Designing and prioritising your projects

Focussing on the things that will deliver the most

Outline

- What will success look like
- Linking with strategy
- Thinking about how your project is positioned
- Project initiation / defining and setting up your project
- Project portfolio assessment - workshop

Australian Business Excellence Framework

Success markers

- Effective prioritisation of your improvement efforts to deliver maximum benefits
- Process efficiency and effectiveness through reduced waste and variation
- Empowered and motivated workforce with increased retention
- Increased productivity and reduced operational costs
- Focus on the *patient* delivering superior perception of value
- Sustainable performance by increasing value *for the patient and community*

https://www.saiglobal.com/improve/excellencemodels/businessexcellenceframework/

Strategic WOHP projects

The NSW Government is working to achieve 12 Premier's priorities and 18 state priorities to grow the economy, deliver infrastructure, protect the vulnerable, and improve health, education and public services across NSW.

Building Infrastructure

Key infrastructure projects to be delivered on time and on budget across the state.

Creating Jobs

150,000 new jobs by 2019

Driving public sector diversity

Increase the number of women and Aboriginal and Torres Strait Islander people in senior leadership roles

Improving education results

Increase the proportion of NSW students in the top two NAPLAN bands by eight per cent

Improving government services

Improve customer satisfaction with key government services every year, this term of government

Improving service levels in hospitals

81 per cent of patients through emergency departments within four hours

Keeping our environment clean

Reduce the volume of litter by forty per cent, by 2020

Making housing more affordable

Deliver 61,000 housing completions per year.

Protecting our kids

Decrease the percentage of children and young people re-reported at risk of significant harm by 15 per cent

Reducing domestic violence

Reducing youth homelessness

Tackling childhood obesity

under eight areas of focus:

- Providing high quality health services
- Community partnerships
- Seamless networks
- Developing staff
- Research and innovation
- Enhancing assets and resources
- Supporting business
- Efficiency and sustainability

features of centres of excellence and principles for clinical network development. Models of care reflect the operating principles for health care delivery of providing the ***right services*** by the ***right team*** in the ***right place*** at the ***right time*** (Section 8.2). Implementation of these models of care will entail significant service

SERVICE (The service we provide)

Improving equity of access to services, especially for the most vulnerable communities, remains a major focus for HNE Health. While new models of service delivery have reduced the need to travel, further improvements are needed to facilitate timely access to health services. We must involve our patients and their families/carers if we are to provide coordinated and integrated healthcare, improve patient outcomes and minimise the impact of socio-economic disadvantage. We are committed to delivering high-quality patient focussed care.

Strategic Priorities	No.	Strategic Initiatives
Improve equity of access and service delivery	2.1	Provide integrated patient care as close to home as possible through: o Increasing use of Telehealth, by medical staff and other clinicians , especially in Ambulatory care settings o Expanding Out Of Hospital Care through outreach and community based models of care
	2.2	Enhance access to timely emergency services through new models of care and whole of hospital approaches
	2.3	Develop and implement an integrated district wide approach to meet surgical needs of our patients
	2.4	Improve access to emergency, respite and community based mental health care

“Evidence-based practice (EBP) is the conscientious and judicious use of current **best evidence** in conjunction with clinical expertise and patient values to guide health care decisions.

Best evidence includes empirical evidence from randomized controlled trials; evidence from other scientific methods such as descriptive and qualitative research; as well as use of information from case reports, scientific principles, and expert opinion. ”

The evidence for evidence based practice - Marita G. Titler

- **We now have a significant body of evidence on how to improve emergency patient access to care**
  - **Major redesign of existing clinical processes, work practices and bed management operations**
  - **Clinical leadership**
  - **Governance structures**
  - **Executive sponsorship**
  - **Cross disciplinary and multidisciplinary collaboration**
  - **Feedback of NEAT performance – and a balanced safety and quality scorecard**

CSIRO PUBLISHING
Australian Health Review, 2014, 38, 564–574
http://dx.doi.org/10.1071/AH14083

Aiming to be NEAT: safely improving and sustaining access to emergency care in a tertiary referral hospital

Clair M. Sullivan[1] MBBS, FRACP, Endocrinologist, Director of Physician Training Unit
Andrew Staib[1] MBBS, FACEM, Deputy Director of Emergency Medicine
Judy Flores[1] MD, FRACP, Chair, Division of Medicine
Leena Aggarwal[1] MBChB, FRACP, Director of Medical Assessment and Planning Unit
Alan Scanlon[1] BSc, Senior Data Analyst, Health Information Management Service
Jennifer H. Martin[2] MBBS, PhD, FRACP, Clinical Pharmacologist, Head Southern School of Medicine
Ian A. Scott[1] MBBS, FRACP, MHA, Director of Internal Medicine and Clinical Epidemiology

What does this paper add? This study demonstrates how mult
hospital caused the proportion of patients exiting the ED within 4
with best performing peer hospitals. This was associated with a 26%
and no clinically significant adverse effects. It demonstrates the
sponsorship, cross-disciplinary collaboration, regular feedback of
clinical processes, work practices and bed management operation

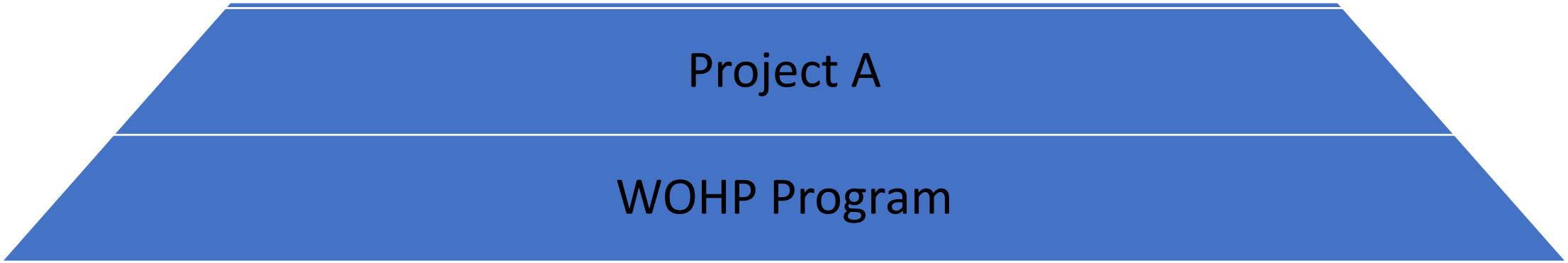
Objective. To implement and evaluate strategies for improving access to emergency department (ED) care in a tertiary hospital.

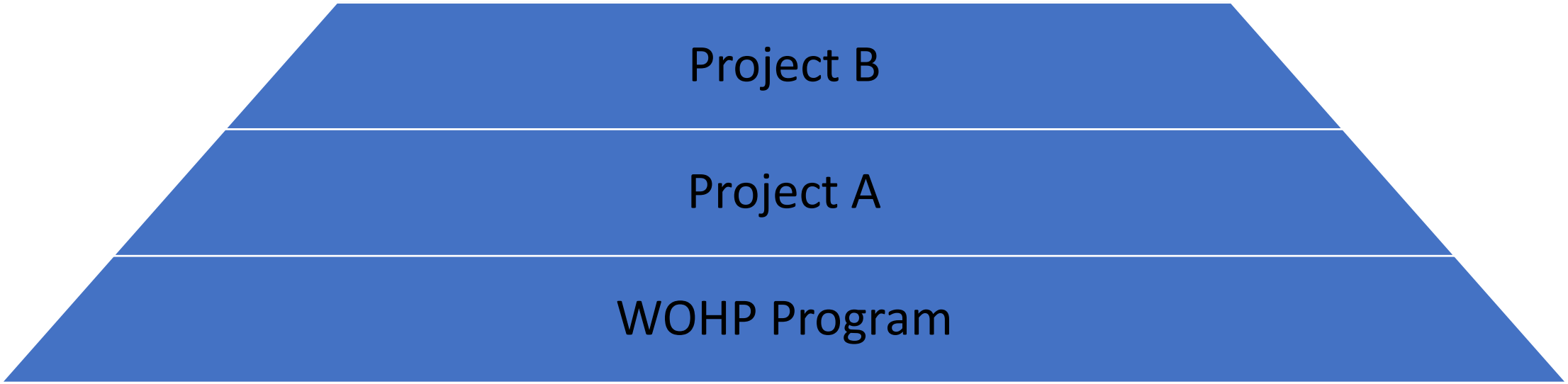
Methods. A retrospective pre–post intervention study using routinely collected data involving all patients presenting acutely to the ED of a major tertiary hospital over a 2-year period. Main outcome measures were changes in: the percentage of patients exiting the ED (all patients, patients discharged directly from the ED, patients admitted to inpatient wards); mean patient transit times in the ED; inpatient mortality rates; rates of ED 'did not wait' and re-presentations within 48 h of ED discharge; and selected safety indicators. Qualitative data on staff perceptions of interventions were also gathered.

Results. Working groups focused on ED internal processes, ED–inpatient unit interface, hospital-wide discharge processes and performance monitoring and feedback. Twenty-five different reforms were enacted over a 9-month period from April to December 2012. Comparing the baseline period (January–March 2012) with the post-reform period (January–March 2013), the percentage of patients exiting the ED within 4 h rose for all patients presenting to the ED (from 32% to 62%), for patients discharged directly from the ED (from 41% to 75%) and for admitted patients (from 12% to 32%; $P < 0.001$ for all comparisons). The mean ($\pm$s.d.) time all patients spent in the ED was reduced from 7.2 ± 5.8 to 4.4 ± 3.5 h ($P < 0.001$) and, for admitted patients, was associated with reduced in-hospital mortality (from 2.3% to 1.7%; $P = 0.045$). The 'did not wait' rates in ED fell from 6.9% to 1.9% ($P < 0.001$), whereas ED re-presentations within 48 h among patients discharged from the ED rose slightly (from 3.1% to 3.8%; $P = 0.023$). Improvements in outcome measures were maintained over the subsequent 12 months.

Conclusions. Multiple reforms targeting processes both within the ED and its interface with inpatient units greatly improved access to ED care over 12 months and were associated with decreased in-hospital mortality.

