Timely Emergency Care Collaborative

You are the cavalry

Department of Health, Victoria and
The Institute for Healthcare Improvement

OFFICIAL

OFFICIAL

Declaration of interest

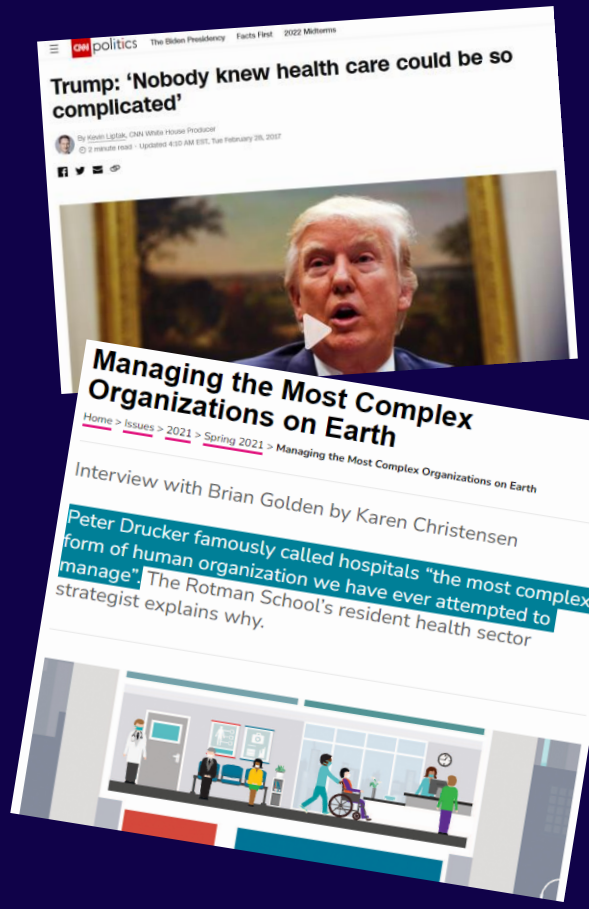
- Shane Robertson is employed by the Department of Health and has no conflicts of interest to declare.
- Jon Scott is contracted by the Institute for Healthcare Improvement to provide expertise. He has been paid for his time to present at the forum.
- Stephanie Easthope* is employed by the Institute for Healthcare Improvement and has no conflicts of interest to declare.

**Stephanie Easthope is an apology today. We acknowledge her expertise, thought leadership and extensive contributions in shaping this project and presentation.*

Acknowledgement of Country

Improving hospital flow... is hard

Complex systems + Complex problems = Complex challenges



The Age

'The worst I have seen': Hospital ramping costs paramedics 120 years worth of shifts

Key points ... Paramedics have spent a cumulative 120 years waiting for sick or injured patients to be admitted to overcrowded hospitals in the...

1 month ago

Herald Sun

Ambulance Victoria fails to meet targets as health system woes continue

Ambulance Victoria is failing to meet its key target of getting to priority code-one callouts within its 15-minute benchmark, as ramping...

4 Aug 2023

The Age

These paramedics are itching to work. The worst part of their job is sitting around

New data has exposed the severity of Victoria's ambulance crisis as hospital ramping costs paramedics 120 years of shifts. Read the full story...

1 month ago

3AW

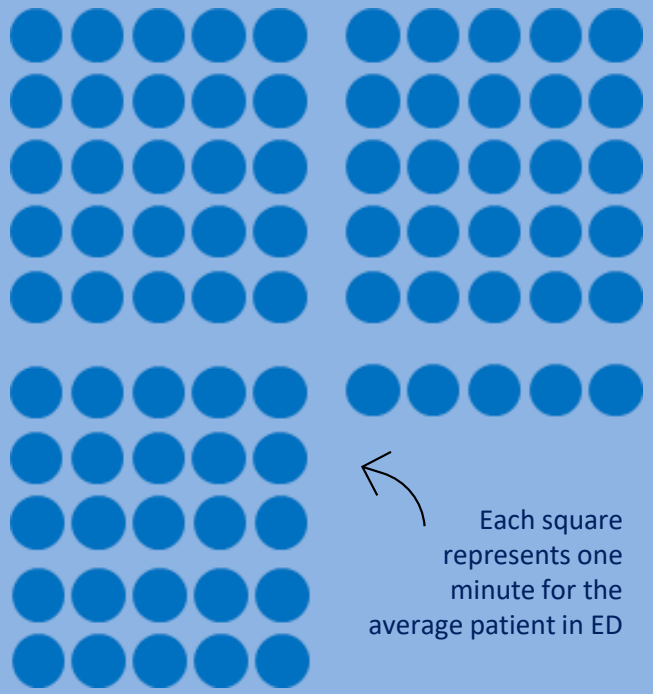
Ambulance Victoria facing 'challenging' ramping issue

Ambulance Victoria facing 'challenging' ramping issue ... Ambulance transfer times are double what they should be, with the average patient...

1 month ago

The situation

Post COVID, patients are spending longer in emergency departments…



Each square represents one minute for the average patient in ED

…but just looking to the usual suspects doesn't reveal obvious solutions.

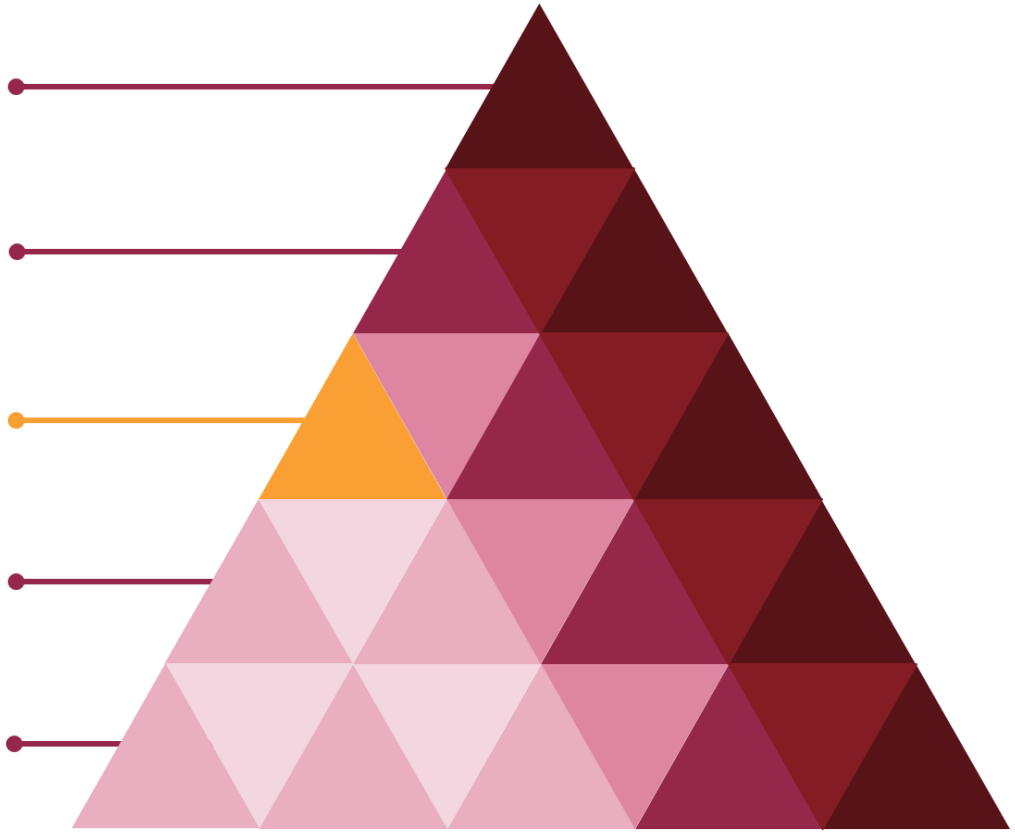
Time spent in ED has grown across the state
Average length of stay (LOS) has increased by as much as 68% in rural Victoria and 67% in metro areas. Median increase statewide is 33%.

Patients are staying on average 80 minutes longer in ED than before COVID
Average LOS has increased from 236 minutes to 316 minutes between 2018 and 2022.

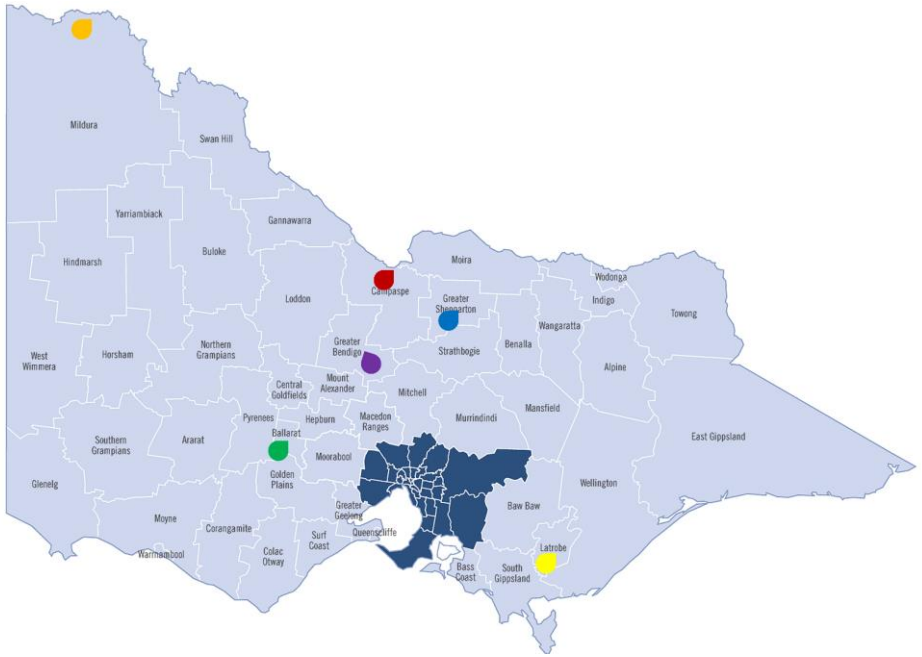
Only 7% (or 6 minutes) of this is due to expected factors
More people presenting, bed block and higher urgency patients only explain 7% of the deterioration in performance seen now compared to 2019.

93% of the variation remains unexplained
Changes in patient complexity (particularly for COVID patients), and workforce challenges could explain some but not all of the variation.

Victoria is not alone
Similar deteriorations in performance have been seen in NSW, QLD and in the NHS



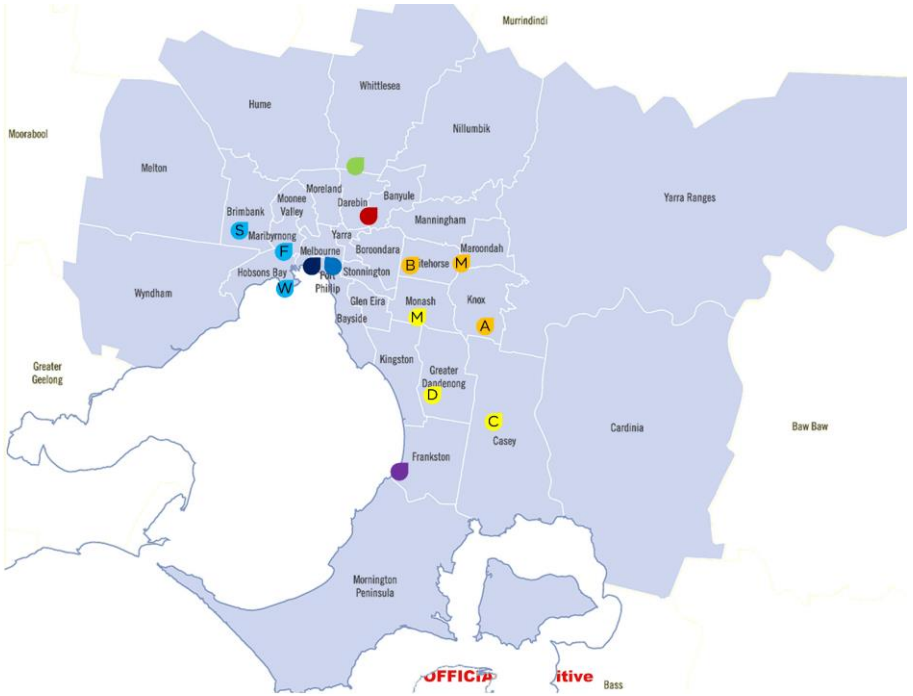
An overview of TECC



14 health services
9 metropolitan hospitals
6 regional hospitals

+

Ambulance Victoria



Learning Session 1
Dec 2022

- Establish governance
- Undertake diagnostics
- Improve daily operational meetings

Learning Session 2
Feb 2023

- Change theory established
- **Workstreams launched**

Learning Session 3
May 2023

Learning Session 4
Aug 2023

- Share and learn from each other
- Reinforce change theory
- Improvement science learning

Learning Session 5
Nov 2023

TODAY

Learning Session 6
Mar 2024

Wrap up event
June 2024

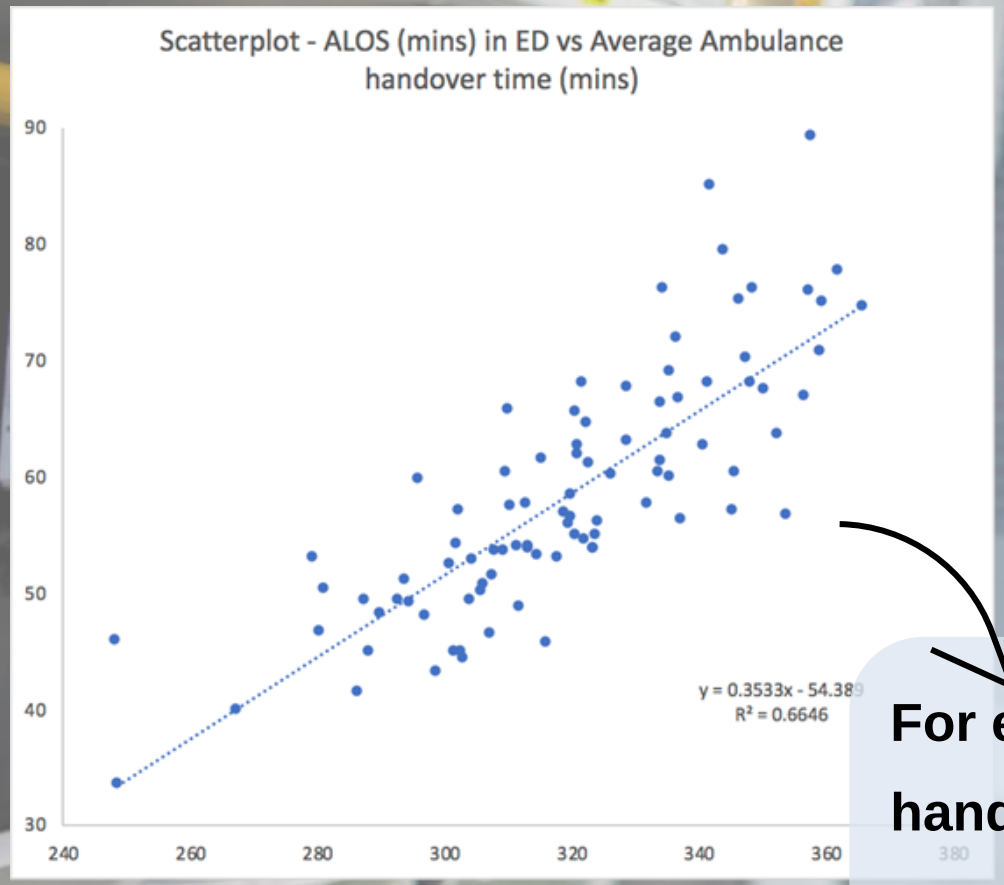
The Timely Emergency Care Collaborative Aim

“By improving system wide patient flow, we'll provide more timely emergency care to Victorians.”

