Achieving Improvements Through Change at Scale and Pace

Understanding Breakthrough Collaborative Methodology

The ACHS Improvement Academy

NSW Ministry of Health
Whole of Health Program

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NSW GOVERNMENT Health

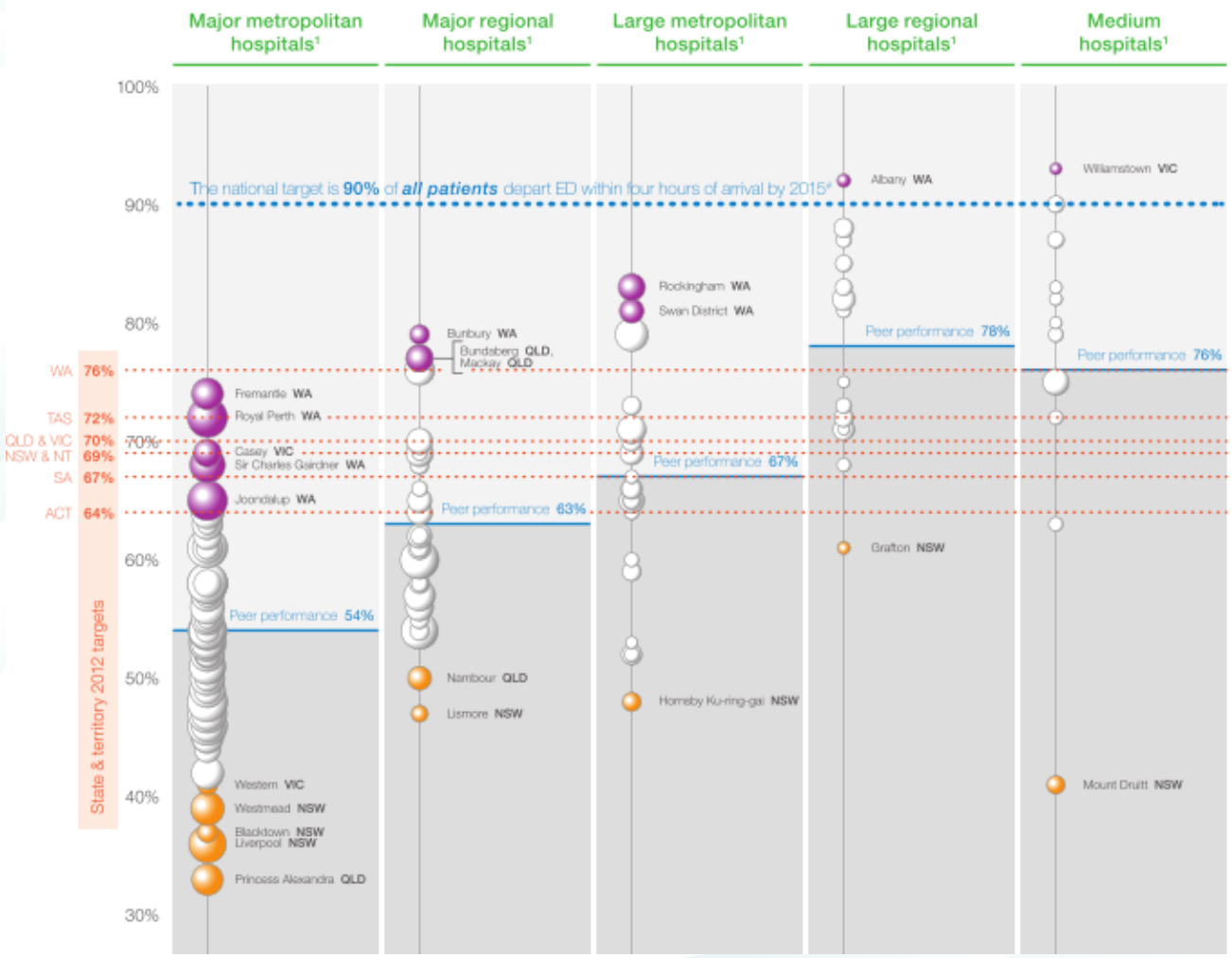
Bed Block!

- A common story particularly in winter – flu
- Cost of heating for older persons
- Cost of food
- Aging population – low birth rate
- National debt decreases in health spending
- In migration – war, terrorism and famine
- Pandemics
- Climate change
- And other issues …….