WOHP Program


Project A
WOHP Program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Project A
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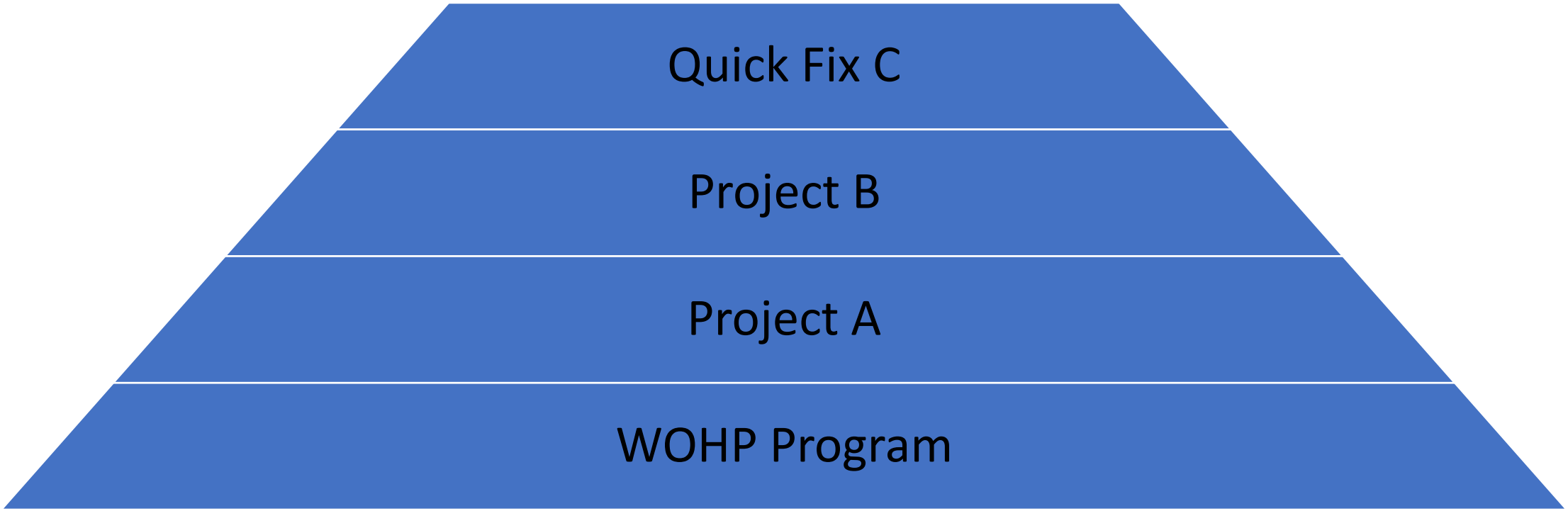
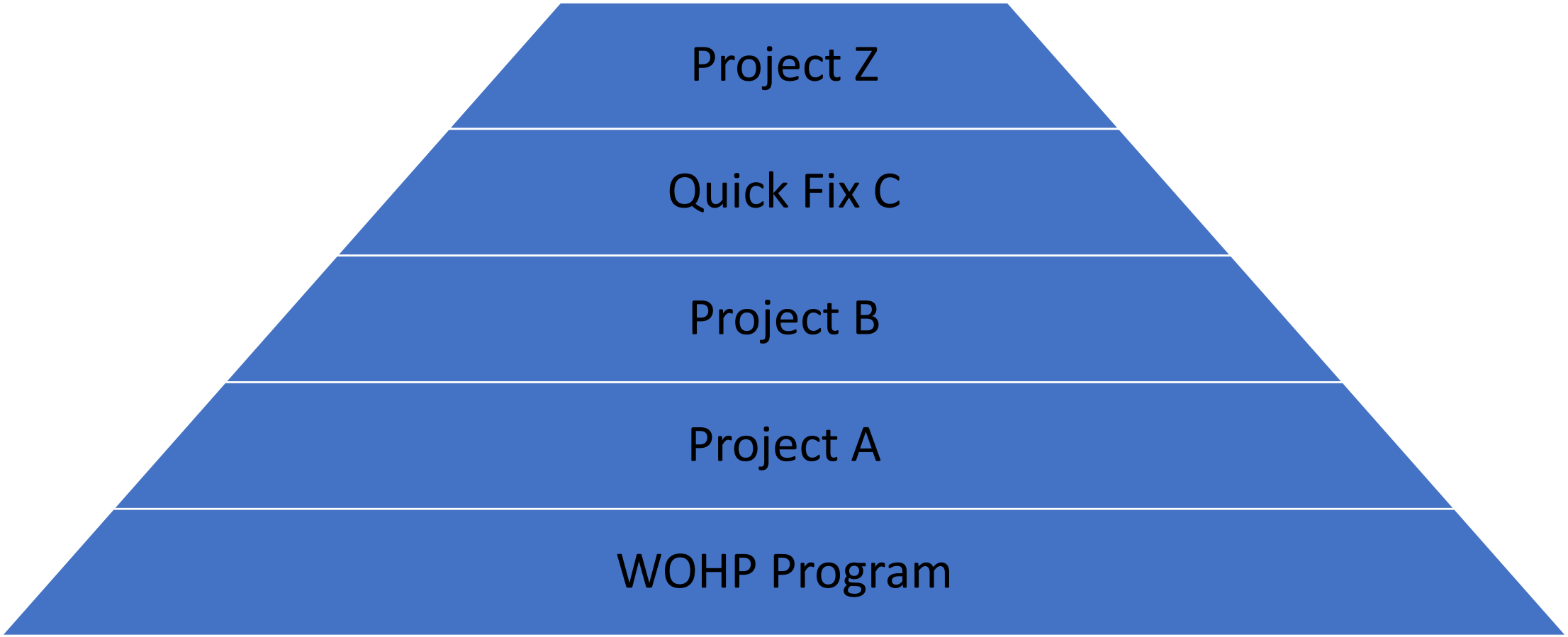
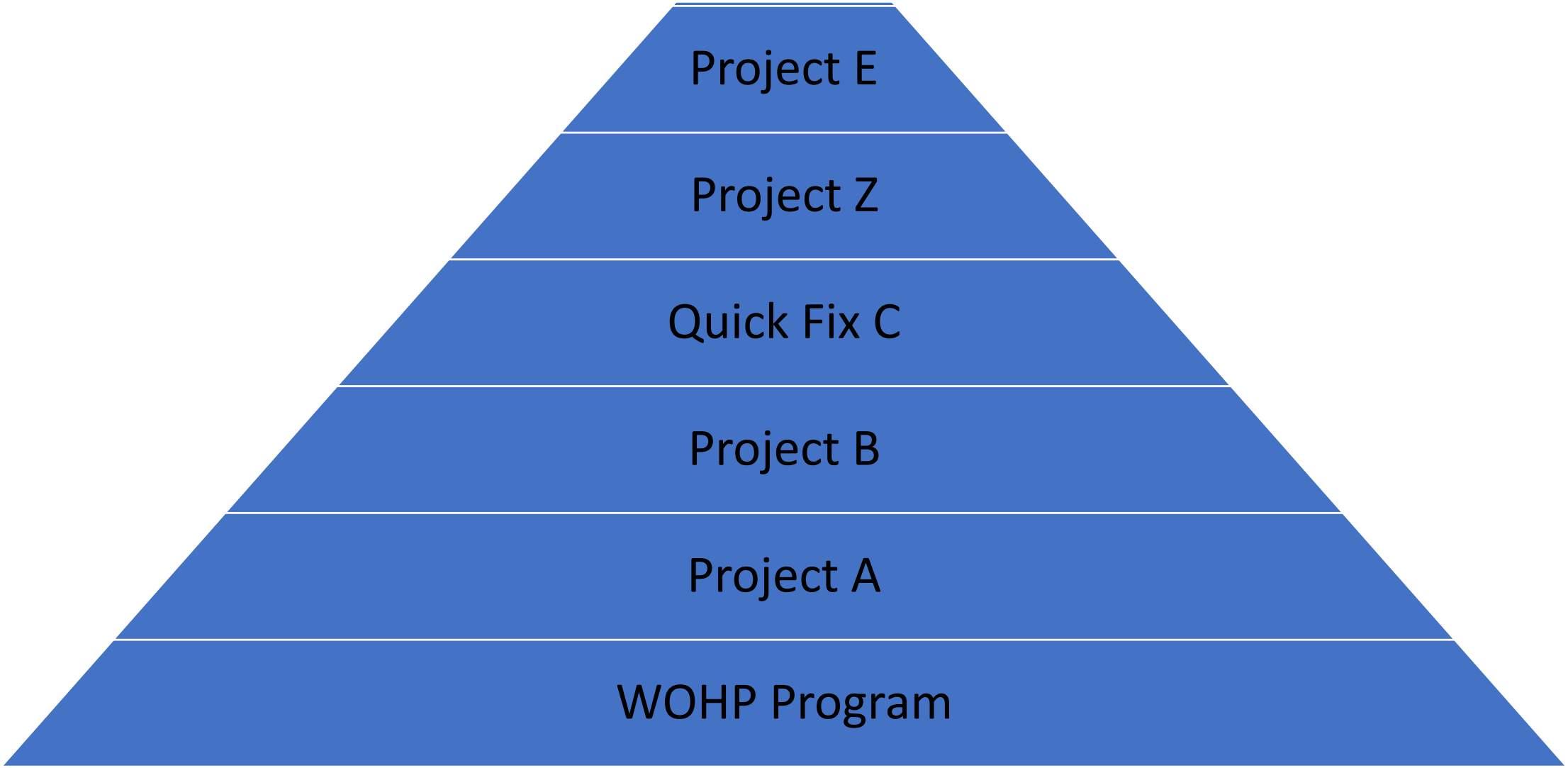
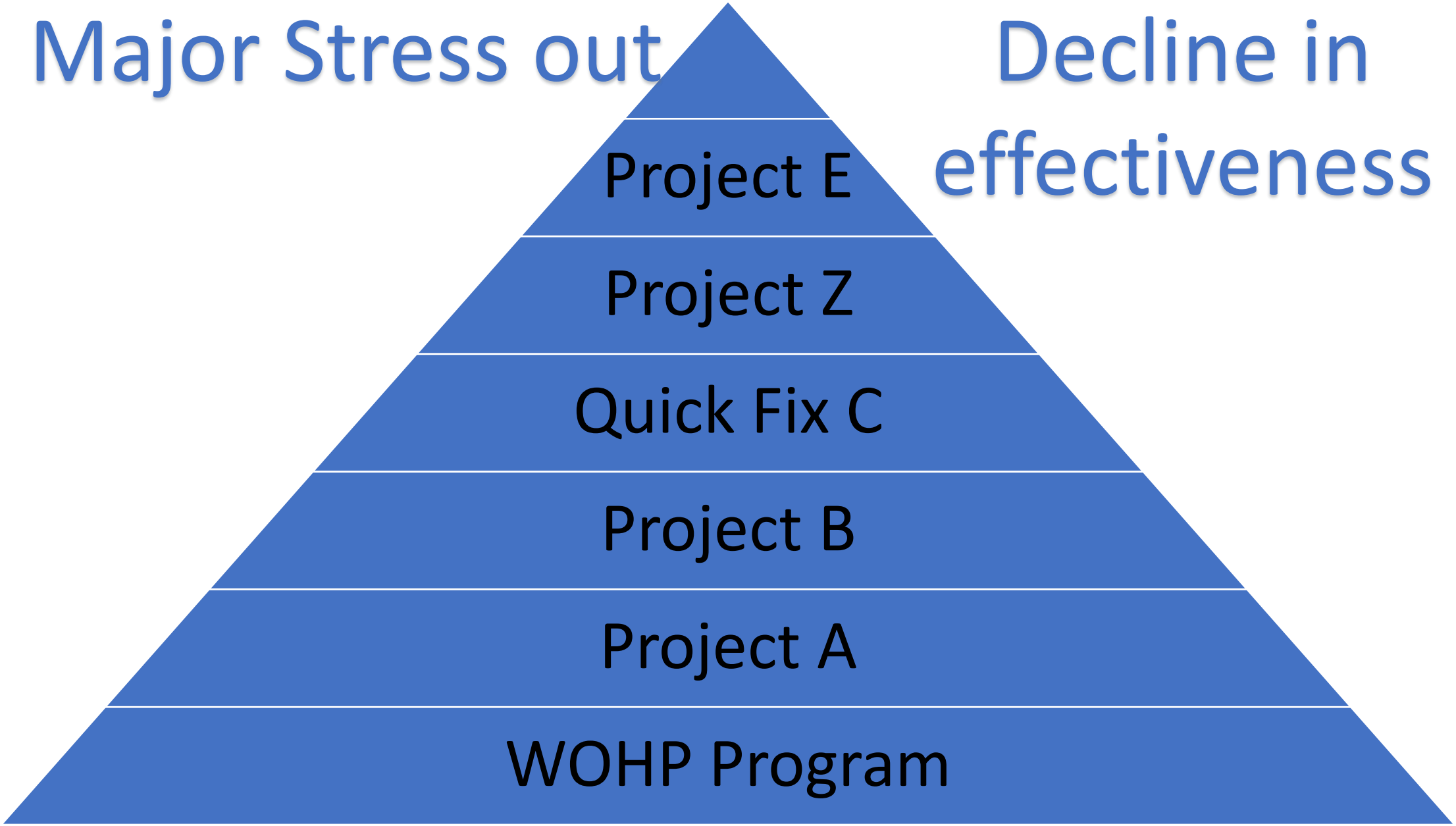

