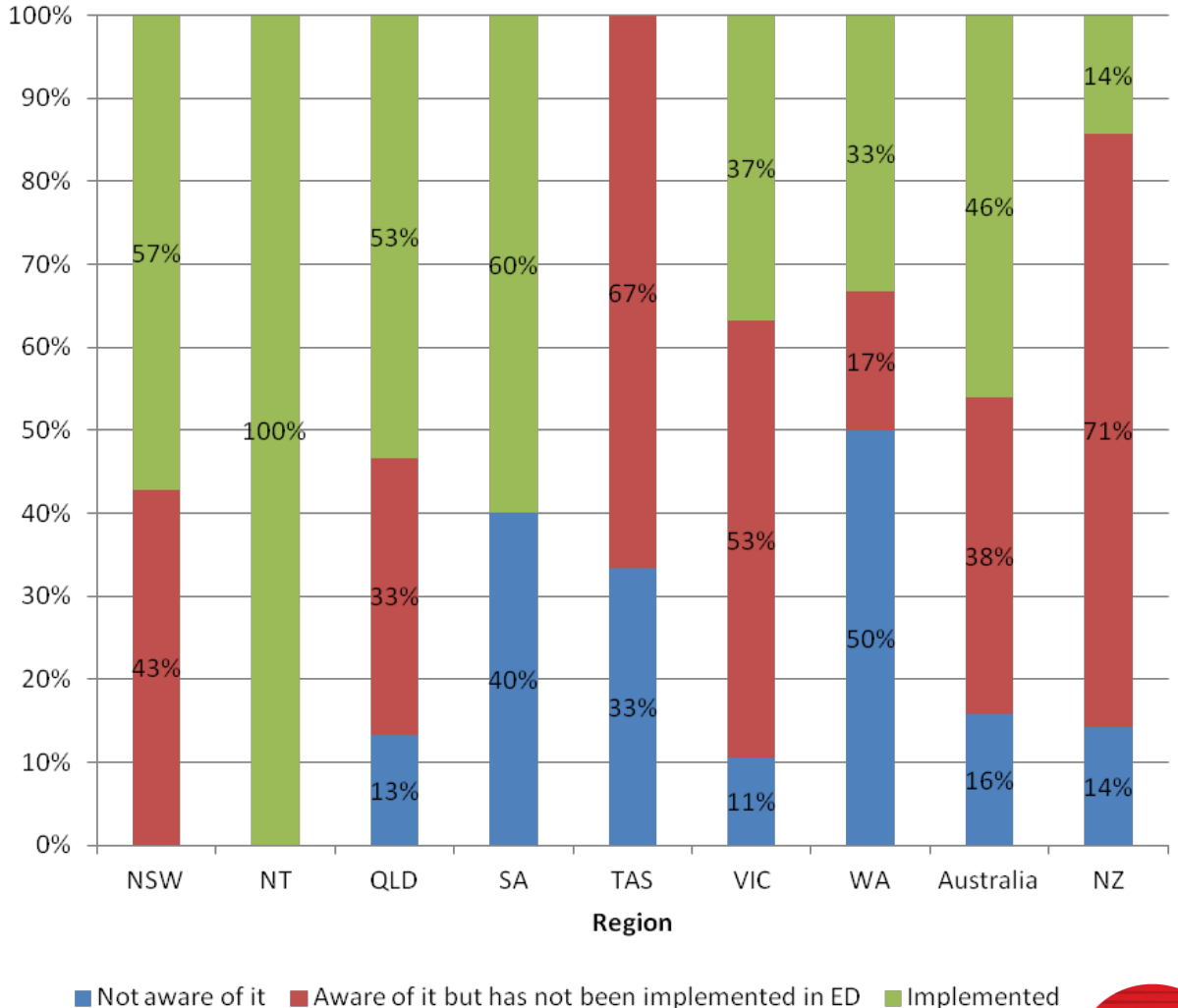
Minimum Requirements for 2013

- Incorporate consumer and carers' feedback into health service publications for distribution to patients
- Training on patient-centred care and the engagement of individuals in their care
- Aseptic technique: training, audit, improvement
- Clinical handover: evaluation and monitoring