Solution: Commonwealth Targets

↗ National Emergency Access Target

Figure 1: Percentage of ***all patients*** departing ED within four hours of arrival amongst the largest hospital EDs in Australia, by peer group[1], 2011–12



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BMC Emergency Medicine

RESEARCH ARTICLE Open Access

Who breaches the four-hour emergency department wait time target? A retrospective analysis of 374,000 emergency department attendances between 2008 and 2013 at a type 1 emergency department in England

Niklas Bobrovitz[1*], Daniel S. Lasserson[2] and Adam D. M. Briggs[3,4]

Abstract

Background: The four-hour target is a key hospital emergency department performance indicator in England and one that drives the physical and organisational design of the ED. Some studies have identified time of presentation as a key factor affecting waiting times. Few studies have investigated other determinants of breaching the four-hour target. Therefore, our objective was to describe patterns of emergency department breaches of the four-hour wait time target and identify patients at highest risk of breaching.

Methods: This was a retrospective cohort study of a large type 1 Emergency department at an NHS teaching hospital in Oxford, England. We analysed anonymised individual level patient data for 378,873 emergency department attendances, representing all attendances between April 2008 and April 2013. We examined patient characteristics and emergency department presentation circumstances associated with the highest likelihood of breaching the four-hour wait time target.

Results: We used 374,459 complete cases for analysis. In total, 8.3% of all patients breached the four-hour wait time target. The main determinants of patients breaching the four-hour wait time target were hour of arrival to the ED, day of the week, patient age, ED referral source, and the types of investigations patients receive ($p < 0.01$ for all associations). Patients most likely to breach the four-hour target were older, presented at night, presented on Monday, received multiple types of investigation in the emergency department, and were not self-referred ($p < 0.01$ for all associations). Patients attending from October to February had a higher odds of breaching compared to those attending from March to September (OR 1.63, 95% CI 1.59 to 1.66).

Conclusions: There are a number of independent patient and circumstantial factors associated with the probability of breaching the four-hour ED wait time target including patient age, ED referral source, the types of investigations patients receive, as well as the hour, day, and month of arrival to the ED. Efforts to reduce the number of breaches could explore late-evening/overnight staffing, access to diagnostic tests, rapid discharge facilities, and early assessment and input on diagnostic and management strategies from a senior practitioner.

Keywords: Four-hour target, Emergency department, Accident and emergency, Performance

Conclusions There are a number of independent patient and circumstantial factors associated with breaching the four-hour ED wait time target including:

- Patient age – Older, placement difficulties
- ED referral source – self
- Types of investigations – multiple complex
- Hour, day, month of arrival to ED – night, winter, weekdays more than weekends

What does the evidence say?

Despite improvement in NEAT attainment, hospitals broadly have been unable to achieve the targets particularly for admitted patients, the intended beneficiaries of the policy. NEAT has resulted in increases in hospital admissions (Goh 2012; Lowthian et al. 2015), potentially adding to access block and reducing patient flow (Perera et al. 2014) with reports of prioritising patients as they approach 4-hours (Green 2014) and data manipulation (ACT Auditor-General's Office 2012). Implementation of NEAT through a single incentivised process indicator presents risks to healthcare quality, appropriateness and safety (Baggoley et al. 2011; Mason et al. 2012; McCarthy 2013; Nicholls 2015; Weber et al. 2011), with potential for inadequate assessment and treatment due to rushed decision-making (Mountain 2010).

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title The National Emergency Access Target: aiming for the target but what about the goal?

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Neat Performance incentives were removed as part of the change
To hospital funding arrangements announced in the 2014-15 Budget

What happens when unrealistic targets are set by bosses!