Quick Fix C
Project B
Project A
WOHP Program


Project Z
Quick Fix C
Project B
Project A
WOHP Program


Project E
Project Z
Quick Fix C
Project B
Project A
WOHP Program

Major Stress out

Decline in effectiveness



Project purpose, leadership and governance

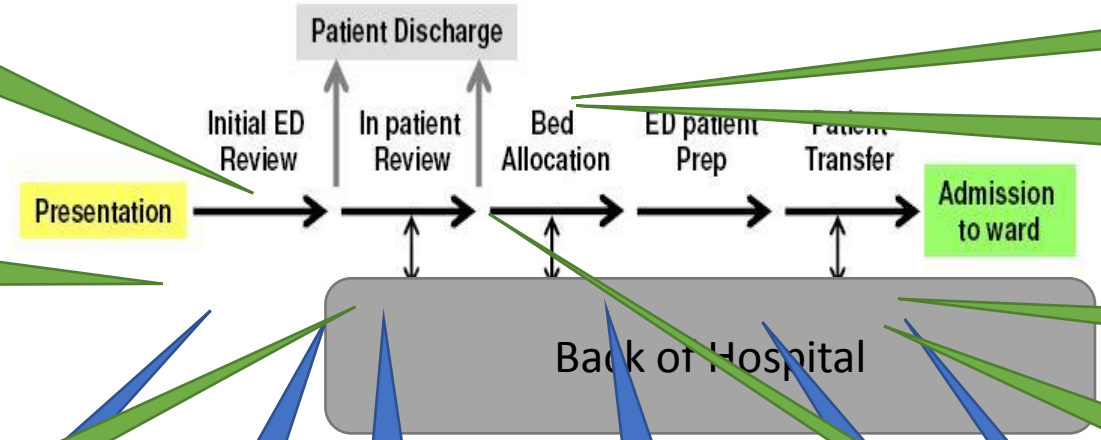
Project planning and positioning within the larger program of work

Managing the project and implementation of solutions – handover to BAU

System view of the problem and project – where does it fit within the organisations strategy, culture and operational priorities

System for obtaining information about the problem and to inform the project
Networks, experience
Evidence base

What are we trying to achieve? Safe timely access to care



Decrease time to ED decisions tests & referrals

ED Avoidance for patients better managed elsewhere

Improve appropriate ness or time to diagnostics

SB ED Decision Clinician Target 1:00

Test and referrals Target 1:00

Admit DC decision Target 2:00

Bed allocated and ready Target 3:00

Patient ready to depart Target 3:45

Patient [illegible] Target [illegible]

Increase ownership of ED patients - culture

Alternatives to inpatient ward admission

Bed management processes and communication

Reduce time to theatre/ endoscopy / procedures

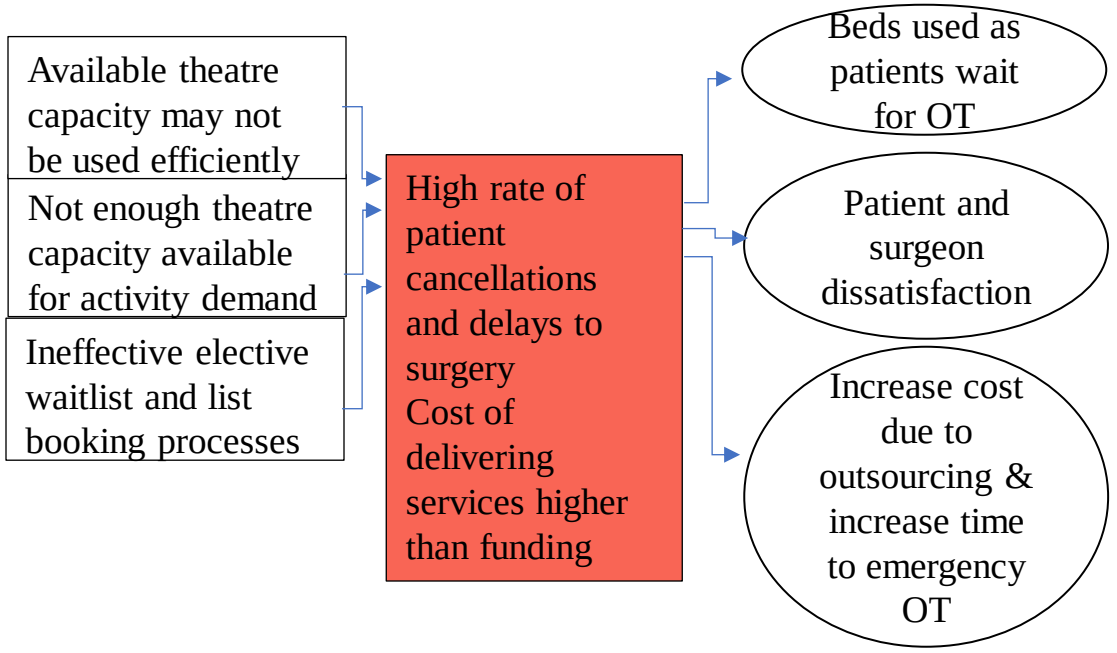
Access to inpatient beds – reduce LOS MDT, medically led plan for care and discharge

Inpatient specialty team access & decisions

This will be achievable for most patients – some need to stay in ED longer for clinical reasons

Cause consequence

- What is the problem you are trying to solve?
  - Useful tool – cause consequence diagram
- What is the degree of impact you are likely to have?
  - number and proportion (%) of patients you will impact
  - the degree of effect – inappropriate tests not ordered, days/hours/minutes reduction in length of stay
- What is the chain of logic that links your project to the problem?
- What is the chain of logic that links the problem to improving patient access to care?



Problem Statement – The surgical services at XXXH has a high rate of theatre case cancellation. Elective booking processes, theatre efficiency and capacity contribute to rework, increased cost of delivering services; delays to theatre with increased length of stay.
There is patient, MoH (funder), surgeon and anaesthetist dissatisfaction with surgery service performance and failure to meet expected KPI targets.

Positioning your projects within a program of work – balancing your project portfolio

- Include a mix of quick wins, medium and long term change projects
- Communication strategy should be a permanent fixture in your portfolio – JMO orientation etc
- Staging projects – fix upstream issues first – think about project dependencies
- Activities to understand and monitor patient and staff experience – don’t reinvent the wheel if there is information available – use the complaints data or Patient experience trackers
- Developing leadership, change capability and setting culture

The hard questions

Will your projects

- change process?
- change work practice at the patient clinician interface?
- improve the matching of demand and capacity?
- improve quality? – reduce defects or errors
- change culture?
- help tell the truth about performance?

- Improve flow by reducing waste
- Reduce queues– do todays work today
- Reduce the number of patient complaints and adverse events; increase patients departing ED within 4 hours
- Reduce variation
- Improve patient defined quality
- Increase transparency – make what is happening more transparent and able to be managed and monitored
- Increase understanding of what is happening when and why
- Implementing evidence based solutions

Project portfolio review

The Courage to Ignore the Obvious Wisdom of Turning Back

Analytics and performance measures

Measurement for improving the patient journey

NOT measurement for judgement

The science of improvement - How do I know when a change is an improvement?