By 30 June 2024, we aim to reduce the length of stay in participating hospital Emergency Departments by:

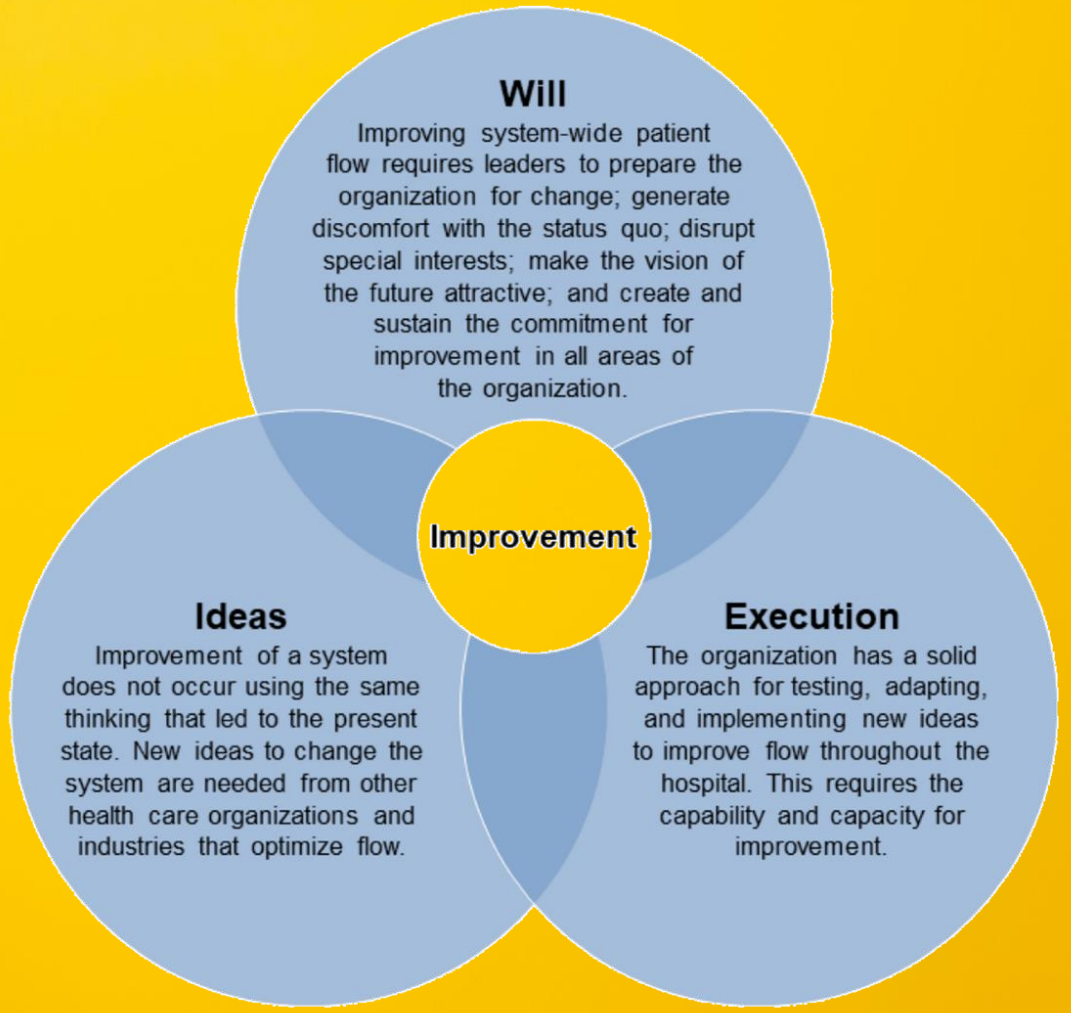
- 15% for non-admitted patients, and
- 20% for admitted patients.

What impact would this have on ambulance availability to respond to patients?



For every ~3 minutes increase in ED LOS the ambulance handover time is increased by 1 minute.

Reducing the ED LOS by 50 minutes (the approximate improvement across both admitted and non-admitted) would allow ambulances to be back on the road to people with medical emergencies more than **15 minutes sooner.**


Will
Improving system-wide patient flow requires leaders to prepare the organization for change; generate discomfort with the status quo; disrupt special interests; make the vision of the future attractive; and create and sustain the commitment for improvement in all areas of the organization.
Improvement
Ideas
Improvement of a system does not occur using the same thinking that led to the present state. New ideas to change the system are needed from other health care organizations and industries that optimize flow.
Execution
The organization has a solid approach for testing, adapting, and implementing new ideas to improve flow throughout the hospital. This requires the capability and capacity for improvement.

Key challenges and questions we faced

Beginning

Emerging

Engagement

How do you engage a tired and skeptical workforce?

Pragmatism

How do you develop a simple but impactful change theory for a complex challenge?

Variation

What differentiates organisations that are improving from those that aren't?

Spread

How do you recreate the conditions for success?

Creating engagement

Jon Scott
Institute for Healthcare Improvement
Timely Emergency Care Collaborative

VICTORIA State Government

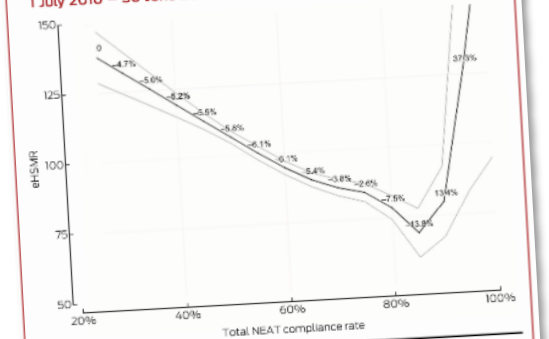
Institute for Healthcare Improvement

Building the Will

Engagement in recognising the situation and exposing normalisation

Clinical studies show that harm happens when flows stops

1 Total National Emergency Access Targets (NEAT) compliance and hospital standardised mortality ratio for patients admitted from emergency departments (eHSMR) for 59 Australian hospitals, 1 July 2010 – 30 June 2014



$P < 0.001$ for regression (F-test). Pale lines, 95% confidence intervals; graph labels, change in eHSMR per five percentage point change in NEAT. ◆

ABSTRACT

Objective: To examine the association between emergency department length of stay (EDLOS) and inpatient length of stay (IPLOS).

Design: Retrospective review of presentations and admissions data.

Setting: Three metropolitan hospitals in Melbourne, 1 July 2000 to 30 June 2001.

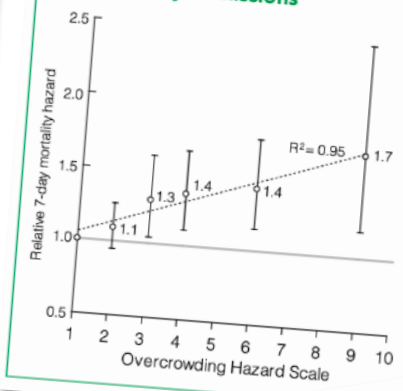
Main outcome measures: Mean IPLOS for four categories of EDLOS (≤ 4 hours, 4–8 hours, 8–12 hours, >12 hours); excess IPLOS, defined as IPLOS exceeding state average length of stay; odds ratios for excess IPLOS adjusted for age, sex and time of presentation.

Results: 17 954 admissions were included. Mean IPLOS for the four categories of EDLOS were ≤ 4 hours, 3.73 days; 4–8 hours, 5.65 days; 8–12 hours, 6.60 days; > 12 hours, 7.20 days ($P < 0.001$). The corresponding excess IPLOS were 0.39, 1.30, 1.96 and 2.35 days ($P < 0.001$). Compared with EDLOS 4–8 hours, odds ratios (95% CIs) for excess IPLOS associated with the other three categories of EDLOS were ≤ 4 hour, 0.68 (0.63–0.74); 8–12 hours, 1.20 (1.10–1.30); and > 12 hours, 1.49 (1.36–1.63), after adjusting for elderly status, sex and time of ED presentation.

Conclusion: EDLOS correlates strongly with IPLOS, and predicts whether IPLOS exceeds the state benchmark for the relevant diagnosis-related group, independently of elderly status, sex and time of presentation to ED. Strategies to reduce EDLOS (including countering access block) may significantly reduce healthcare expenditure and patient morbidity.

MJA 2003; 179: 524–526

4 Relationship between the Overcrowding Hazard Scale and the 7-day mortality hazard for emergency admissions



Emergency department overcrowding, mortality and the 4-hour rule in Western Australia; **Gary C Geelhoed** FRACP, FACEM, MD, Director,1and Professor, **Nicholas H de M** PhD, Head of Biostatistics and Bioinformatics3,4

The association between hospital overcrowding and mortality patients admitted via Western Australian emergency departm **C Sprivulis, Julie-Ann Da Silva, Ian G Jacobs, Amanda RL Fraz George A Jelinek**

Myths versus facts in emergency department overcrowding and access block; **Drew B Richardson and David Mountain**

Emergency department length of stay independently predicts ex inpatient length of stay; **Don Liew, Danny Liew and Marcus P Kenn**

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.

ABSTRACT

- Overcrowding occurs when emergency department (ED) function is impeded, primarily by overwhelming of ED staff resources and physical capacity by excessive numbers of patients needing or receiving care. Access block occurs when there is excessive delay in access to appropriate inpatient beds (> 8 hours total time in the ED).
- Access block for admitted patients is the principal cause of overcrowding, and is mainly the result of a systemic lack of capacity throughout health systems, and not of inappropriate presentations by patients who should have attended a general practitioner. Overcrowding is most strongly associated with excessive numbers of admitted patients being kept in the ED.
- Excessive numbers of admitted patients in the ED are associated with diminished quality of care and poor patient outcomes. These include (but are not limited to) adverse events, errors, delayed time-critical care, increased morbidity and excess deaths (estimated as at least 1500 per annum in Australia).
- There is no evidence that telephone advice lines or collocated after-hours GP services assist in reducing ED workloads.
- Changes to ED structure and function do not address the underlying causes or major adverse effects of overcrowding. They are also rapidly overwhelmed by increasing access block.
- The causes of overcrowding, and hence the solutions, lie outside the ED. Solutions will mainly be found in managing hospital bedstock and systemic capacity (including the use of step-down and community resources) so that appropriate inpatient beds remain available for acutely sick patients.

MJA 2009; 190: 369–374

Working in a chaotic environment

Working hard is expected in most employments

Stress and demoralisation occur when hard work gives no satisfaction

According to 2015 data from McKinsey and Company, 70% of change programs fail to achieve their goals — in most cases because of employee resistance and a lack of support from management.

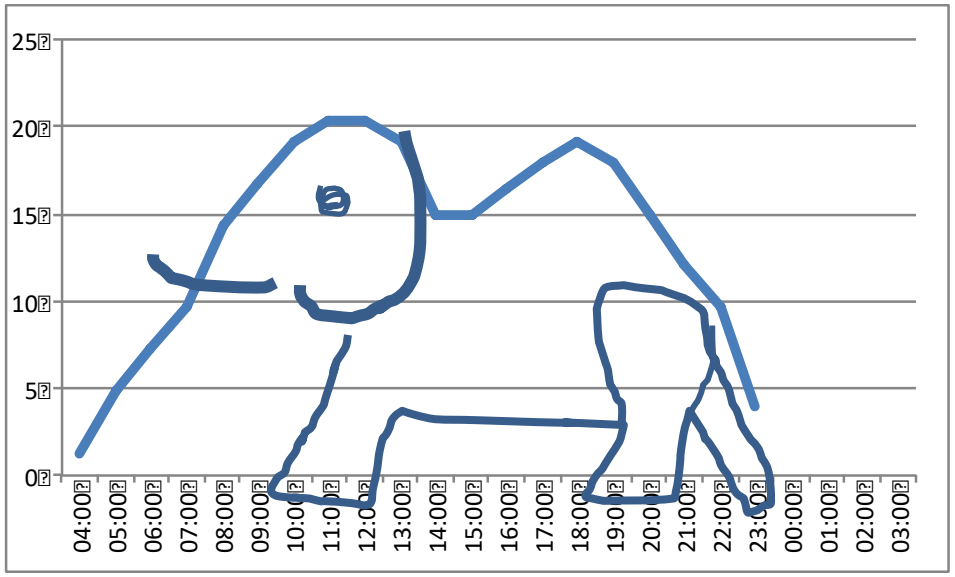
In his book *The 7 Habits of Highly Effective People*, Stephen Covey writes about the idea of the emotional bank account. Just as we make deposits into and withdrawals from our financial bank account, we do the same with our emotional bank account.