- Lucy video clip

2015

The Four Hour Rule: The National Emergency Access Target in Australia

Time to Review

Systematic Literature Review Appendix A

January 2015 / Version 1.0

Great state. Great opportunity.
And a plan for the future.
Queensland Government

Princess Alexandra Hospital

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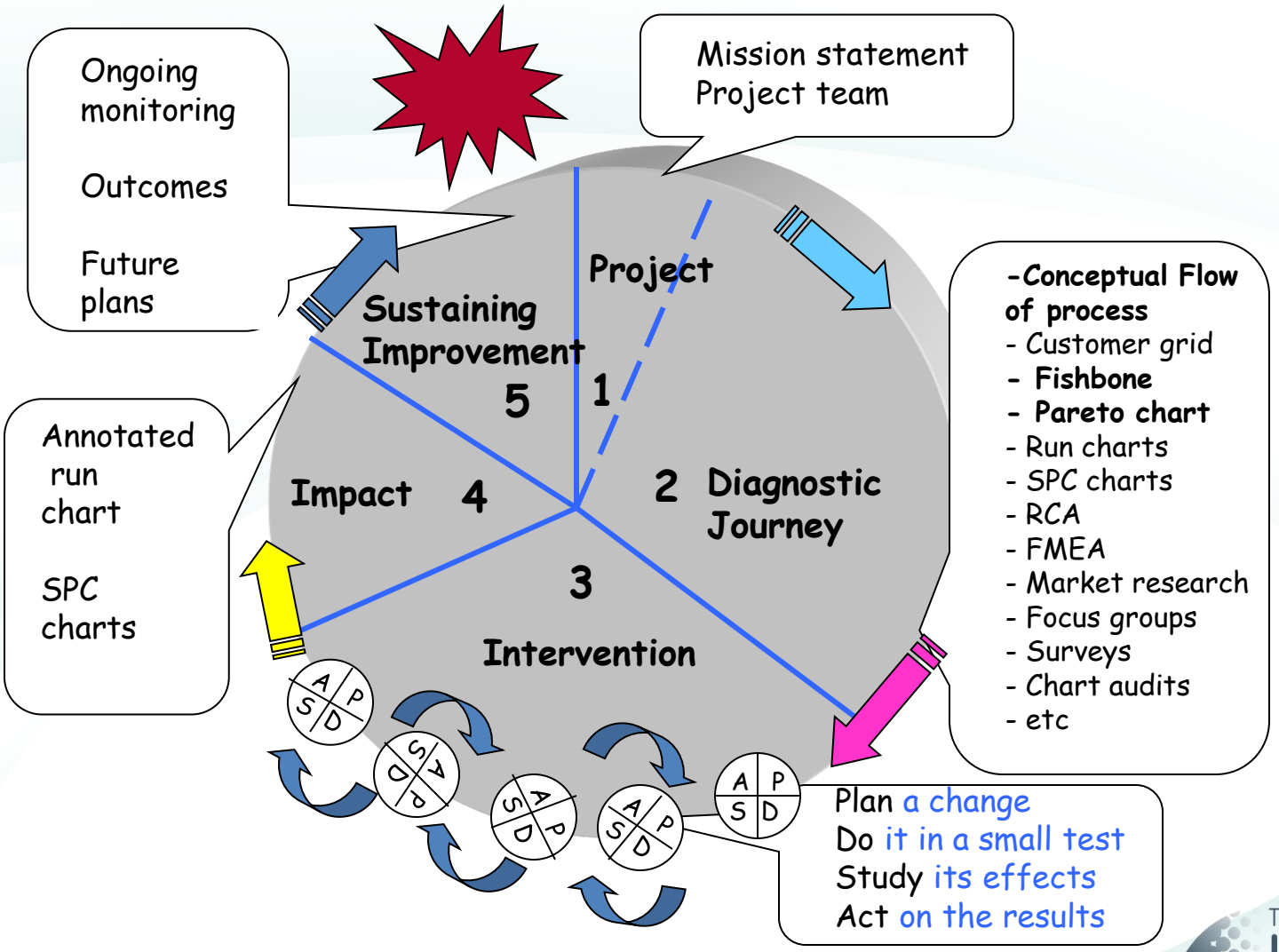
FINDINGS

- Care co-ordination forms
- Telephone health helplines
- Ambulance diversion bypass
- GPs in ED
- Fast track/streaming
- Geriatrician ED
- Nurse Journey/ ED flow Co-ordinator

Driving improvements this is a whole of health system problem

- Public Hosp
- Private Hosp
- Primary
- Community
- Mental health
- Aged care
- Disabilities
- Social care

Clinical Practice Improvement (*Deming E/James B Method*)