NSQHS STANDARDS


Emergency Department Quality Framework
Clinical Profile
Education & Training Profile
Research Profile
Administration Profile
Professional Profile

Survey of ACEM accredited EDs 2012



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Survey of ACEM accredited EDs 2012

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%

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Survey of ACEM accredited EDs 2012

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**	

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POST NEAT ERA: A NEW MANAGEMENT ETHOS?

New management opportunities: eg Lean health care

- Specify the value in terms of medical value to be provided.
- Identify the value stream that is all those steps required to provide medical value for the patients, waste must be eliminated.
- Make the value creating steps flow.
- Let the patient pull the service, in stead of the patient being pushed through the service, often unwanted.
- **Strive for perfection that means constantly considering what is being done and how it is being done and use the expertise and knowledge of all those involved in the processes to improve and change it.**

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Know your process

Background: As central diagnostic facilities, computer tomography (CT) scans appear to be bottlenecks in many patient-care processes. This study describes a case study concerning redesign of a CT scan department in the Academic Medical Center in Amsterdam, the Netherlands.
Purposes: The aim was to decrease access time for the CT-scan and simultaneously increase utilization level.
Methodology/Approach: An important cause of relatively low-capacity utilization is variability in the time needed for the scanning process. We performed a qualitative and quantitative analysis of current processes; identified bottlenecks and selected interventions with the greatest expected reduction of variability in flow time.
Findings: The most promising and most feasible opportunity appeared to be to reallocate the insertion of intravenous access lines to a preparation room. The time needed for this activity was very hard to predict and needed a lot of slack in the lead time for appointments. By removing it from the CT room, lead time could be reduced by 5 minutes. The intervention resulted in a decrease of access time from 21 days to less than 5 days, and an increase of the utilization rate from 44% to 51%. This contributed directly to patient service and indirectly to cost reduction.

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Strategies to enhance productivity

NHS Institute for Innovation and Improvement 2006

"Rational" view

Standardise:
- job roles
- clinical practice
- work processes

Eradicate:
- waste
- non-value adding activities
- unnecessary structures

Focus on:
- doing more with less
- doing it faster, better and cheaper

"Engagement" view

Create:
- high expectations
- clarity of goals
- common purpose
- an enabling environment where people can do their best

Focus on:
- building, maintaining, protecting trust
- making work meaningful and rewarding
- connecting great results with great values

High performance organisations

- Face reality
- Desire to learn from mistakes
- Personal accountability

Keys are leadership, process, strategy

Finkelstein S. Immunity from implosion. Ivey Business Journal Oct 2005

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Critical factors for safety

- Emergency department environment
- Emergency department staffing
- Emergency patients
- Organisational leadership and culture

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Time based targets, safety and quality: Outcomes

- Direct impacts of reducing ED overcrowding
- Significant increase in quality focus
- Major positive changes in leadership and management activity to be successful
- Early positive benefits measured
- Await evaluation research

- Many lessons learned

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Upcoming events

2011 NOVEMBER

MON	TUE	WED	THU	FRI	SAT	SUN
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

4 Australian and New

What's new

Emergency department visits

The ECI believes it is important to meet and talk to staff working in emergency. This list shows what departments and facilities the team have visted or plan to visit by month.
read more

Emergency Care Symposium

On the 4 November 2011, the ECI will be hosting the inaugural NSW Emergency Symposium that will feature the launch of the ECI. The Hon Jillian Skinner (Minister

Useful links

NSW Emergency Care Symposium

4 November 2011

Registrations close on Friday 14 October 2011. Flights for rural atendees paid for by ECI. Don't miss out!

LEARN MORE »

Feedback