What Is a Chaotic Work Environment? Ben Brearley BSc. BCM MBA DipProfCoaching
A chaotic work environment has the following characteristics:
•**Reactivity:** People frequently "drop everything" when an urgent request comes in. The person who shouts loudest, wins.
•**Constant busyness:** People often use language that suggests they are busy, all day, every day. Being too busy is a badge of honour. Being strategic or planning isn't considered valuable. Not being busy *enough* is seen as a sign of laziness or as a lack of commitment.
•**Lack of improvement:** People are so focused on urgent tasks; they fail to look to the future. Improvements are rare, because people are simply focused on today's task list. They'll worry about tomorrow later. This keeps people stuck in the status quo.

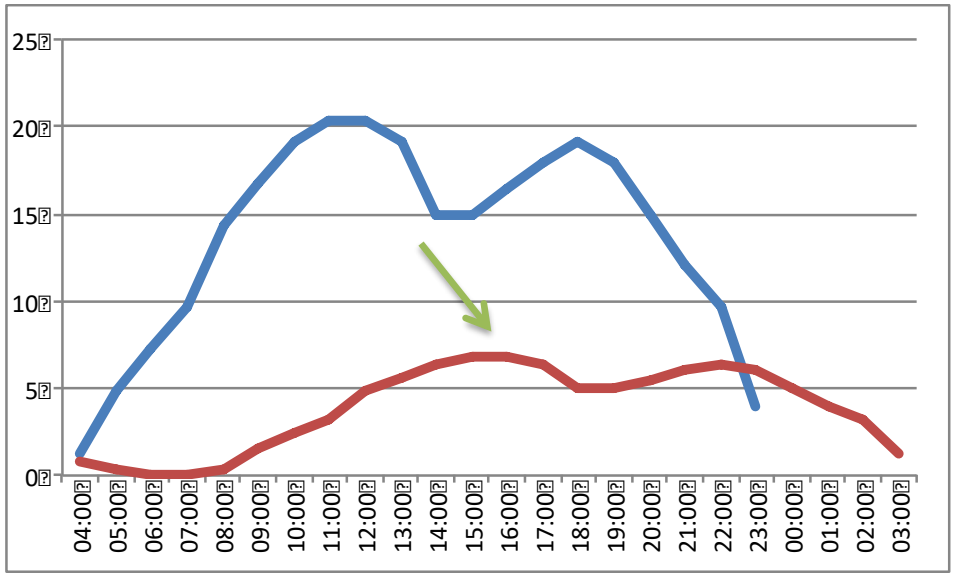

Creating safer, calmer care

Emergency Department

Admissions



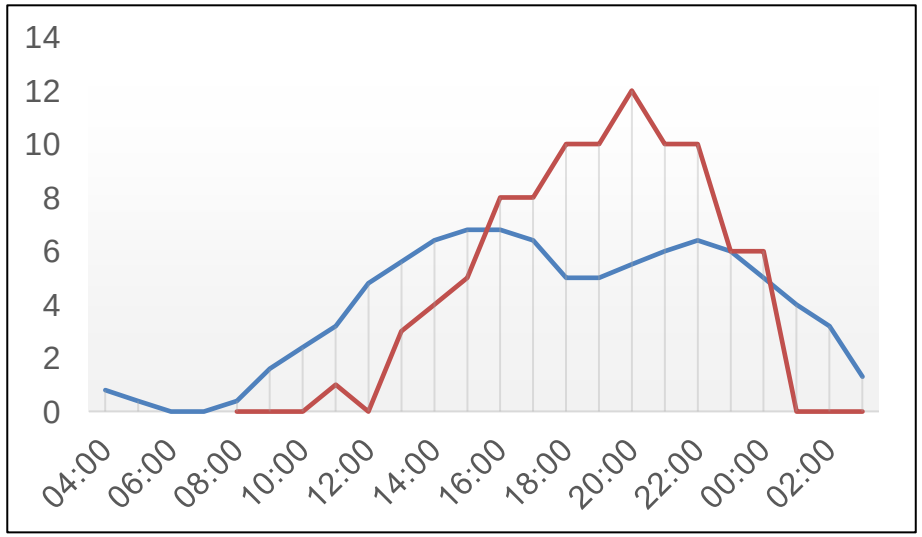
Typical ED attendance profile by hour



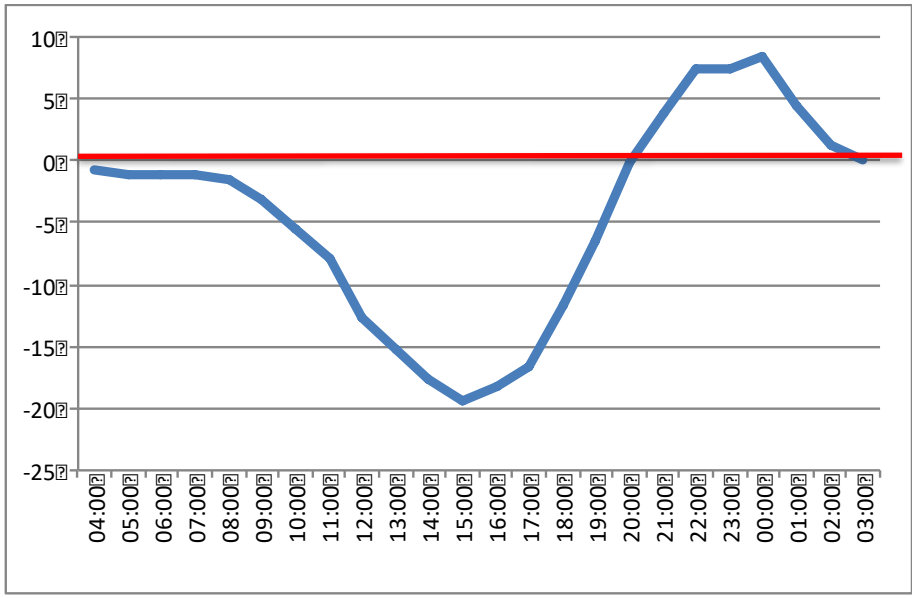
Admissions are typically 4 hours later and about 30-40% of admissions

Emergency Departments

Discharges



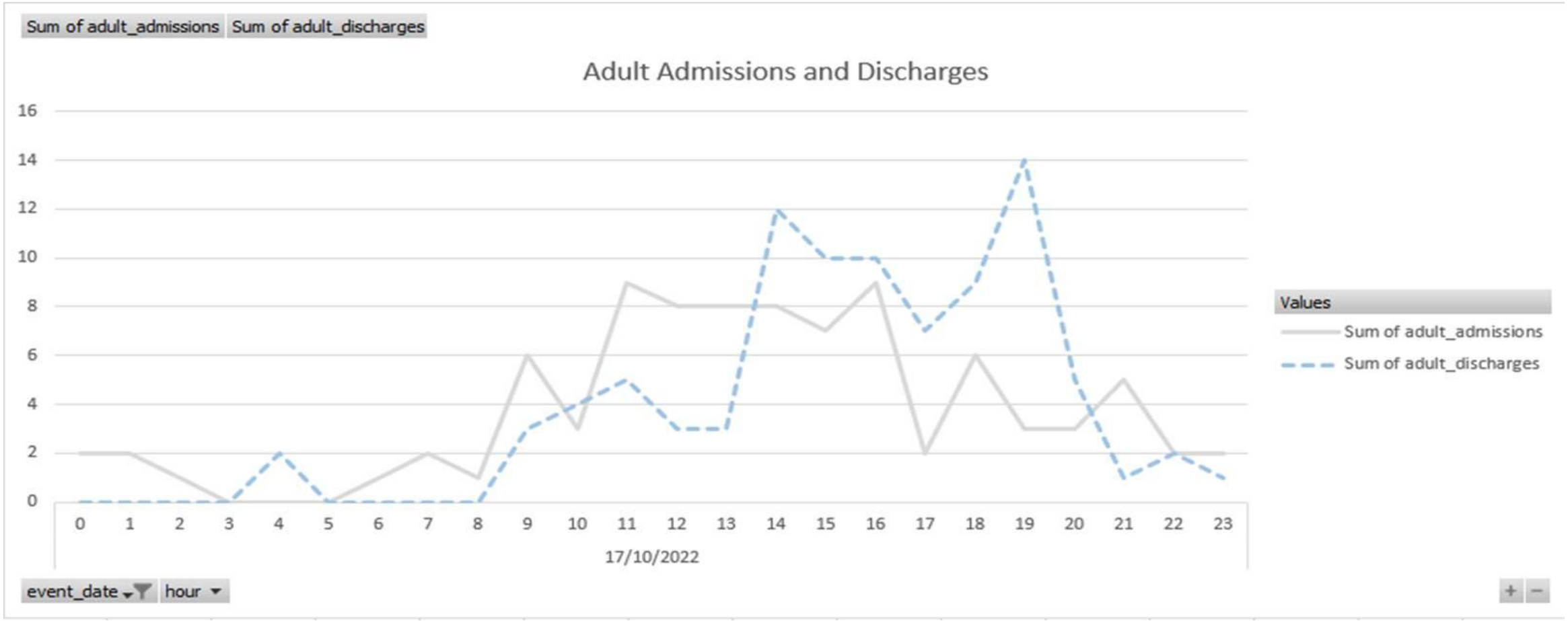
Discharges start after the first Ward rounds are complete and peak in the evenings



Cumulative bed deficit plays out throughout the day

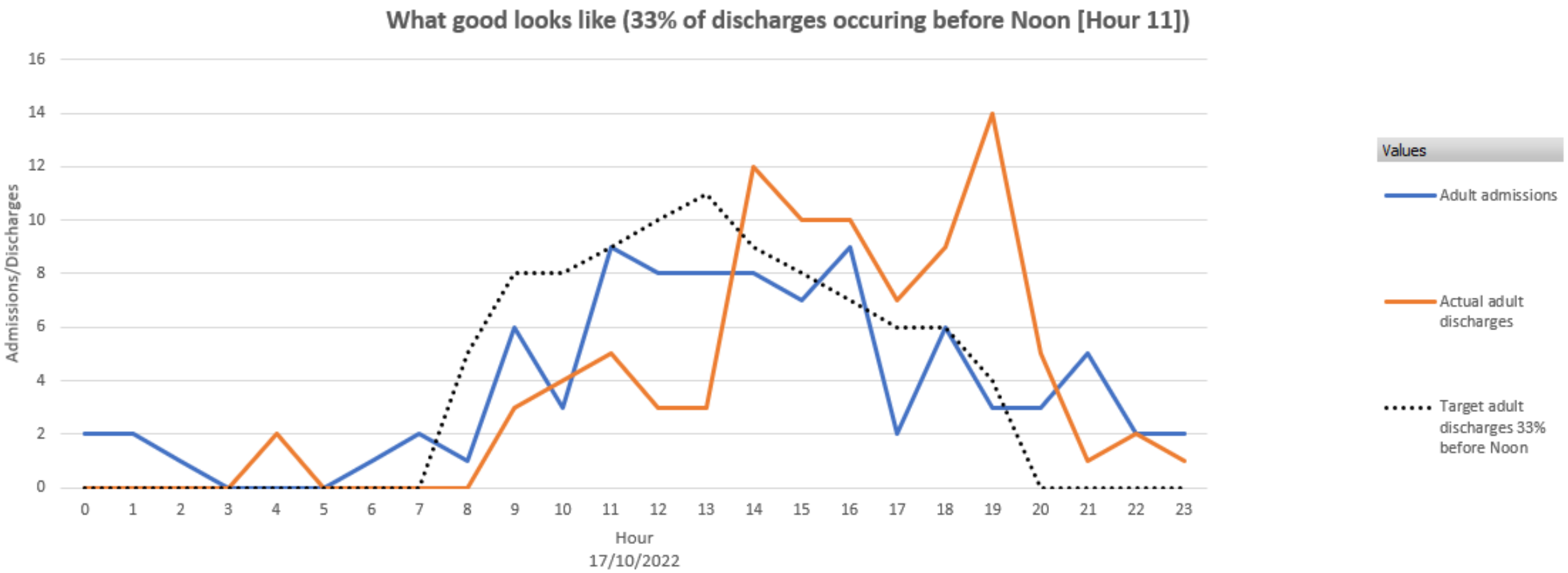
Emergency Departments

Discharges



RCP/RCN Modern Ward Rounds

Impact



Consequences

Patients placed in the next available bed

Outliers in wrong ward and Specialty

Boarding

Additional patients on a ward without a bed

Increase LOS

Patients seen less frequently and cared for by staff trained in different specialties

Increased staff frustration and lost time

Safari ward rounds, stretching staff resources, lack of control

Poor care

Failed performance

The common cause

Health organisations in distress point to factors which impact their performance.