Outline

- Importance of measuring
- When to measure – having a framework
- Creating a meaningful narrative
- Useful tools
- Strategies to use when you don’t know what to do

Science may be described as the art of systematic over-simplification.

Good tests kill flawed theories; we remain alive to guess again

Karl Popper

In God we trust

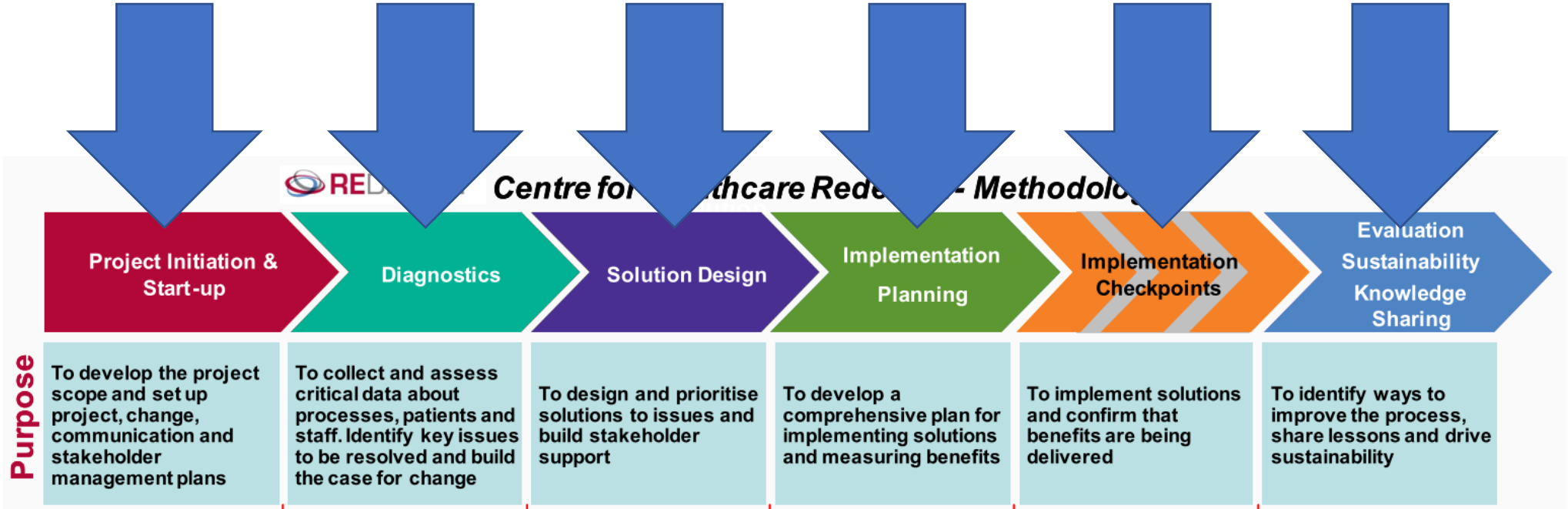
everyone else bring data

Why is measurement so important?

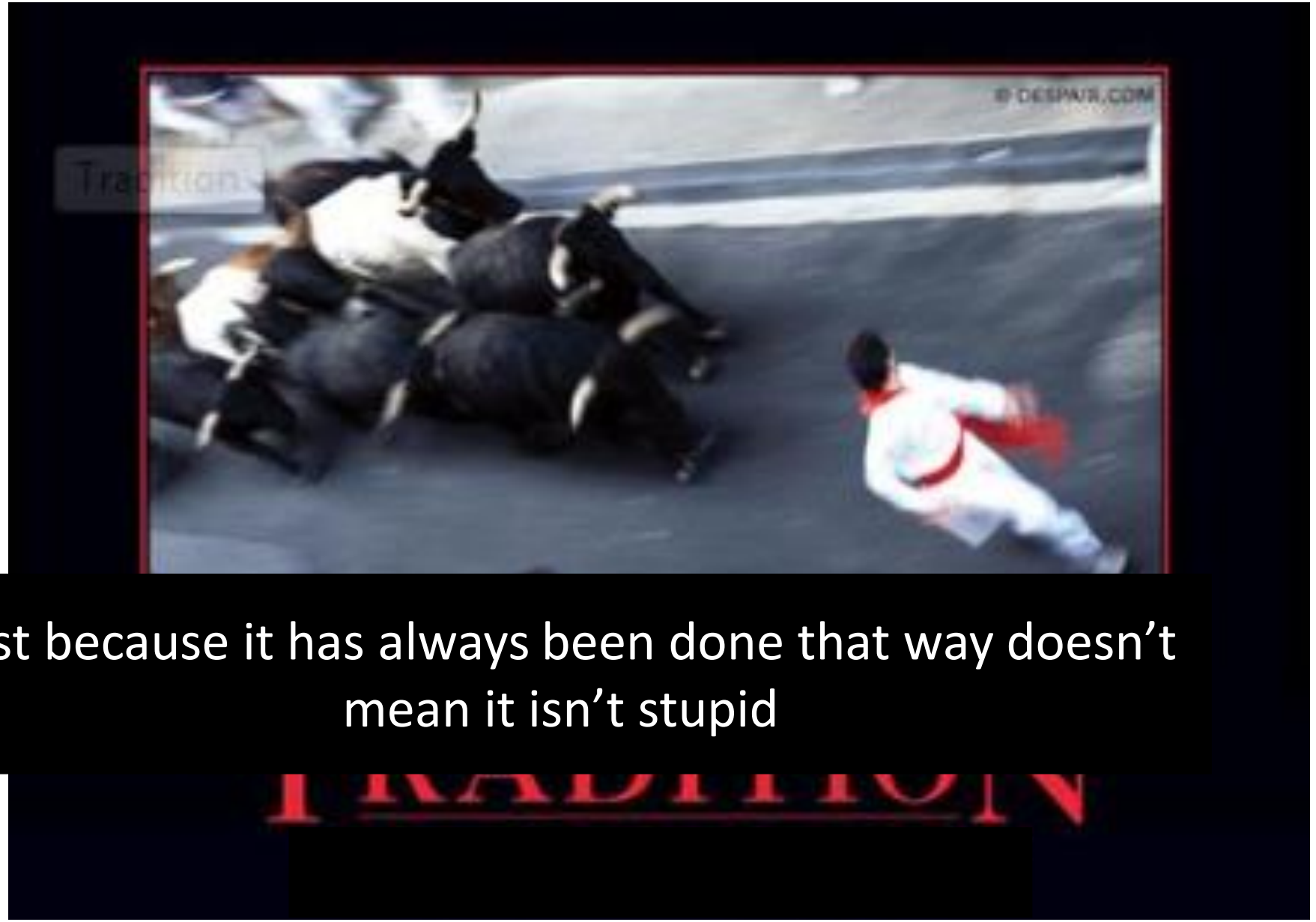
- Objectivity vs subjectivity
  - **objective** perspective is one that is not influenced by emotions, opinions, or personal feelings - it is a perspective based in fact, in things quantifiable and measurable
  - **subjective** perspective is one open to greater interpretation based on personal feeling, emotion, aesthetics, etc

1. **Did I do something?**
2. **Did it make a difference?**
3. **Was it an improvement?**

1. What is the problem?
2. What are the solutions?
3. Did I do something?
4. Did it make a difference?
5. Was it an improvement?
6. Are we performing to quality



Creating a meaningful narrative



Just because it has always been done that way doesn’t mean it isn’t stupid

Australian research - 12.5 million ED presentations & 11.6 million inpatient episodes

“.highly significant (p<0.001) linear inverse relationship between eHSMR and ..NEAT”
“eHSMR declined as total and admitted NEAT…rose to about 83% and 65% respectively.”

Clair Sullivan* MB BS(Hons), MD, FRACP[1,2,3]

Andrew Staib* MB BS, FACEM[1,2,3]

Sankalp Khanna PhD[4]

Norm M Good MSc[4]

Justin Boyle PhD, BEng[4]

Rohan Cattell PhD[5]

Liam Heiniger BSc(SciStat)(Hon)[4]

Bronwyn R Griffin BN, PhD, GdipEmerg[6,7]

Anthony Jr Bell FACEM, MPH, FRACMA[8,9]

James Lind BS BM, BMedSci, FACEM[10]

Ian A Scott FRACP, MHA, MEd[1,9]

Abstract

Objective: We explored the relationship between the National Emergency Access Target (NEAT) compliance rate, defined as the proportion of patients admitted or discharged from emergency departments (EDs) within 4 hours of presentation, and the risk-adjusted in-hospital mortality of patients admitted to hospital acutely from EDs.

Design, setting and participants: Retrospective observational study of all de-identified episodes of care involving patients who presented acutely to the EDs of 59 Australian hospitals between 1 July 2010 and 30 June 2014.

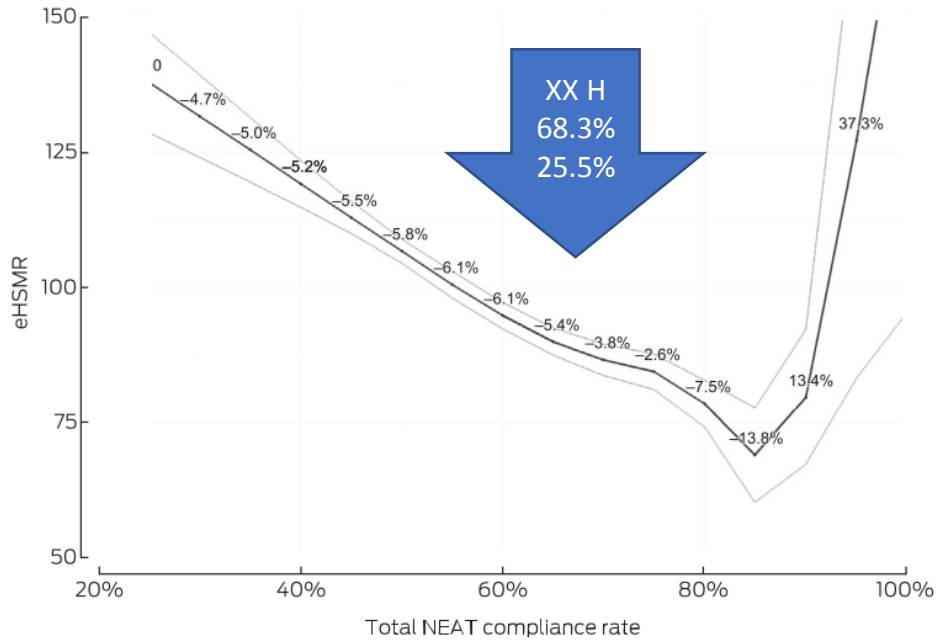
Main outcome measure: The relationship between the risk-adjusted mortality of inpatients admitted acutely from EDs (the emergency hospital standardised mortality ratio [eHSMR]: the ratio of the numbers of observed to expected deaths) and NEAT compliance rates for all presenting patients (total NEAT) and admitted patients (admitted NEAT).