Harrison & Rubin 2002

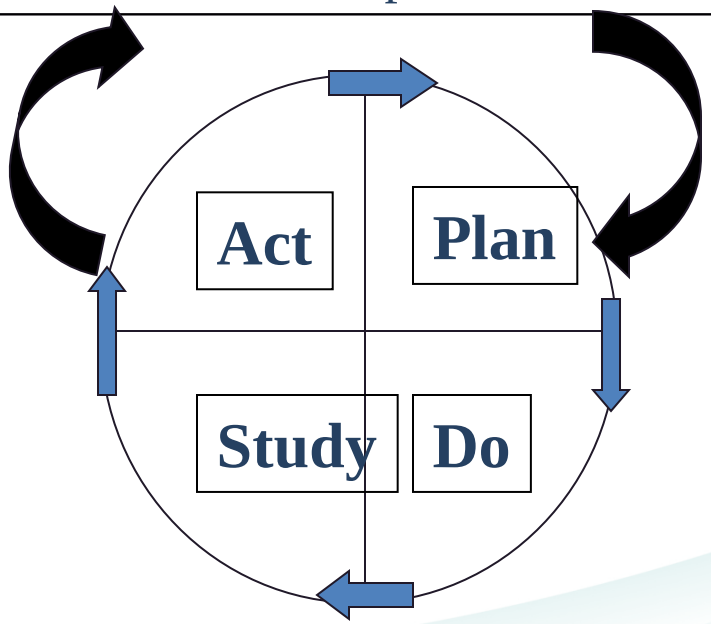
Adapted IHC James

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



From: Associates in Process Improvement

The ACHS Improvement Academy

Science of QI

- Change is always local in the micro system
- Context is everything – Diagnostics before change
- To improve you have to change
- Not every change is an improvement – PDSA before full implementation
- Measure using SPC charts
- Reduce variation
- Interdisciplinary team work
- Compete on implementation collaborate for knowledge
- Engage consumers/patients
- Focus on quality

The Future is Breakthrough Change. Can Your Organization Compete?

Posted by Paula Alsher, *Implementation Management Associates* on Thu, Aug 04, 2016 @ 03:11 PM

- You don't have to look far to see an example of breakthrough, disruptive change. Uber. Airbnb. These are highly disruptive, innovative concepts that have radically transformed their respective marketplaces. These are great ideas that were scalable and able to be implemented at speed. Breakthrough Change

The Need For Speed

- We talk about speed a lot, and there has never been more need for implementation at speed. Leaders must have a laser-focus on the ability of the organization to implement. In fact, "Implementation" must become a core capability.

What is a Breakthrough Collaborative?

Breakthrough Series (BTS) is an improvement method that relies on spread and adaptation of existing knowledge to multiple settings to accomplish a common aim.

It strives to achieve change at Scale and Pace

Institute for Healthcare Improvement: Boston MA

Local project can be scaled up

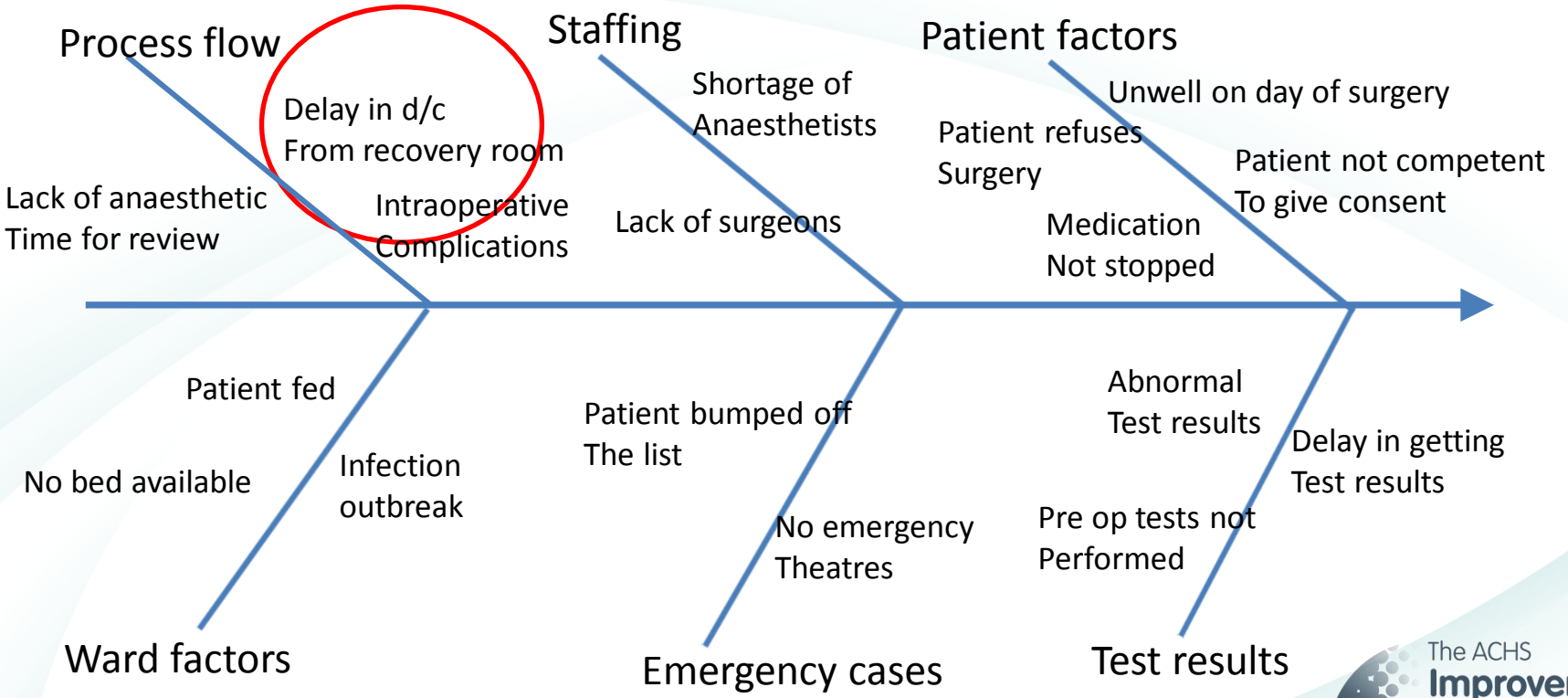
Problem:

- Theatre cancellations
- Increase in length of stay in ward for patients waiting for theatre
- Impact on Emergency department as lack of inpatient beds

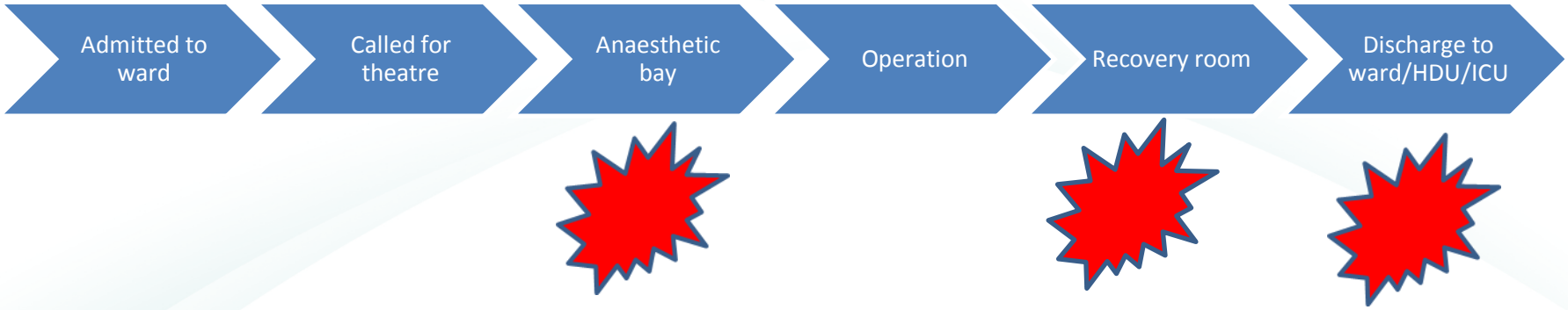
Aim

- To achieve 100% of patients booked for elective surgery operated on the day of surgery within the next 6 months.
  - No increase in MET, cardiac arrest or unplanned transfers to ICU
  - No increase in patient complaints
  - Decrease in delay in transfers to the ward from ED for patients requiring admission

Diagnostics



Overview of process flow



Delays occurred due to availability of an anaesthetist to leave the anaesthetic bay or theatres to discharge patients from the recovery room. If recovery room full the next patient could not be called