These are commonly:

- Rising demand
- Falling external capacity
- Lack of system interaction and response
- Infection outbreaks
- Contractual issues

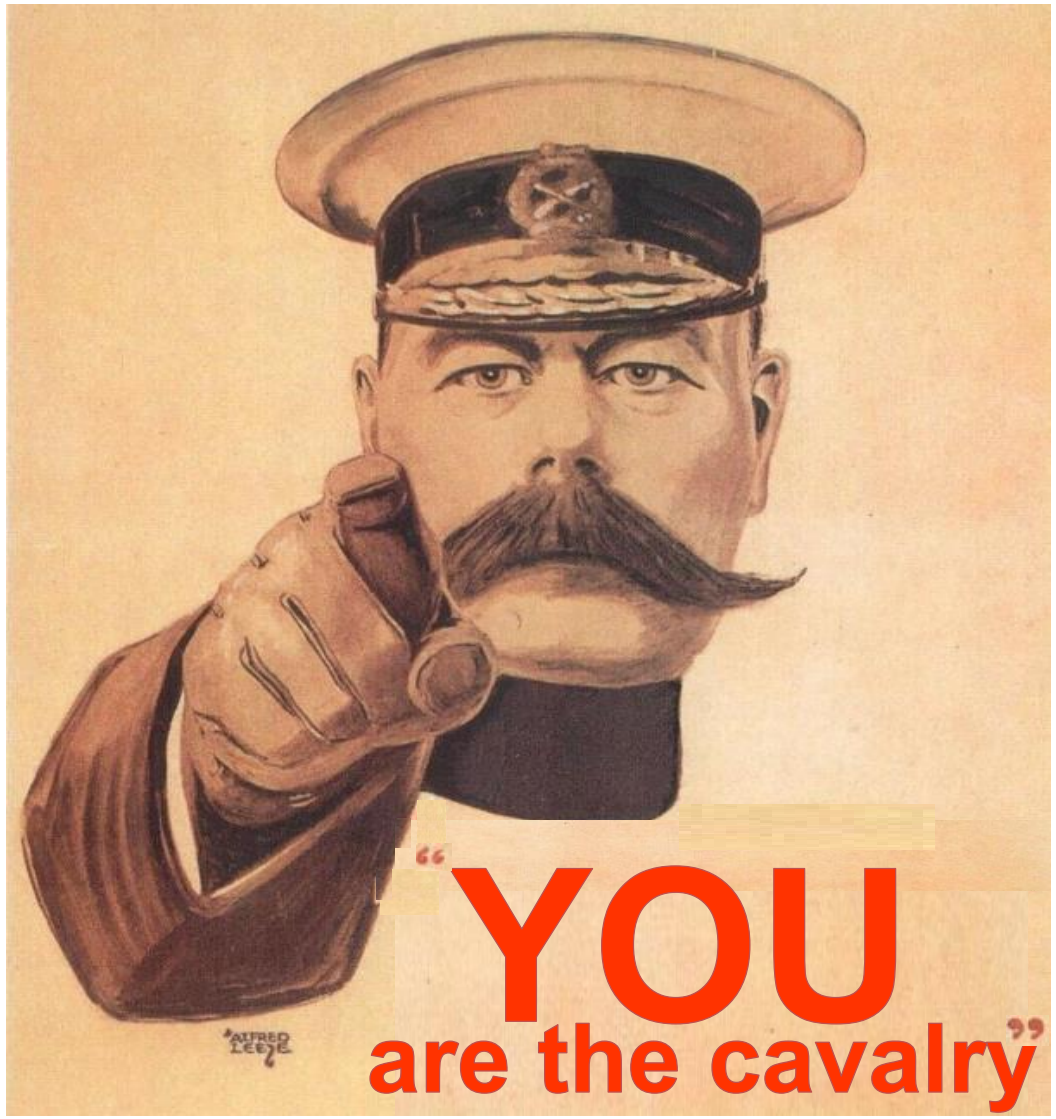
Where is the cavalry?

What about in Victoria?

Patients are staying on average 80 minutes longer in ED than before COVID

Only **7%** (or 6 minutes) of this is due to expected factors (e.g., demand, acuity)

93% of the variation remains unexplained


ALFRED LEETE
"YOU
are the cavalry"

Engaging the healthcare workforce in the purpose

People rarely respond to imposed targets or continued robust management without a clear rationale that links to patient care and personal benefits.

Creating a system which allows staff to do the role they have been trained for requires an elimination of the chaos and ‘in the moment’ reactive management styles.

A system focused on abstract goals which are unconnected to the primary reason why people work in healthcare is unlikely to succeed.

Safe and calm is the goal

Safe. Right care in the right place at the right time means:

- Your doctors and nurses are experts in your needs
- Your care makes sense and is consistent
- Staff know what you need and why you need it

Calm. Right care in the right place at the right time means:

- Staff working inside their skills and training portfolios
- Patients moved for their care pathway reasons
- Clinical plans can be executed

Developing the change theory

Shane Robertson
Department of Health
Timely Emergency Care Collaborative

VICTORIA State Government

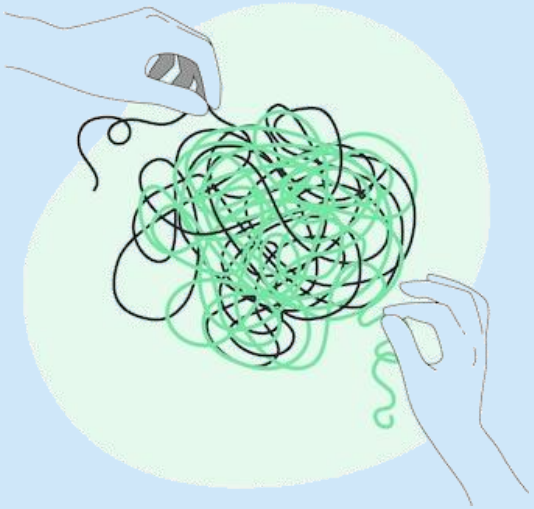
Institute *for* Healthcare Improvement

Patient flow: A shared system challenge

IF ...we improve system-wide patient flow

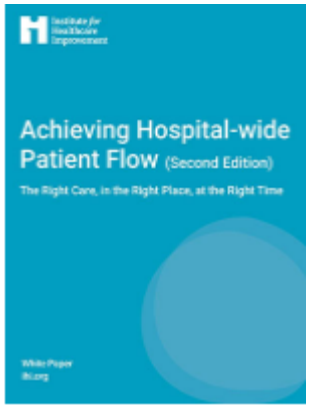
THEN ...we will reduce the capacity pressure on our emergency departments and delays for our ambulances

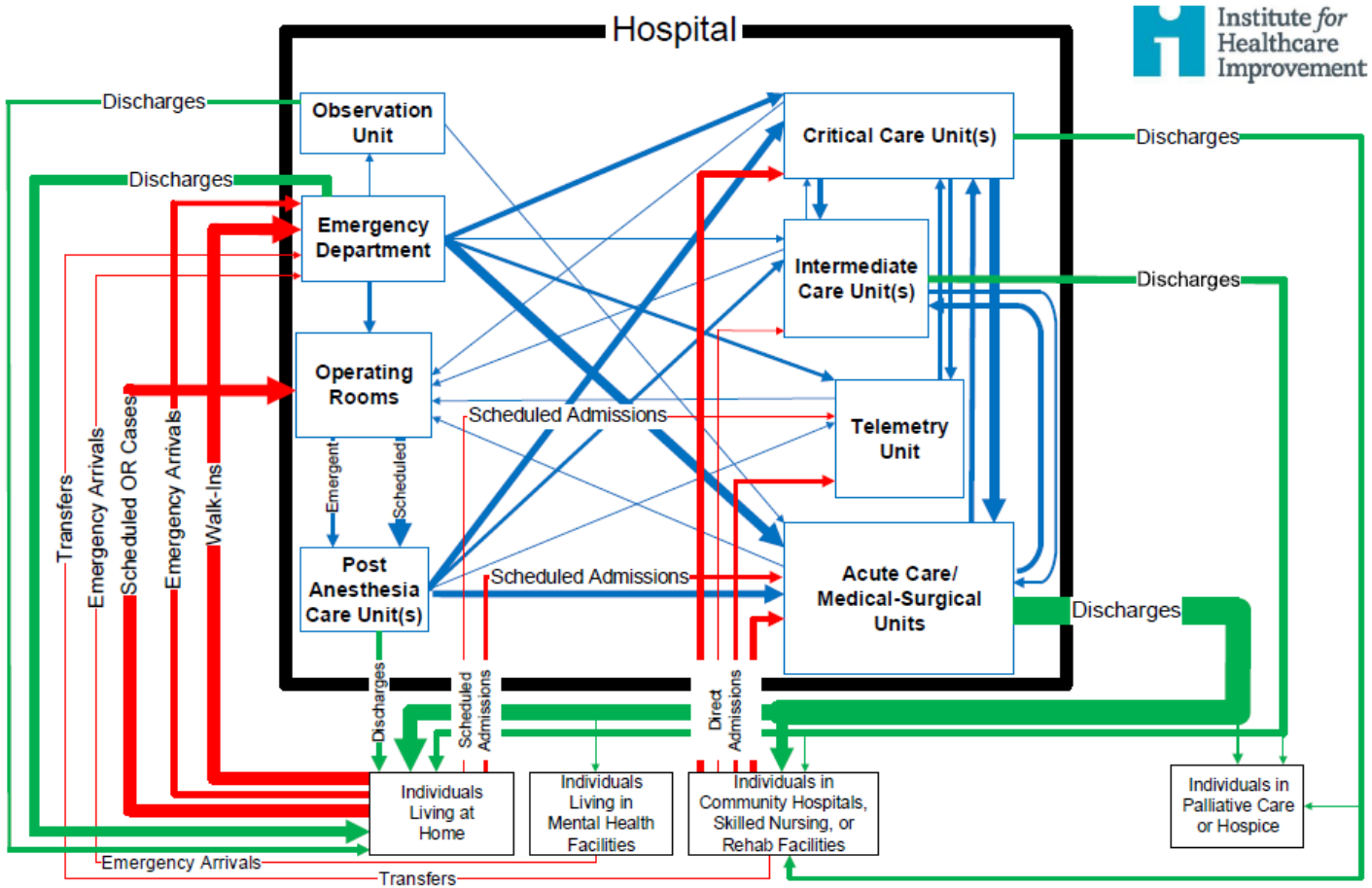
SO THAT ...staff will be able to work in a **calm** environment
...and patients will receive **safe** and timely emergency care.



IHI White Paper

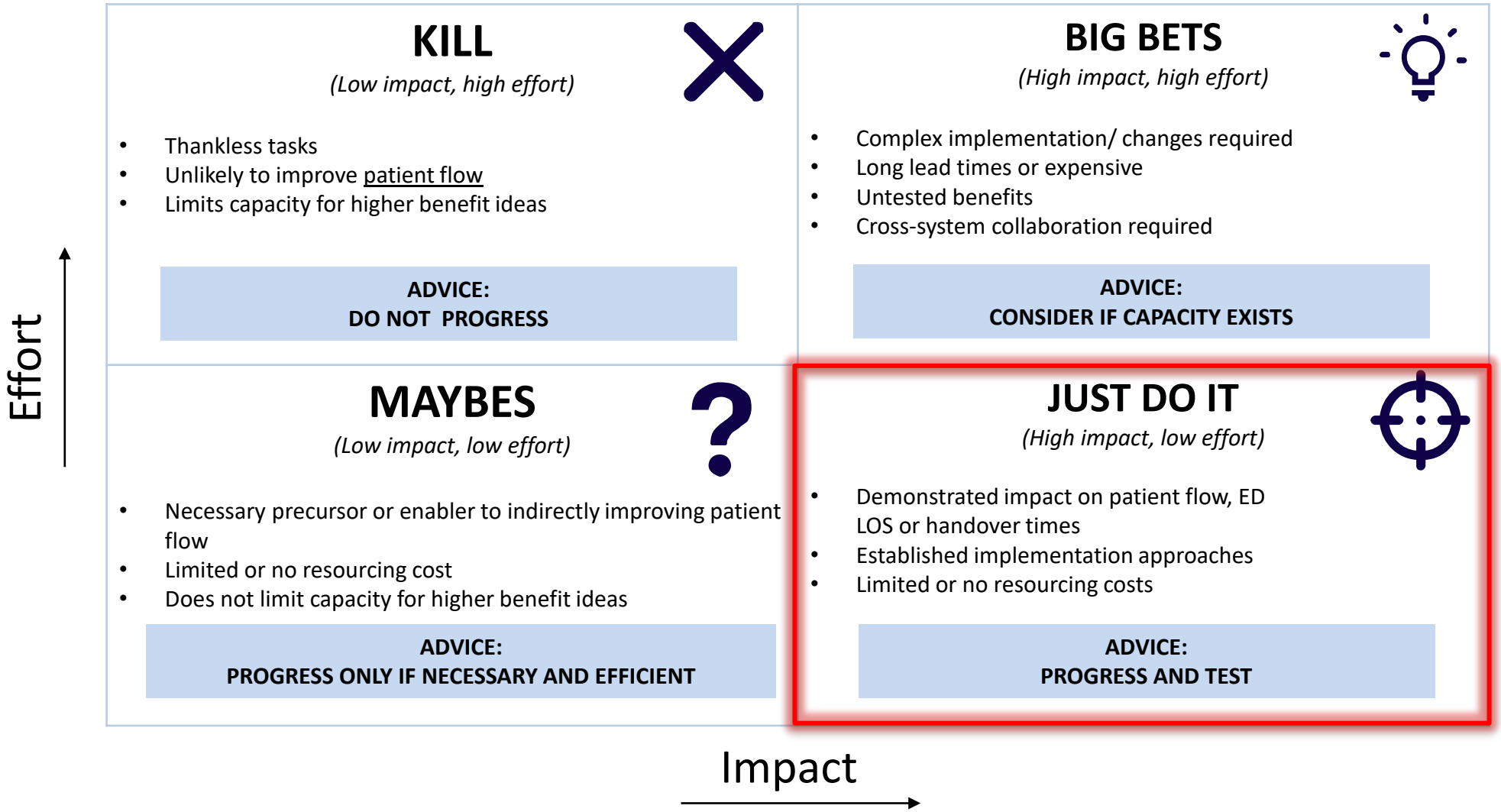
Achieving Hospital Flow





Key: Blue arrows: Flow within hospital | Red arrows: Flow into hospital | Green arrows: Flow out of hospital | **Width of arrows:** Typical flow volumes

Prioritising efforts within health service control



Focusing on creating flow – 10 prioritised collaborative ideas

Operations Management

- Use of data to predict demand and discharges
- Daily Operating System (Huddle structures)
- Action-focused bed meetings