Results: ED and inpatient data were aggregated for 12.5 million ED episodes of care and 11.6 million inpatient episodes of care. A highly significant ($P < 0.001$) linear, inverse relationship between eHSMR and each of total and admitted NEAT compliance rates was found; eHSMR declined to a nadir of 73 as total and admitted NEAT compliance rates rose to about 83% and 65% respectively. Sensitivity analyses found no confounding by the inclusion of palliative care and/or short-stay patients.

Conclusion: As NEAT compliance rates increased, in-hospital mortality of emergency admissions declined, although this direct inverse relationship is lost once total and admitted NEAT compliance rates exceed certain levels. This inverse association between NEAT compliance rates and in-hospital mortality should be considered when formulating targets for access to emergency care.

MJA 204 (9) ▪ 16 May 2016

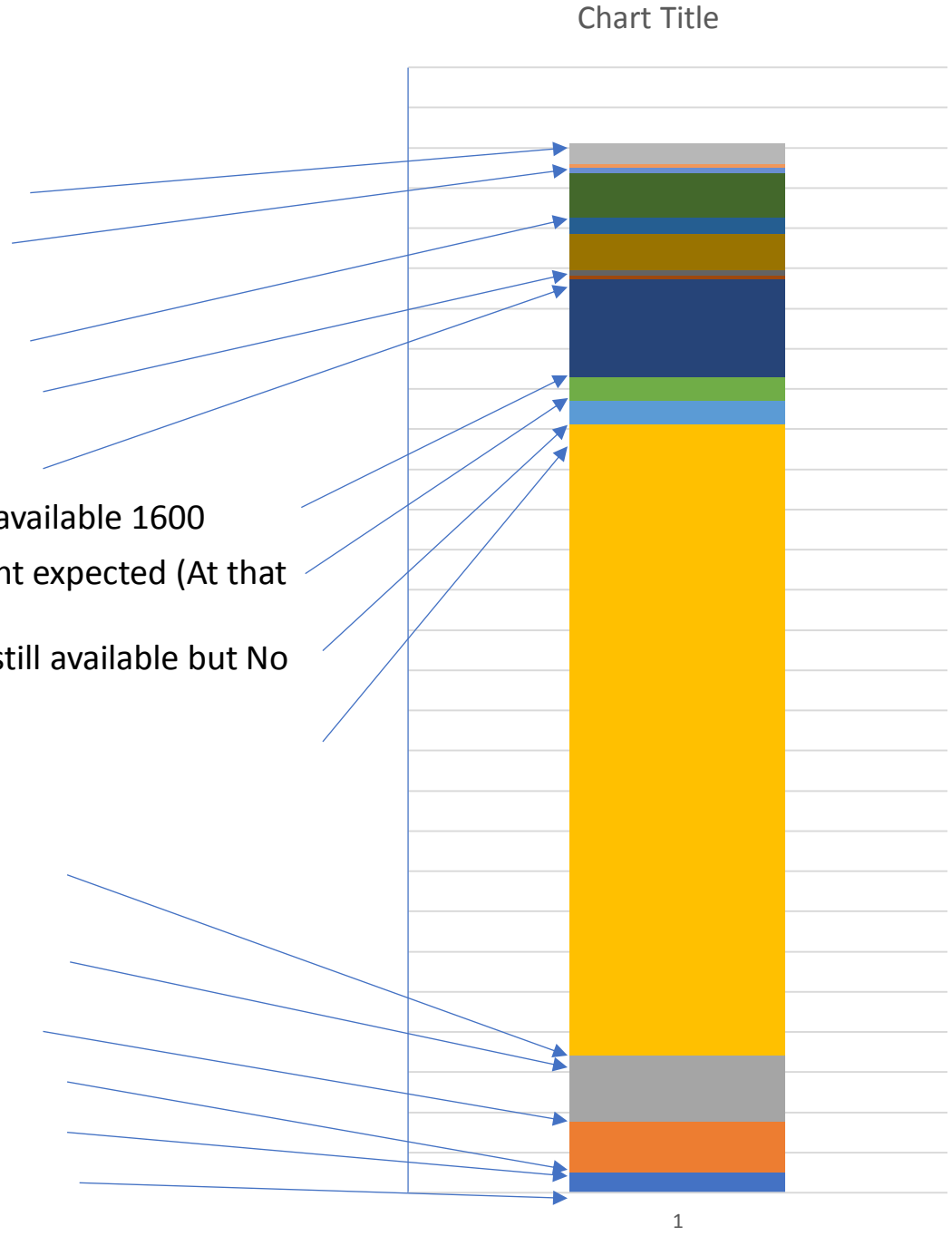
1 Total National Emergency Access Targets (NEAT) compliance and hospital standardised mortality ratio for patients admitted from emergency departments (eHSMR) for 59 Australian hospitals, 1 July 2010 – 30 June 2014



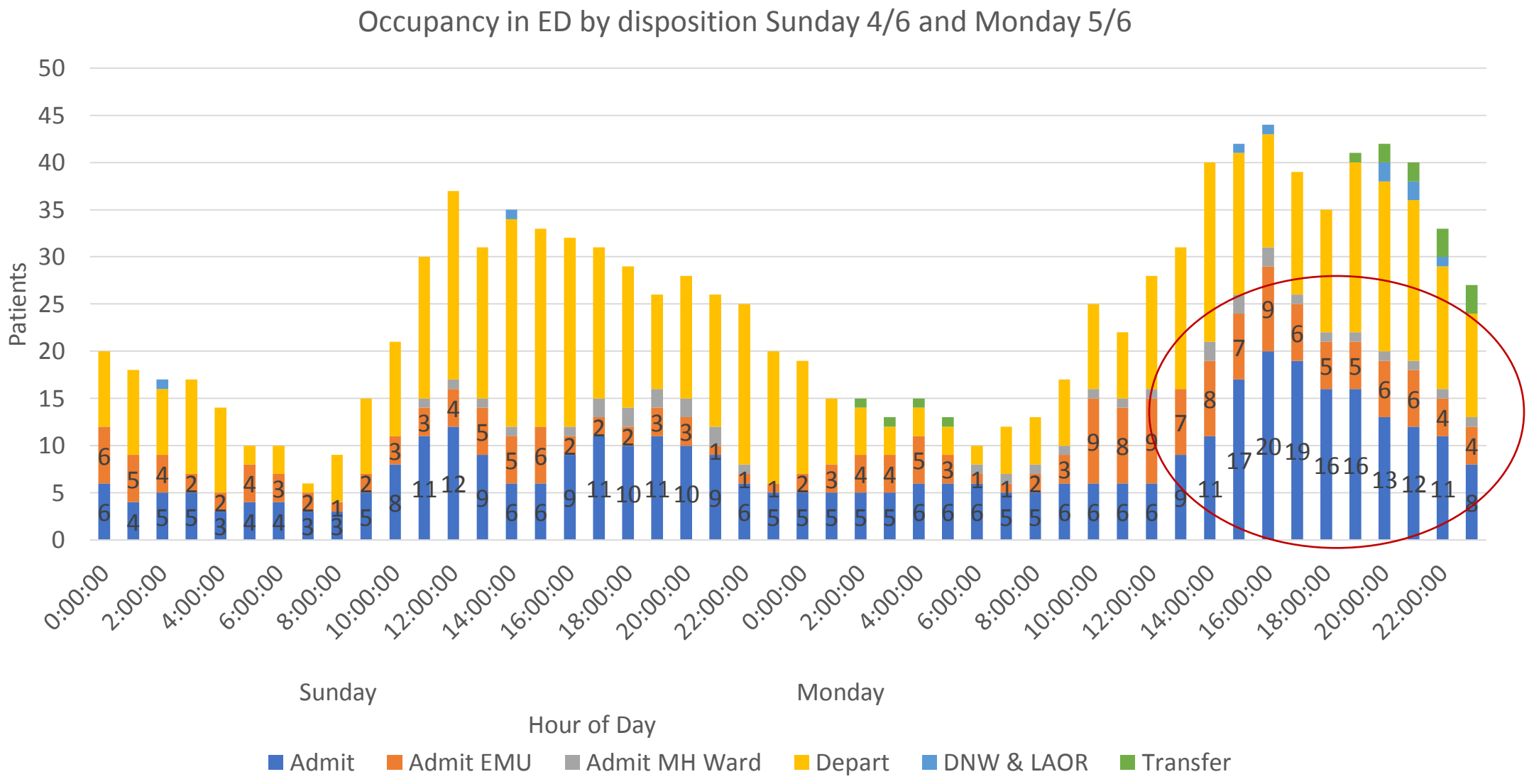
$P < 0.001$ for regression (F-test). Pale lines, 95% confidence intervals; graph labels, change in eHSMR per five percentage point change in NEAT. ◆