Interventions, ideas

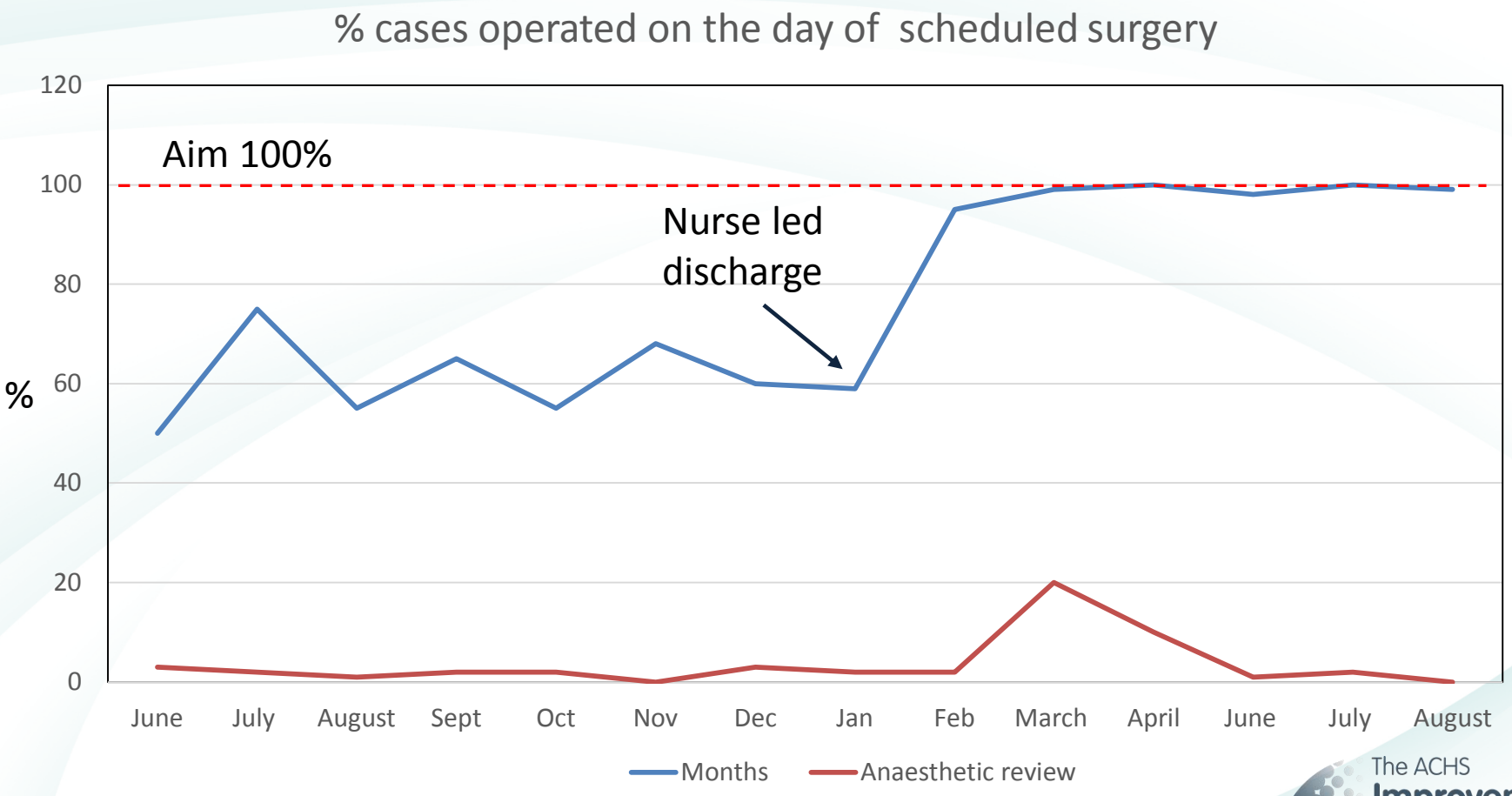
- Literature review – nurse led criterion discharge cost neutral
- Employ more anaesthetists $$$
- Build more operating theatres $$$
- Reduce the number of surgeons, therefore reduce access of patients to theatre X
- Increase the hours of operating $$$

Test of change PDSA

- Meetings with anaesthetists, surgeons and recovery room nurses
- Review of patients
- Establishment of criteria for discharge

- PDSA
  1. Anaesthetist and nurse joint discharge
  2. Anaesthetist shadow nurse discharge
  3. Test in normal hours
  4. Test in emergency theatres
  5. Test out of hours

Nurse led discharge from recovery room PDSA



Theory for change following PDSA testing

- Nurse led discharge from the recovery room based on pre determined criteria can occur
  - Monday – Friday 9am -5pm
  - Nurses undergo a period of supervised practice and sign off by anaesthetic consultant
  - Data will be collected on MET calls, cardiac arrests, unplanned transfers to ICU or urgent attendance by an anaesthetist
- Nurse led discharge will **not** occur for emergency cases out of hours or weekend cases.

This project was scaled up

- Initial test in one Singaporean hospital in 2012
- Supervision was by Northern Centre for Healthcare Improvement NSLHN
- Following multiple tests of change and in different operating theatres and within and out of hours project was rolled out across all Singaporean hospitals and planned surgery cancellation became a KPI
- Nurse criterion led discharge was successful
- Outcome and process measures were tracked

- Successful organisations understand the importance of **implementation**, not just strategy, and, moreover, recognize the crucial role of their people in this process.

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Thank you and Questions

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