Emergency Department

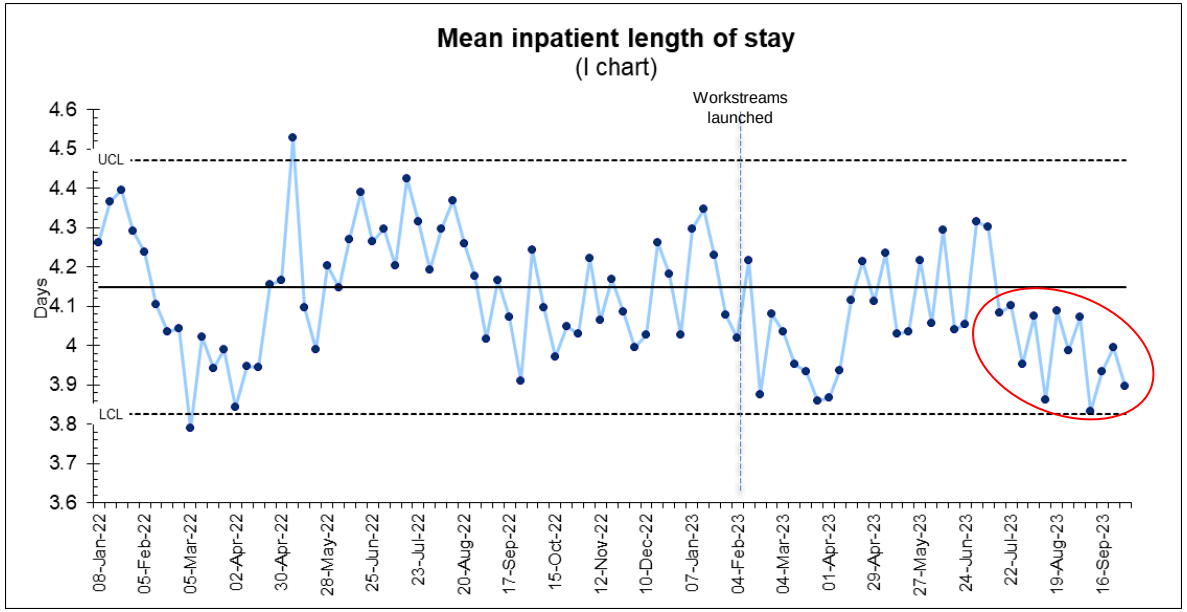
- Early senior clinical review and streaming in the ED
- Protect and optimise fast track / ambulatory care in ED
- Protect and optimise use of ED short stay units

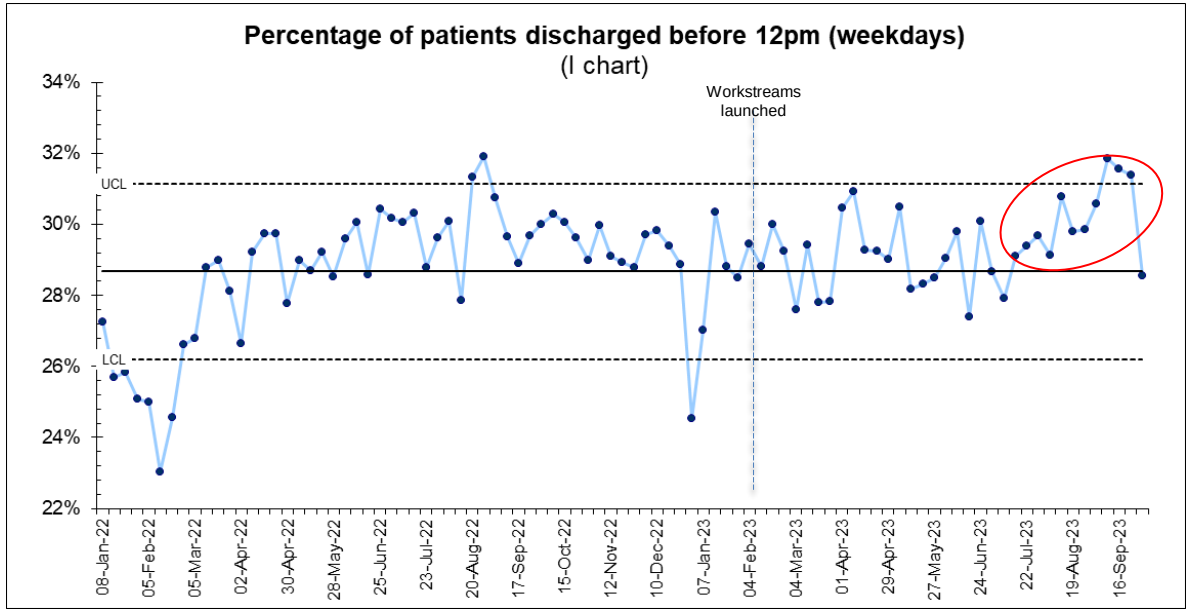
Inpatient Wards

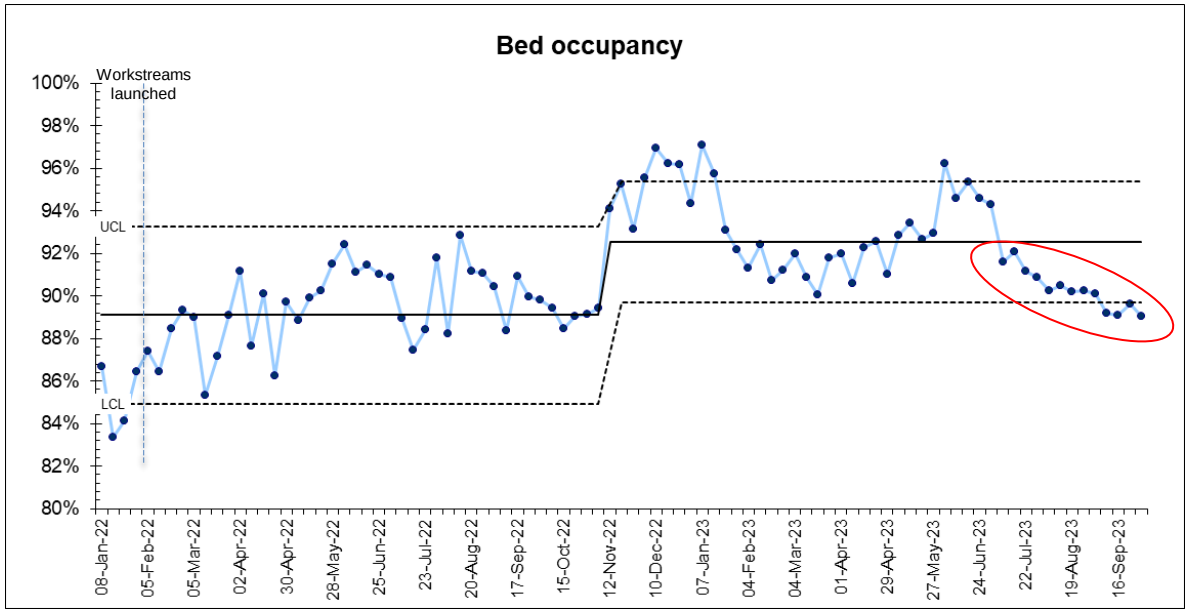
- Plan ahead and prioritise discharges for the next day
- Modern ward rounding – Sick, Out, Rest, To come in
- Optimise the use of the transit lounge for patients being discharged
- Establish a weekend discharge team

What impact have we had so far?