Patient story

- Sunday 10:12 75 yo walked in to ED with shortness of breath
- 10:23 triaged Cat 3 to acute stream - 10:47 brought into Acute bed 9 -
- 11:09 BTF Red ECG completed
- 12:02 seen by JMO and 12:27 pathology requests
- 13:20 referred to cardiology
- 13:25 decision to admit under cardiology – bed request at 13:29
- 13:35 Requested CTB – porter called 14:05, departed to CT at 14:08 – result available 1600
- Bed allocated at 16:35 – 16:45 CCU refused to accept patient as lifenet patient expected (At that time ED had 2 Bat calls – Lifenet patient and acutely psychotic patient)
- 17:10 lost the bed to life net patient – CCU had one empty bed and hot bed still available but No bed status
- 17:51 Decision made patient OK for 3N – bed manager informed - no beds
- 06:00 Commenced CPAP
- Monday 8:53 Cardiology review
- 10:12 Patient deteriorating – ICU consult
- 10:29 ICU bed allocated
- 11:45 ICU advised bed and ward ready
- 11:50 patient deteriorated – unable to transfer immediately
- 12:10 patient ready for transfer - porter called
- Monday 12:15 patient departed for ward



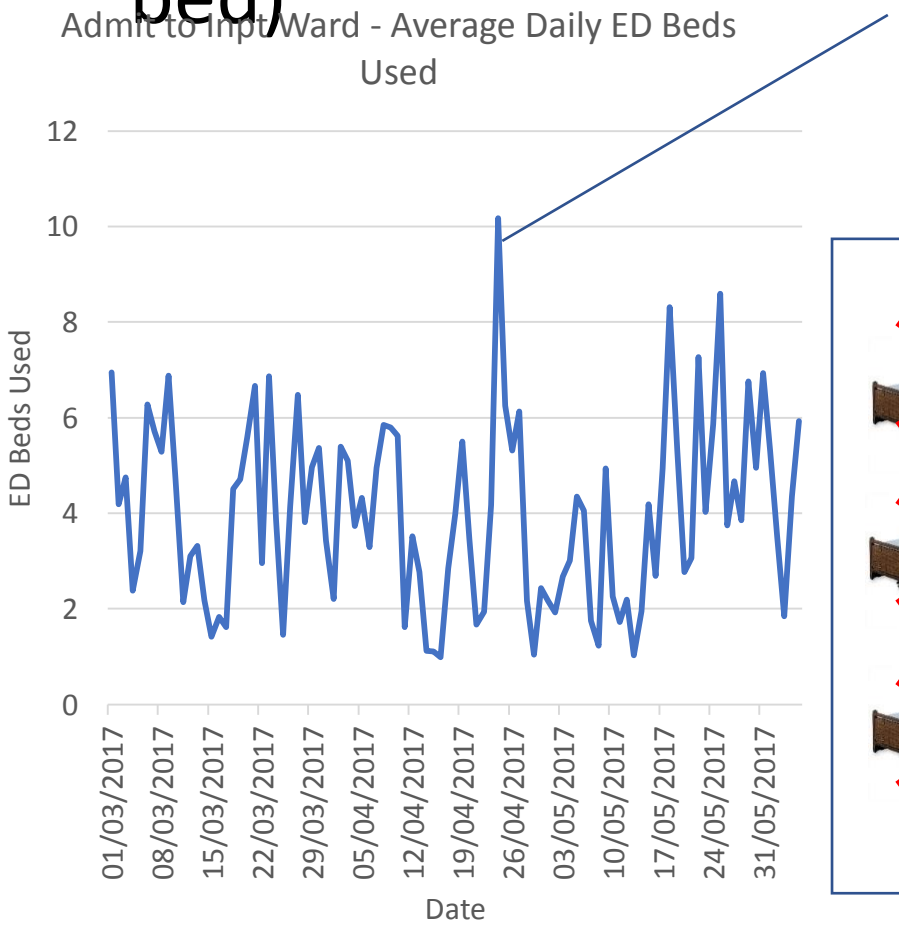
At 1700 Monday 18 patients were waiting for an inpatient bed



Data Source: FN005 1/3/17-5/6/17

What is the impact of long delays for inpatient beds?

In the last 3 months the equivalent of 4 ED beds have been used 24/7 by admitted inpatients waiting for a bed (does not include patients who go to EDSSU waiting for an inpatient bed)



Some days are much worse – 24/4/17 the equivalent to 10 beds were used 24/7 by admitted inpatients waiting for a bed

Data Source: FN005 1/3/17-5/6/17

At 1700 Monday 18 patients had completed their ED journey and were waiting for an inpatient bed
At this time there are still 10 patients an hour arriving at ED for assessment and treatment/sorting

- Acute surgery, psychiatry and cardiology use the most ED beds

**Excludes ESSU patients*

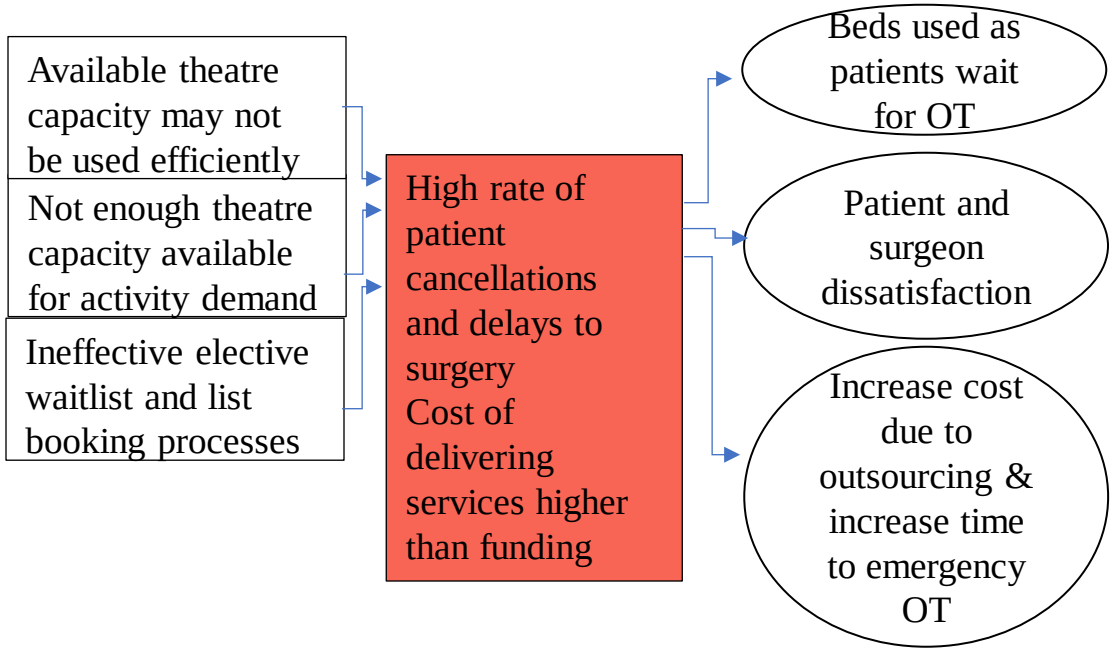
Data Source: FN005 1/3/17-5/6/17

Break down your measures to improve validity

Focus	KPI	Sub measures
Improving ED LOS for non-admitted patients	Non-admitted ETP	Time stamps in FirstNet - Arrival to triage time, triage to decision making clinician seen, clinician seen to ready to depart, ready to depart to departed Time from inpatient team referral to review, time from review to depart. Time from test request to results available - imaging and/or pathology • Request complete • Request received/recorded received by imaging • Patient sent for • Patient arrives in imaging department • Imaging commenced • Imaging completed • Interim results available • Final results available • Results reviewed by ED/inpatient team
Improving ED LOS for admitted patients	Admitted ETP	As above plus Time from inpatient team review to bed request Time from bed request to bed ready, time from bed ready to depart
Improving patient experience	Patient complaints	Patient satisfaction measures (targeted survey) Non-value adding time for patients – e.g. Time to first seen by clinician Patient stories - strengths and issues Patient incidents
Matching demand and capacity	Emergency surgery cases	Bookings and sessions by day of week and hour of day Other services – radiology and pathology Measures of Capacity – Emergency theatre sessions, Nurses (scrub, anaesthetics,recovery) radiographer, CSSD, number of instrument trays, DSU beds, recovery spaces, anaesthetists

Cause consequence – link to measures

- Process
- Impact
- Demand
- Capacity
- Outcome



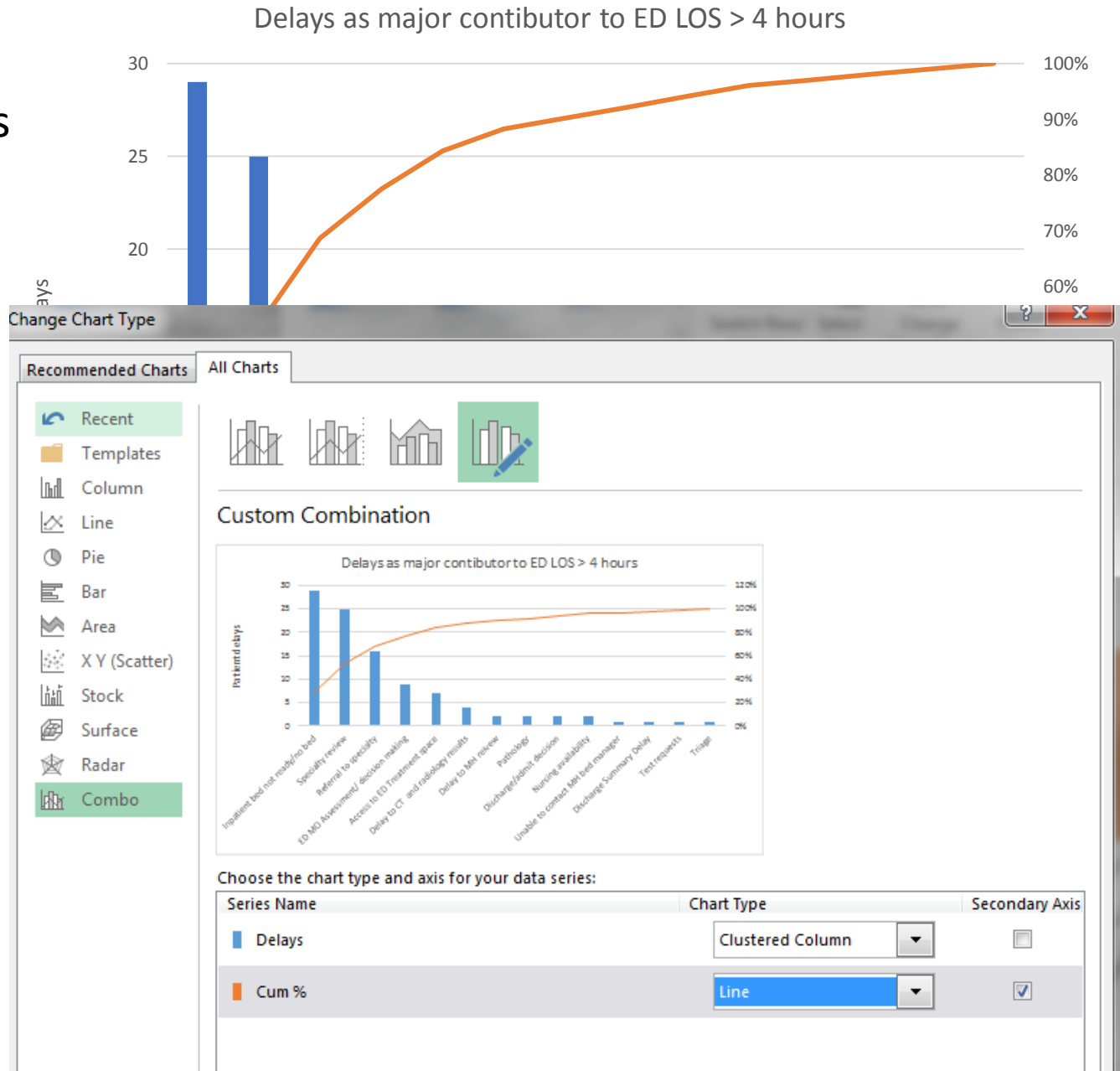
Problem Statement – The surgical services at XXXH has a high rate of theatre case cancellation. Elective booking processes, theatre efficiency and capacity contribute to rework, increased cost of delivering services; delays to theatre with increased length of stay.