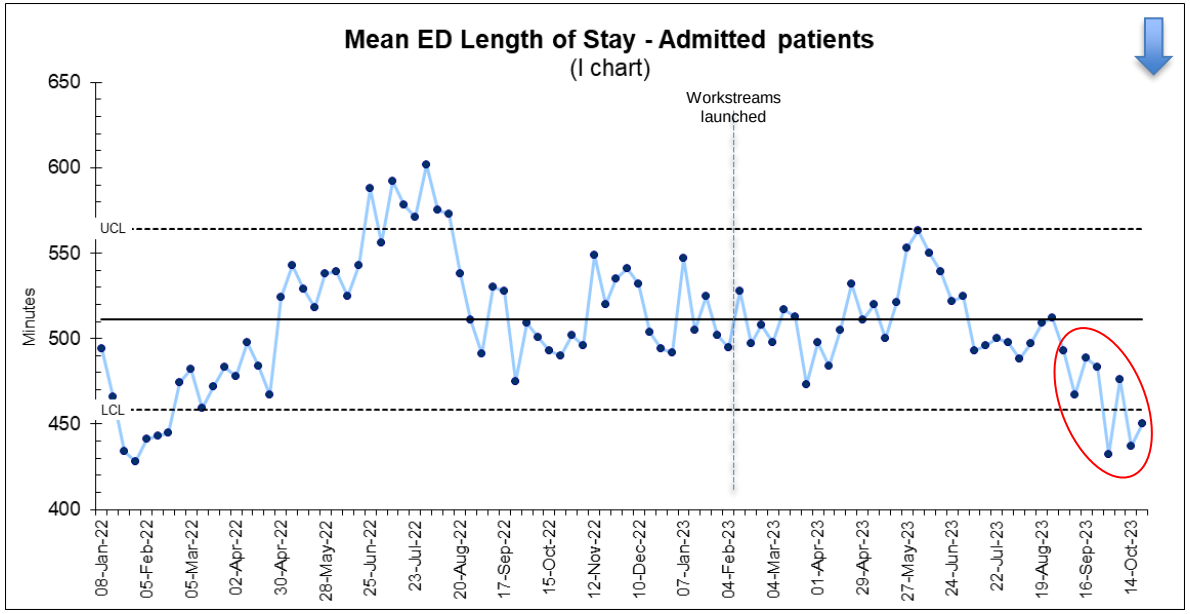
Improving flow and hospital capacity

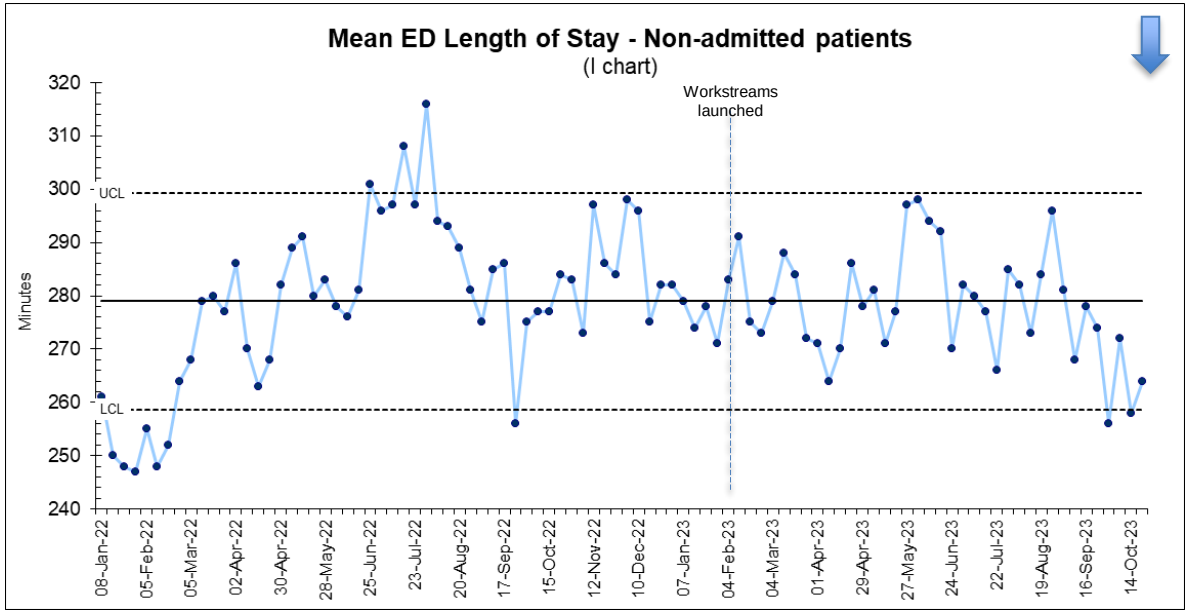


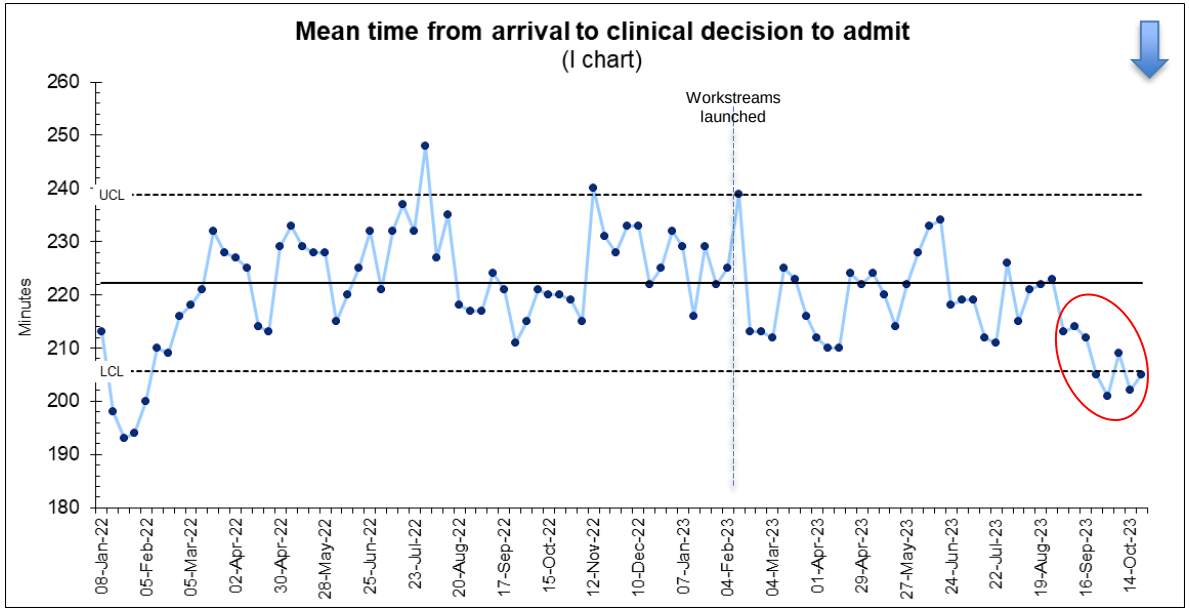




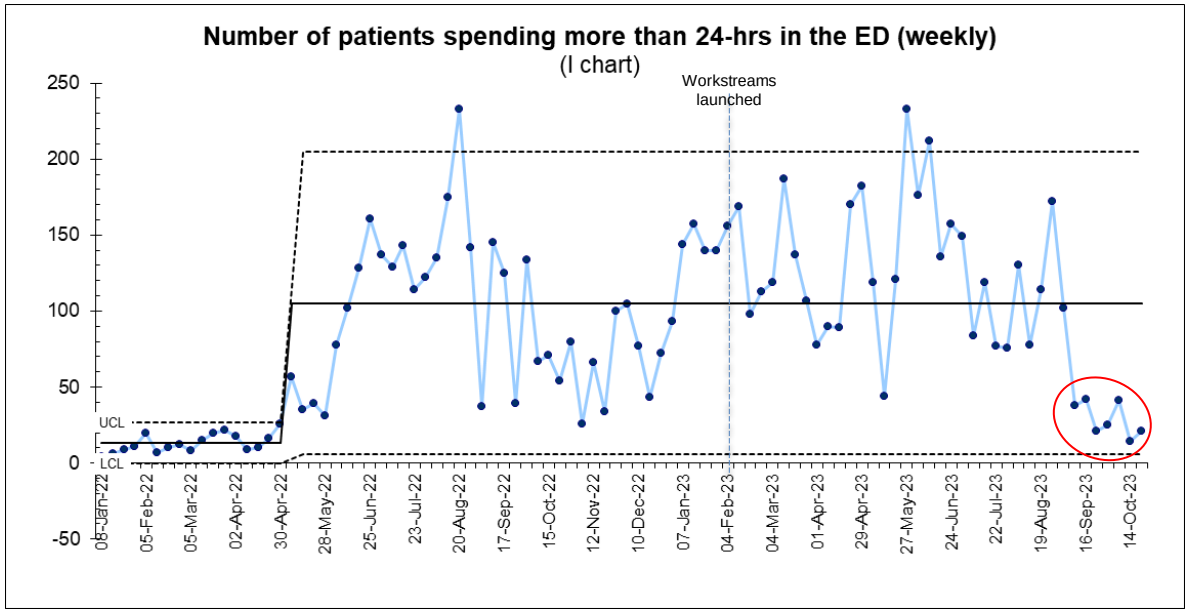
Improving timely emergency care

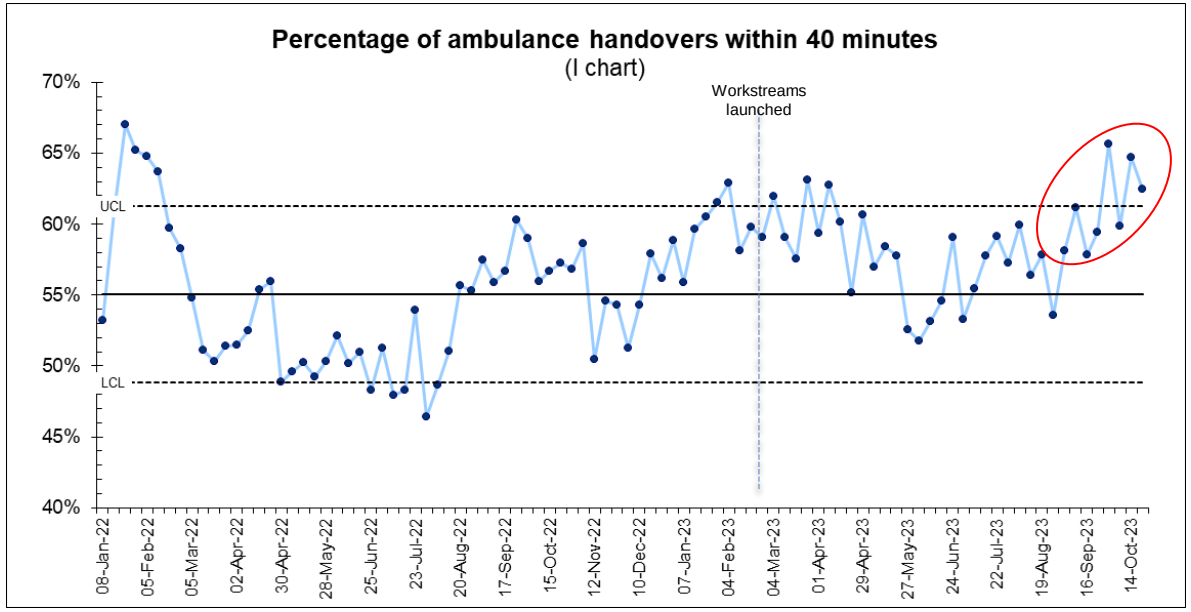






Impact on Department of Health KPIs



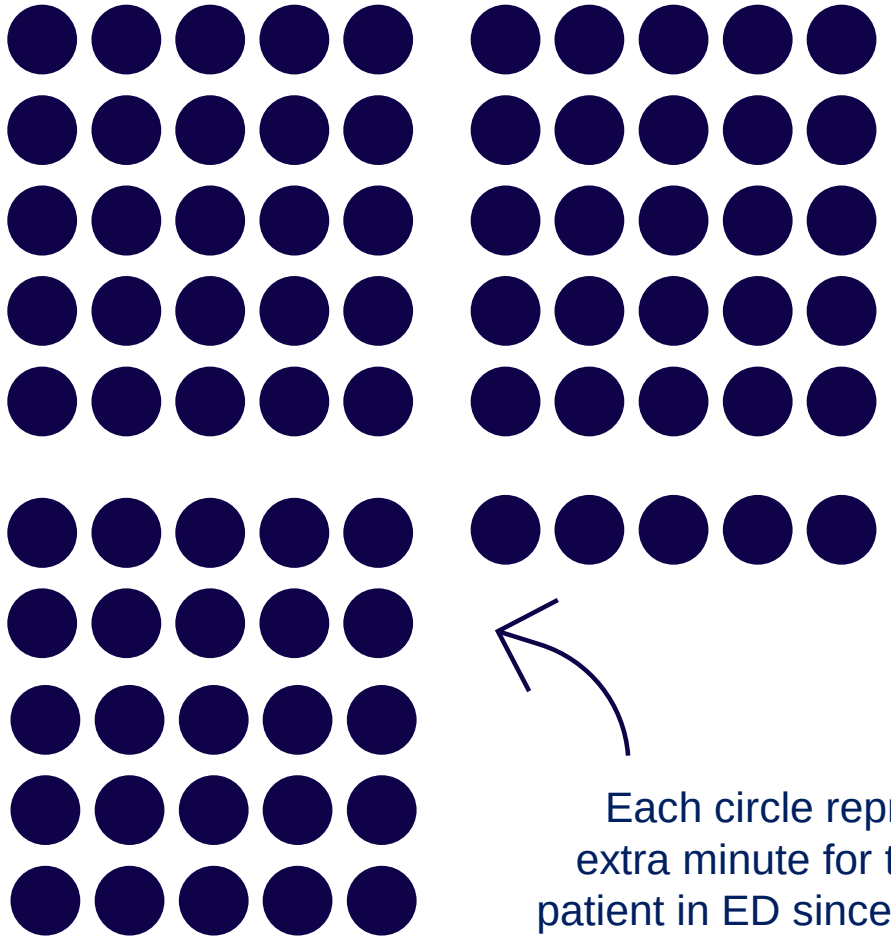


What about (early!) impact?

ED length of stay of admitted patients was reduced by >1 hour in the last month at participating hospitals

(Compared to Jan 22 – Feb 23)

Time saved...



Each circle represents one extra minute for the average patient in ED since the COVID pandemic

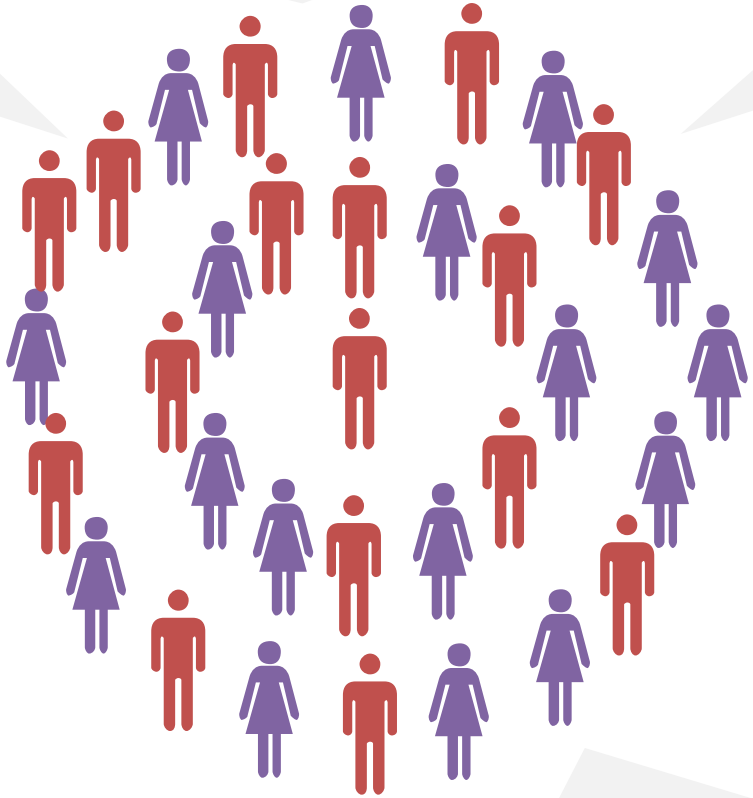
Safe and calm – what patients and staff are saying at a health service seeing improvement

"Its working! Feels safe and calm over here. So exciting!"
ED ANUM

"I felt really comfortable"
Patient

"Our ED is so much more safer. It feels like a much more controlled environment"
-ED Senior Doctor

"All the nurses were wonderful. They made me feel safe"
Patient



"You notice the difference in the main waiting room, it's just not as crowded and chaotic"
Senior triage nurse

"Cared for to an exceptional standard.. I felt safe and assured that my son was receiving timely, necessary and professional care at all times"
Carer

"Very good service! and quick to get in"
Patient

"People want to be a part of it, they can see that this is working and want to get involved"
ED ANUM

But we are not there yet – adapting and testing our approach

Key challenges and questions we faced

Beginning

Engagement

How do you engage a tired and skeptical workforce?

Pragmatism

How do you develop a simple but impactful change theory for a complex challenge?

Emerging

Variation

What differentiates organisations that are improving from those that aren't?

Spread

How do you recreate the conditions for success?

Now: Just leaving base camp

Destination: Summit

Heath service progress scores

Process level improvement seen

Outcome level improvement seen

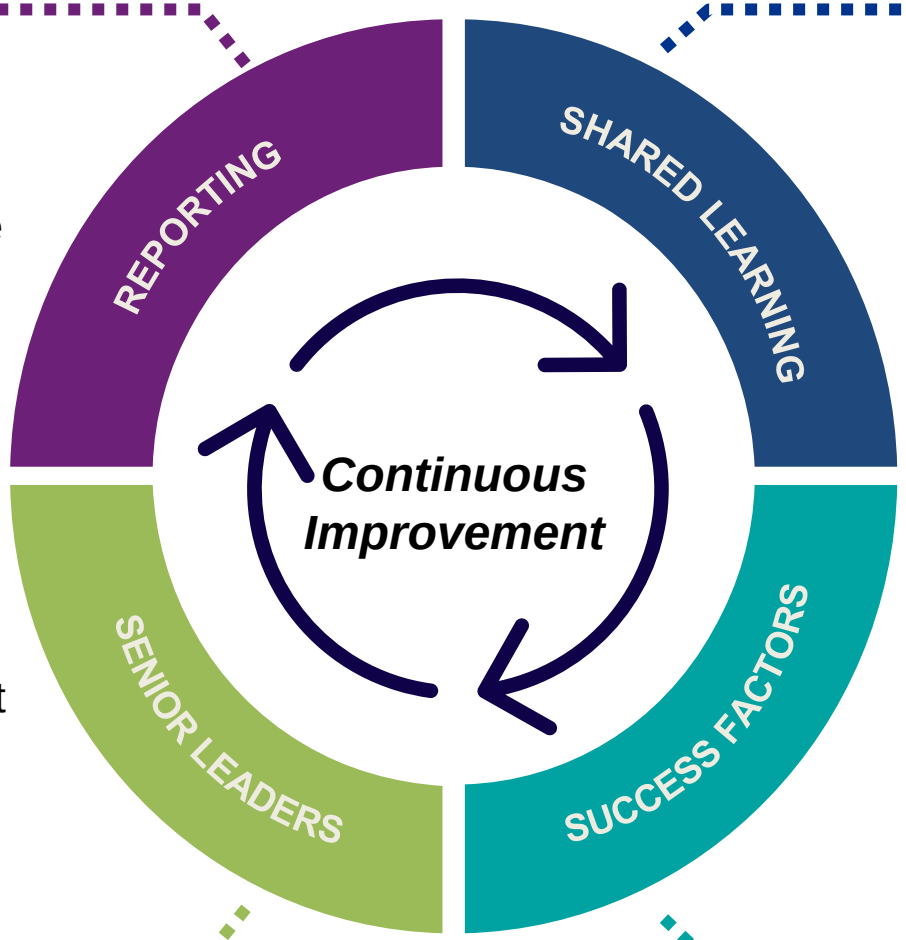
Sustained improvement seen

= Green shoots.