There is patient, MoH (funder), surgeon and anaesthetist dissatisfaction with surgery service performance and failure to meet expected KPI targets.

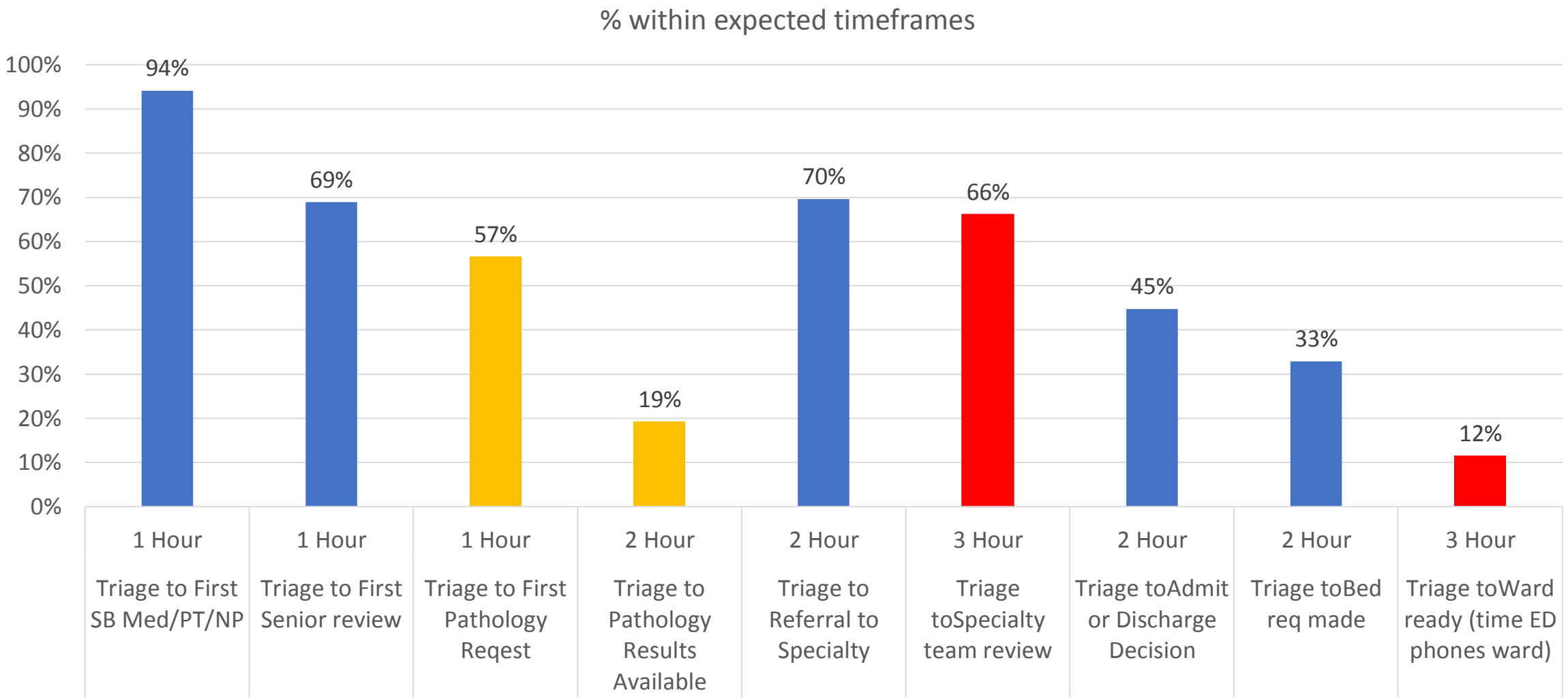
Pareto Chart

- Use to focus improvement effort on areas having the greatest impact
- It's a fancy frequency histogram – use for data you can group into categories and count
- Beware "out of scope"– make sure you are counting the right things

Delays	Delays	Cum %	Cum Count
Inpatient bed not ready/no bed	29	28%	29
Specialty review	25	53%	54
Referral to specialty	16	69%	70
ED MO Assessment/ decision making	9	77%	79
Access to ED Treatment space	7	84%	86
Delay to CT and radiology results	4	88%	90
Delay to MH reivew	2	90%	92
Pathology	2	92%	94
Discharge/admit decision	2	94%	96
Nursing availability	2	96%	98
Unable to contact MH bed manager	1	97%	99
Discharge Summary Delay	1	98%	100
Test requests	1	99%	101
Triage	1	100%	102

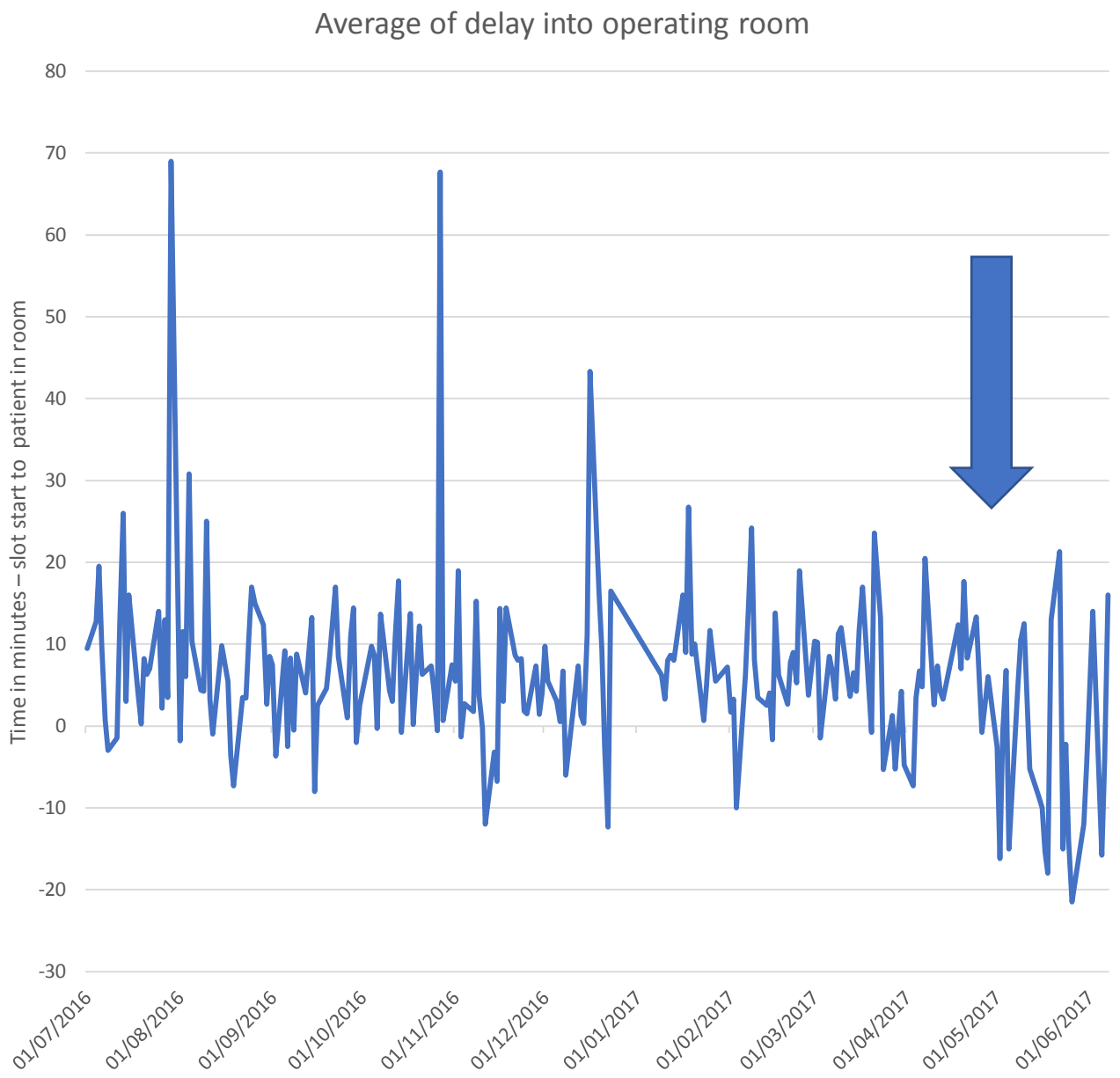


Which part of the process is least capable of meeting patient and team expectations?