Ways we've adapted

- Increasing visibility of progress across the collaborative
- Objective, constructive advice
- Leadership pitch
- Healthy competition

- Elevate successes and local expertise
- Creating more opportunities to share learning



- Direct leadership engagement
- Discuss challenges
- Receive feedback on Collaborative

- Identify common success factors
- Implement new initiatives to elevate and spread these

Most common enablers observed in highest performing NHS Trusts

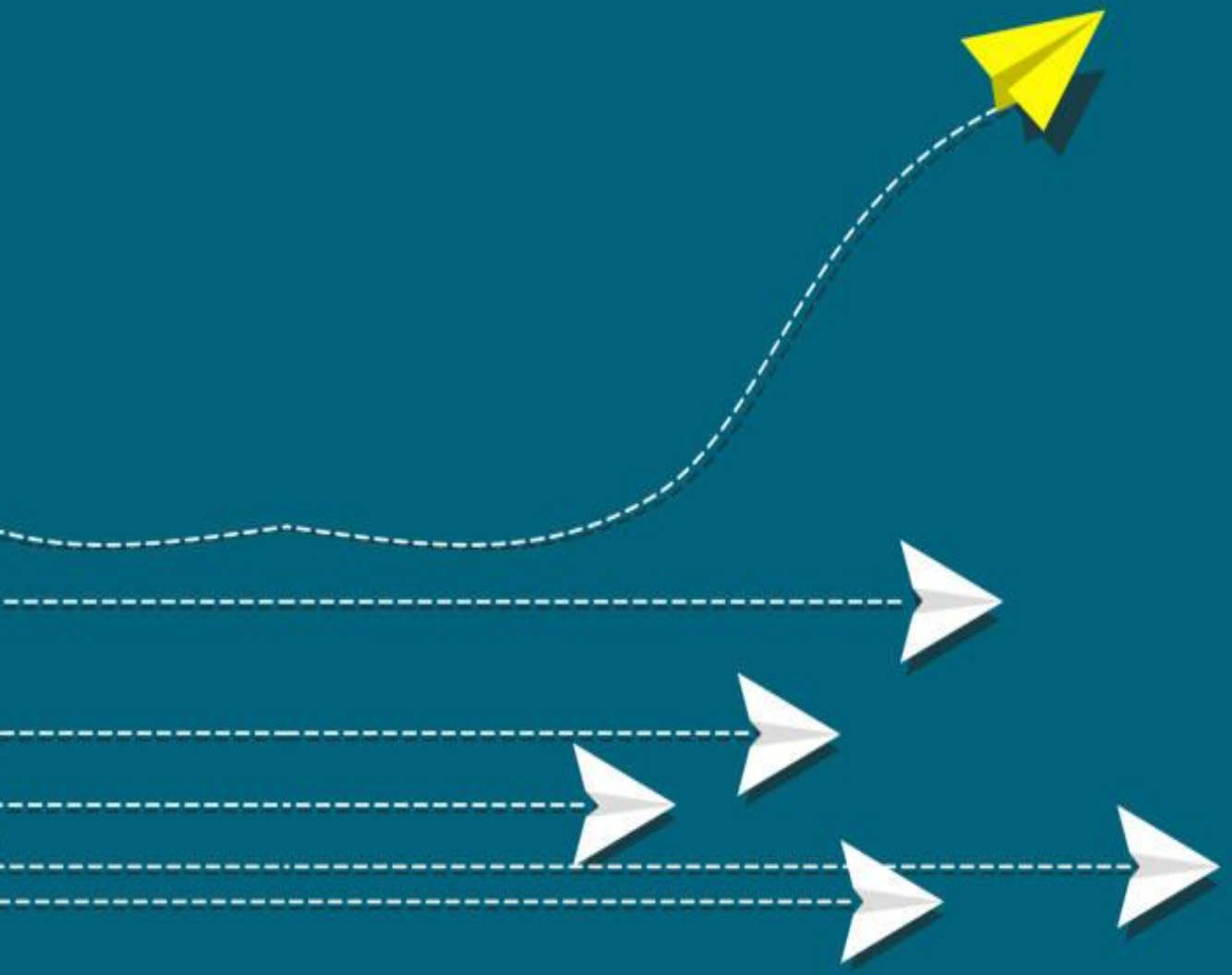
Strong executive leadership, **visibility** and daily oversight

Strong joined up clinical and operational cultures

Clinically co-designed approach to ward processes which are culturally held to account

Strong belief and adherence to “Internal Professional Standards”

Observed factors driving improvement in TECC



- Organisational alignment around improving acute flow as a priority
- Engaged clinical leadership (particularly medical)
- Engaged operational leadership
- Relentless focus on a small number of high-leverage change ideas
- Commitment and appropriate project resourcing to support workstream teams
- Effective use of data to drive engagement, learning and improvement

Leaving no stone unturned – 3 new initiatives

Internal Agreements and Standards

Collaborative-wide focus on developing Internal Agreements and Standards

"How we do things here"

Demonstration Sites

Provide intensive support to **two health services** to test whether expert on-site support and coaching can lead to an uplift in impact

Targeted Coaching

Provide targeted expert coaching to **five health services** that are 'stuck' in one or two areas

Wider impacts of the collaborative

Rethinking performance

MANAGEMENT PRACTICES

Pursue an integrated set of activities that support an environment of learning to ensure alignment of improvement efforts

LEADERSHIP PRINCIPLES

Engage in the disciplines of a learning organisation to foster a culture that promotes inquiry, reflection, systems thinking and purpose

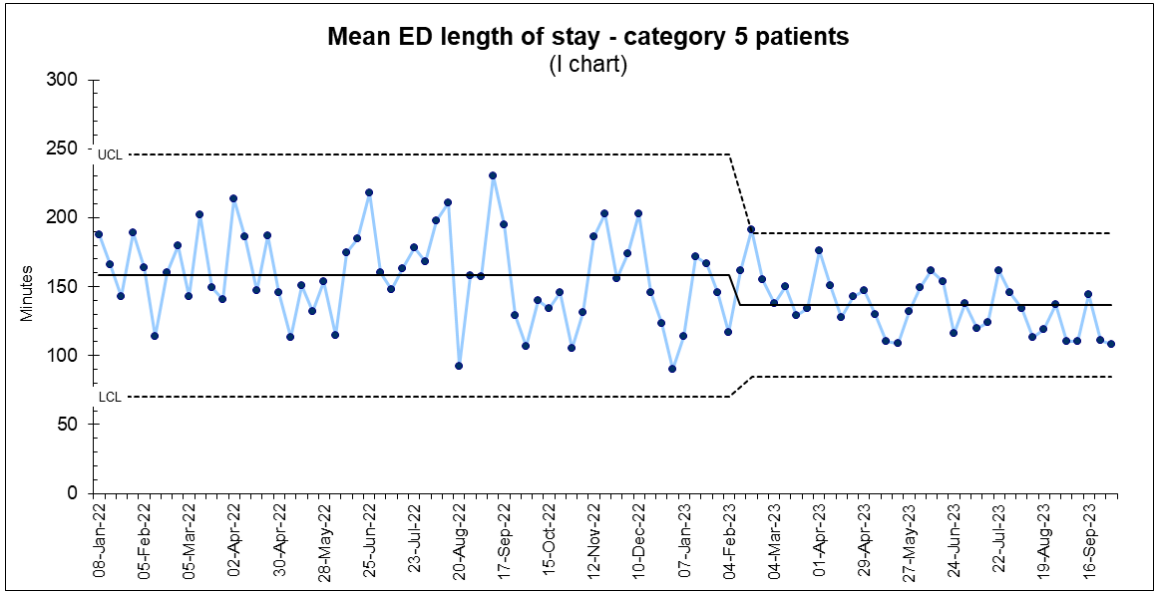
Thank you

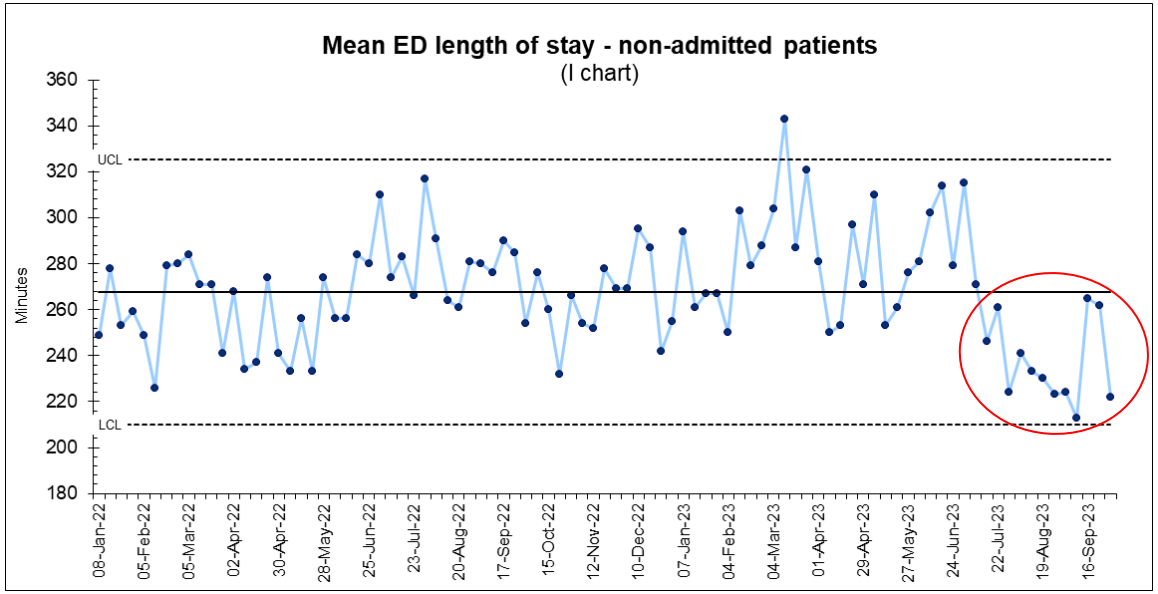
VICTORIA State Government

Institute for Healthcare Improvement

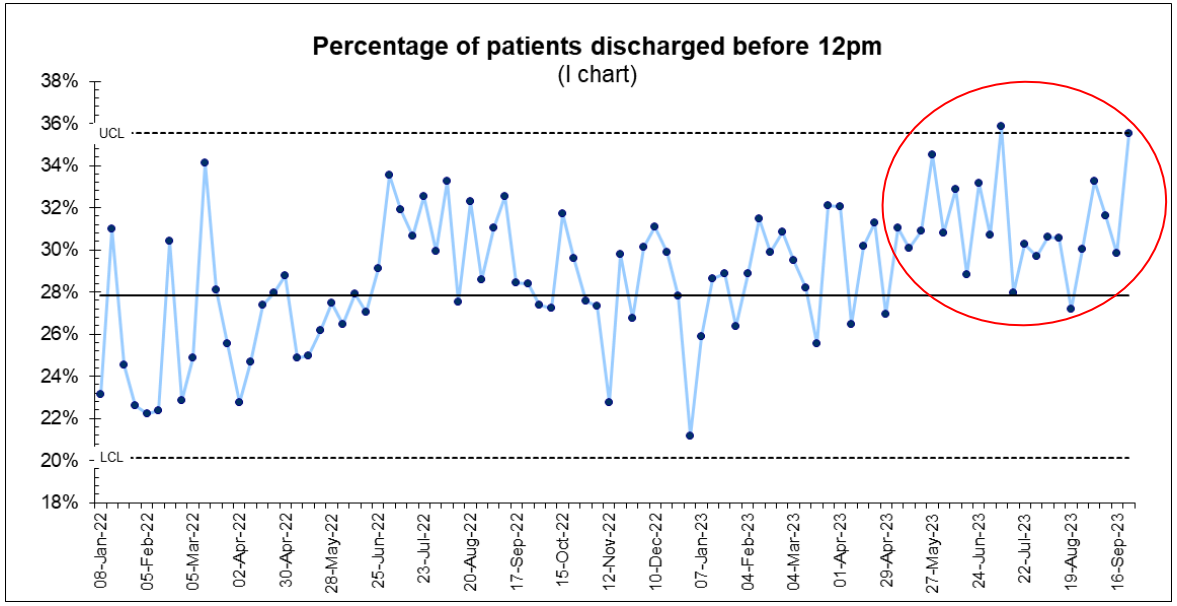
Appendix

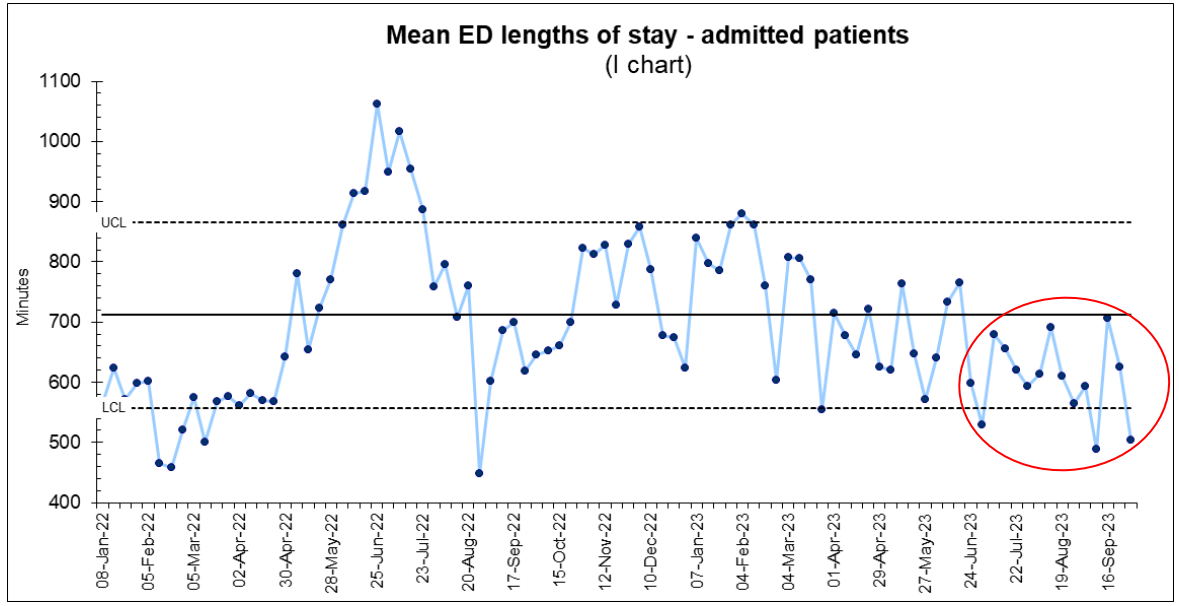
Regional health service highlight – improving fast track

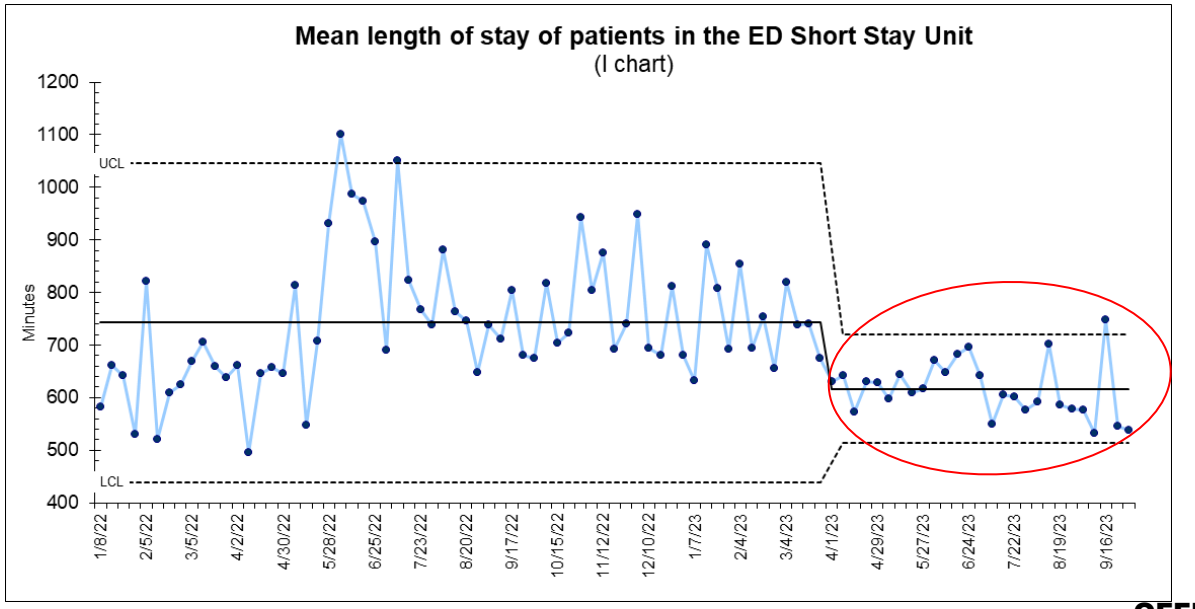


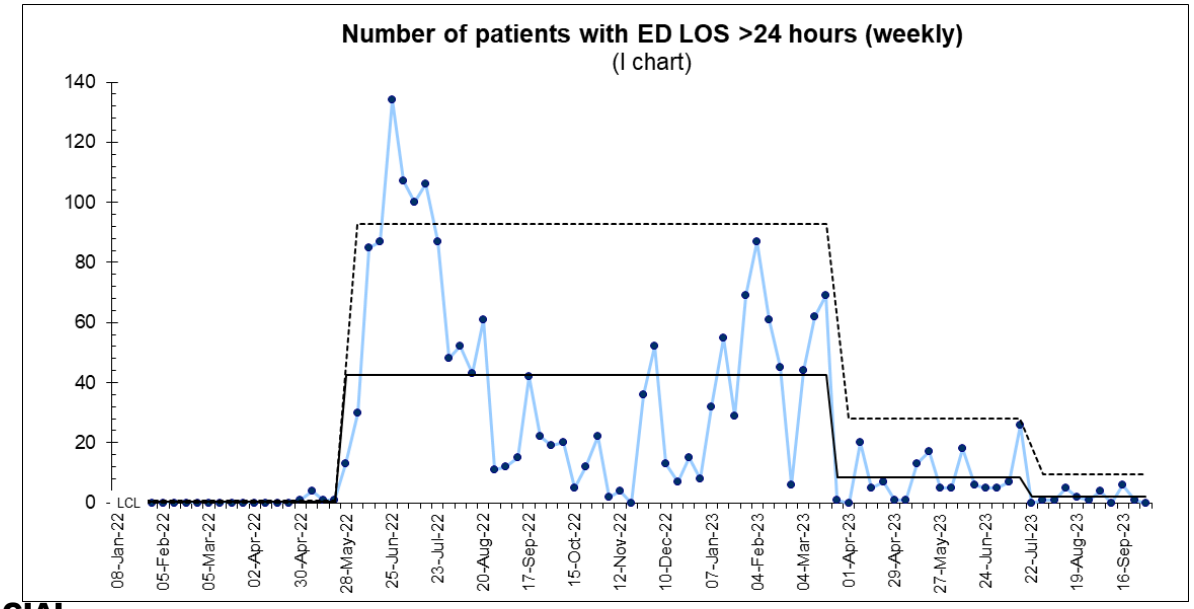


Metro health service highlight – the turnaround story

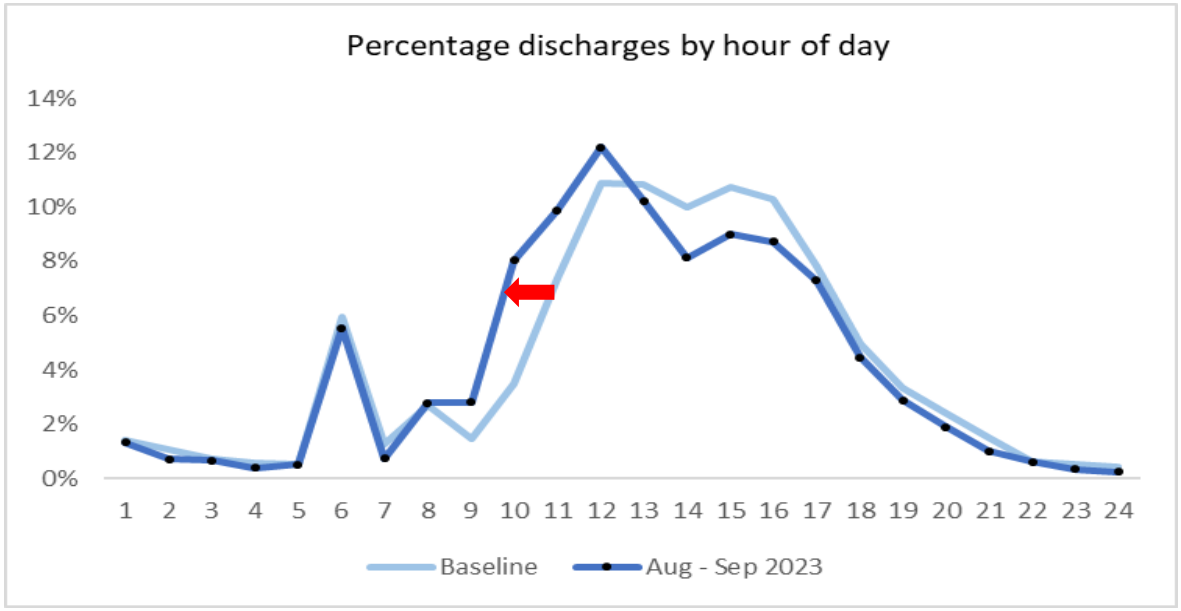


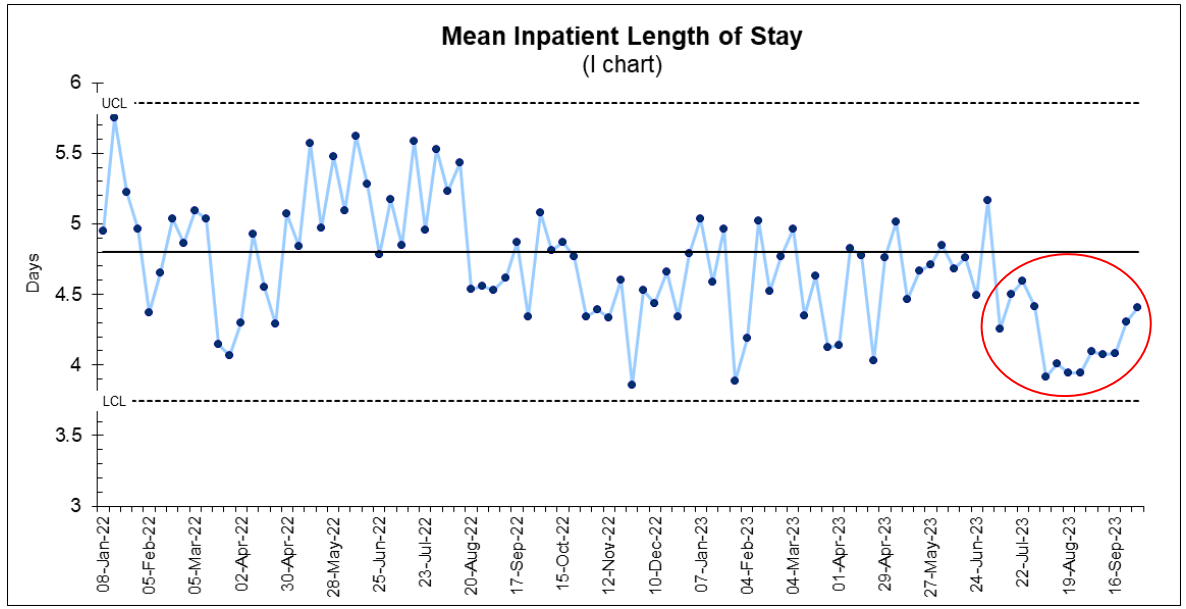


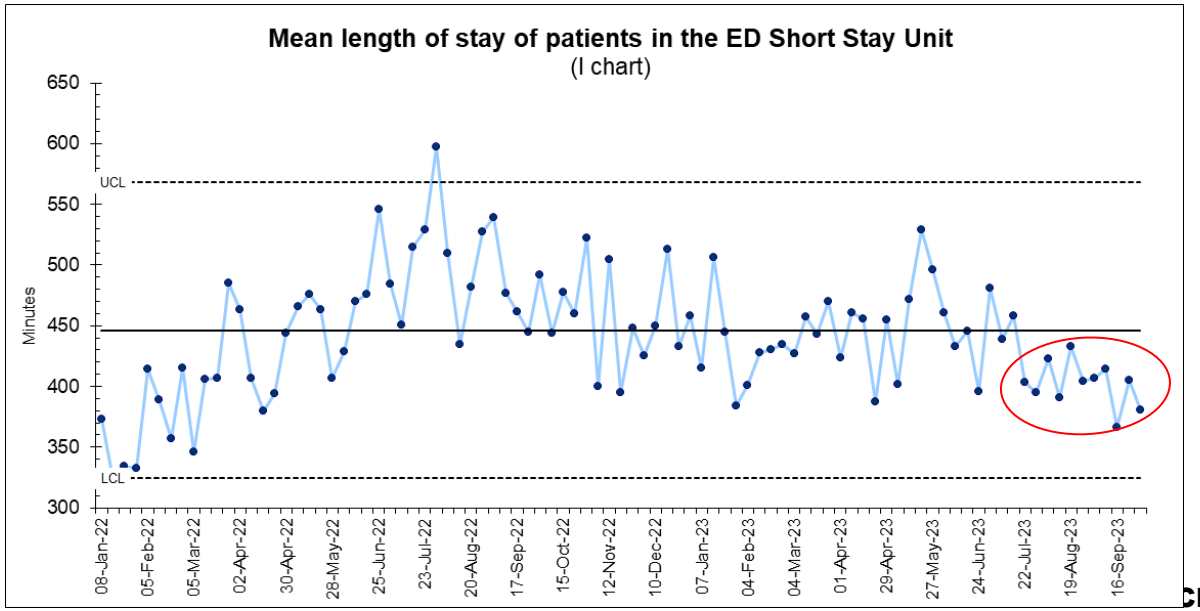


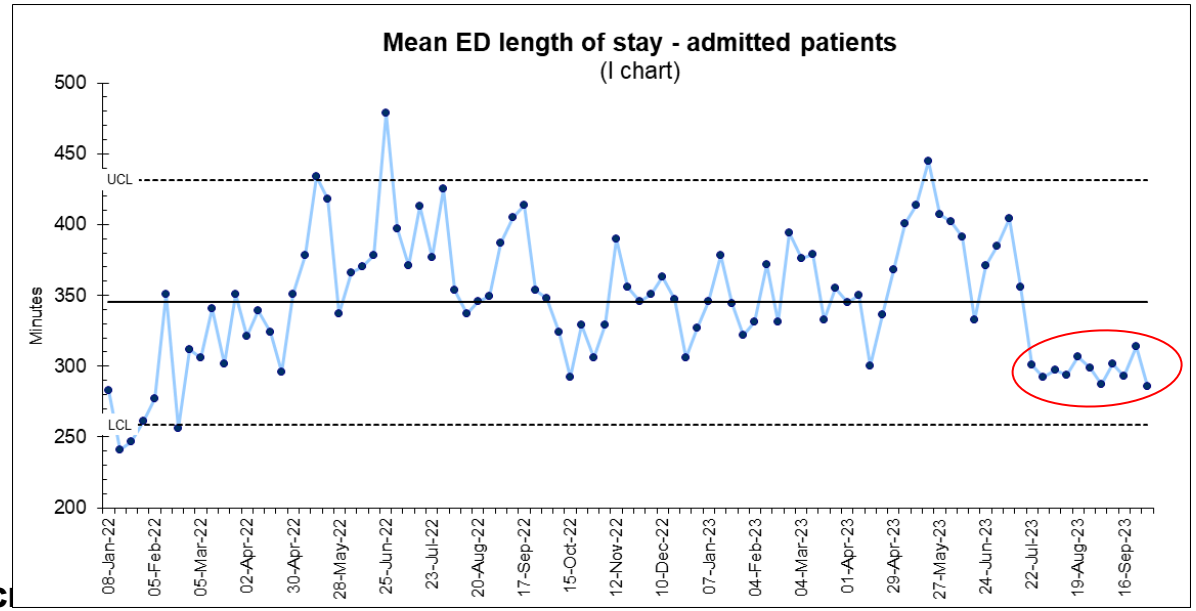


Metro health service highlight – hospital-wide flow









THANK YOU