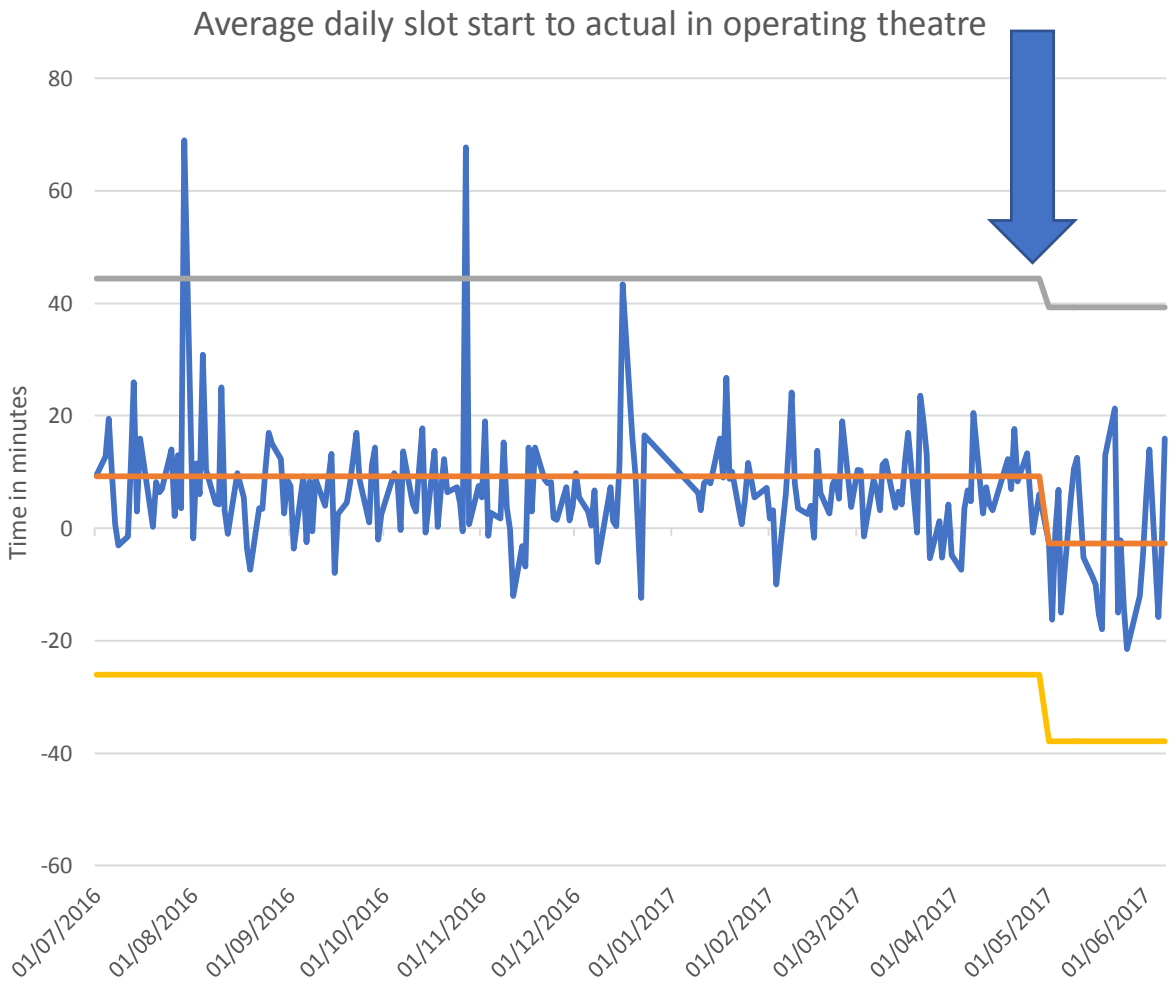


Process control chart

- Use to monitor performance over time and determine process stability – ie how much variation there is in the process
- It's a fancy time series graph – use it for "time to…." data to see if the changes you have made are an improvement

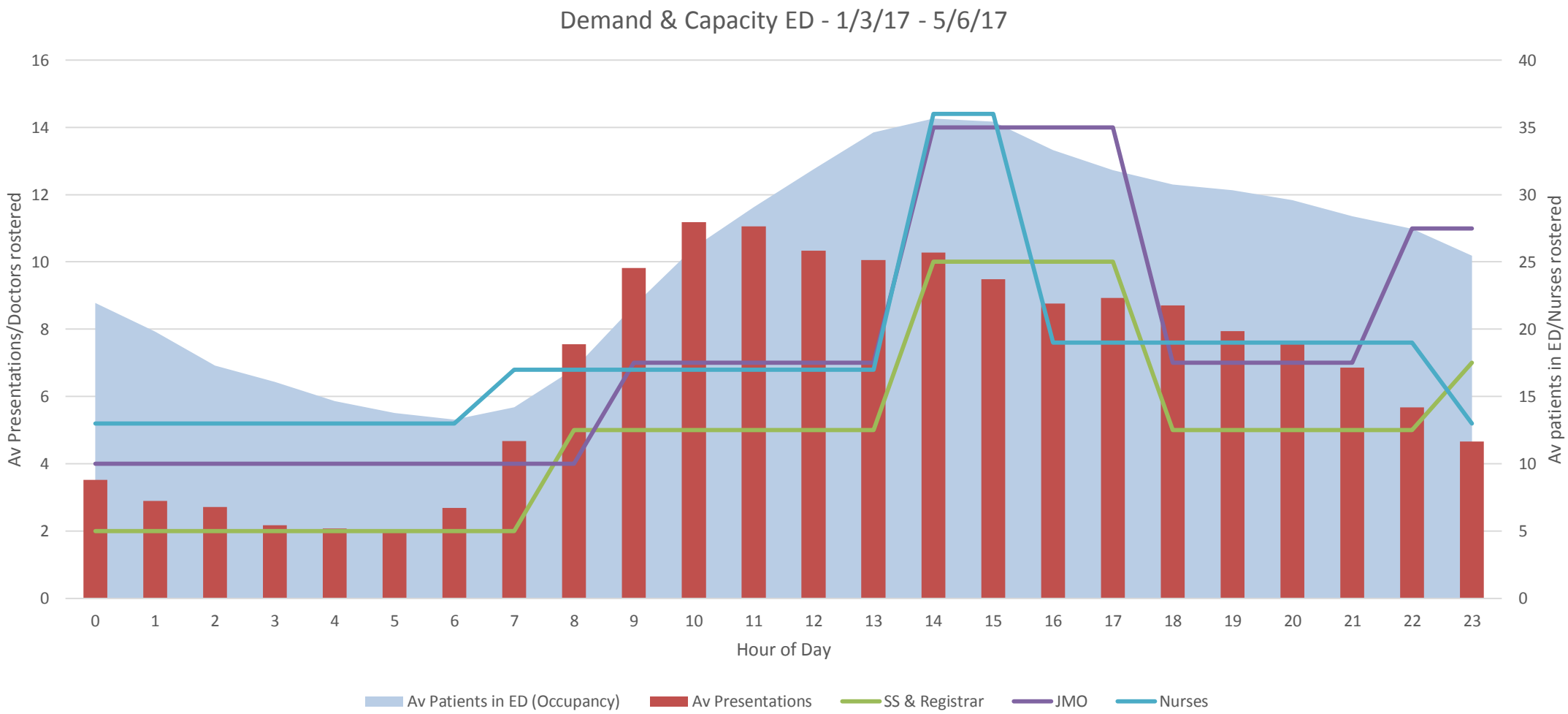


Process control chart (2)



Date	Average of Slot to in room	Mean	2+SD	2-SD
1/07/2016	9.5	9.2	44.4	-26.0
4/07/2016	12.8	9.2	44.4	-26.0
5/07/2016	19.5	9.2	44.4	-26.0
6/07/2016	9.666667	9.2	44.4	-26.0
7/07/2016	0.75	9.2	44.4	-26.0
8/07/2016	-3	9.2	44.4	-26.0
11/07/2016	-1.5	9.2	44.4	-26.0
12/07/2016	12.75	9.2	44.4	-26.0
13/07/2016	26	9.2	44.4	-26.0
14/07/2016	3	9.2	44.4	-26.0
15/07/2016	16	9.2	44.4	-26.0
18/07/2016	4.25	9.2	44.4	-26.0
19/07/2016	0.25	9.2	44.4	-26.0
20/07/2016	8.25	9.2	44.4	-26.0
21/07/2016	6.333333	9.2	44.4	-26.0
22/07/2016	7	9.2	44.4	-26.0
25/07/2016	14	9.2	44.4	-26.0
26/07/2016	2.2	9.2	44.4	-26.0
27/07/2016	13	9.2	44.4	-26.0
28/07/2016	3.5	9.2	44.4	-26.0
26/04/2017	8.25	-0.75	9.217028	44.4	-26.0
28/04/2017	6.333333	6	9.217028	44.4	-26.0
1/05/2017	7	-2.6	9.2	-2.7	44.4	39.3	-26.0	-37.9
2/05/2017	14	-16.2	9.2	-2.7	44.4	39.27991	-26.0	-37.91
3/05/2017	2.2	-0.75	9.2	-2.7	44.4	39.27991	-26.0	-37.91
4/05/2017	13	6.8	9.2	-2.7	44.4	39.27991	-26.0	-37.91
5/05/2017	3.5	-15	9.2	-2.7	44.4	39.27991	-26.0	-37.91
8/05/2017		5		-2.7		39.27991		-37.91
9/05/2017		10.5		-2.7		39.27991		-37.91
10/05/2017		12.5		-2.7		39.27991		-37.91
11/05/2017		3.6		-2.7		39.27991		-37.91
12/05/2017		-5.25		-2.7		39.27991		-37.91
15/05/2017		-8.6		-2.7		39.27991		-37.91

Staffing capacity and demand



Things to think about

- Include both qualitative and quantitative measures
- Not too many! So choose wisely
  - Does it have validity
  - Doees the team think it is important
  - Does it truly represent what you want to measure
- Need to establish a baseline
- Identify links to existing measurement strategies
- Whose responsible for monitoring and reporting for each project
- Use existing reports wherever possible for monitoring project implementation and establishing Business as Usual – eg QlikView
  - Review and improve existing reports for relevance – as you learn and as the organisation matures you will change which data points you need

1. Before you show your data – check its validity
2. Play with Excel
3. Learn how to use pivot tables
4. Before you show your data – check its validity

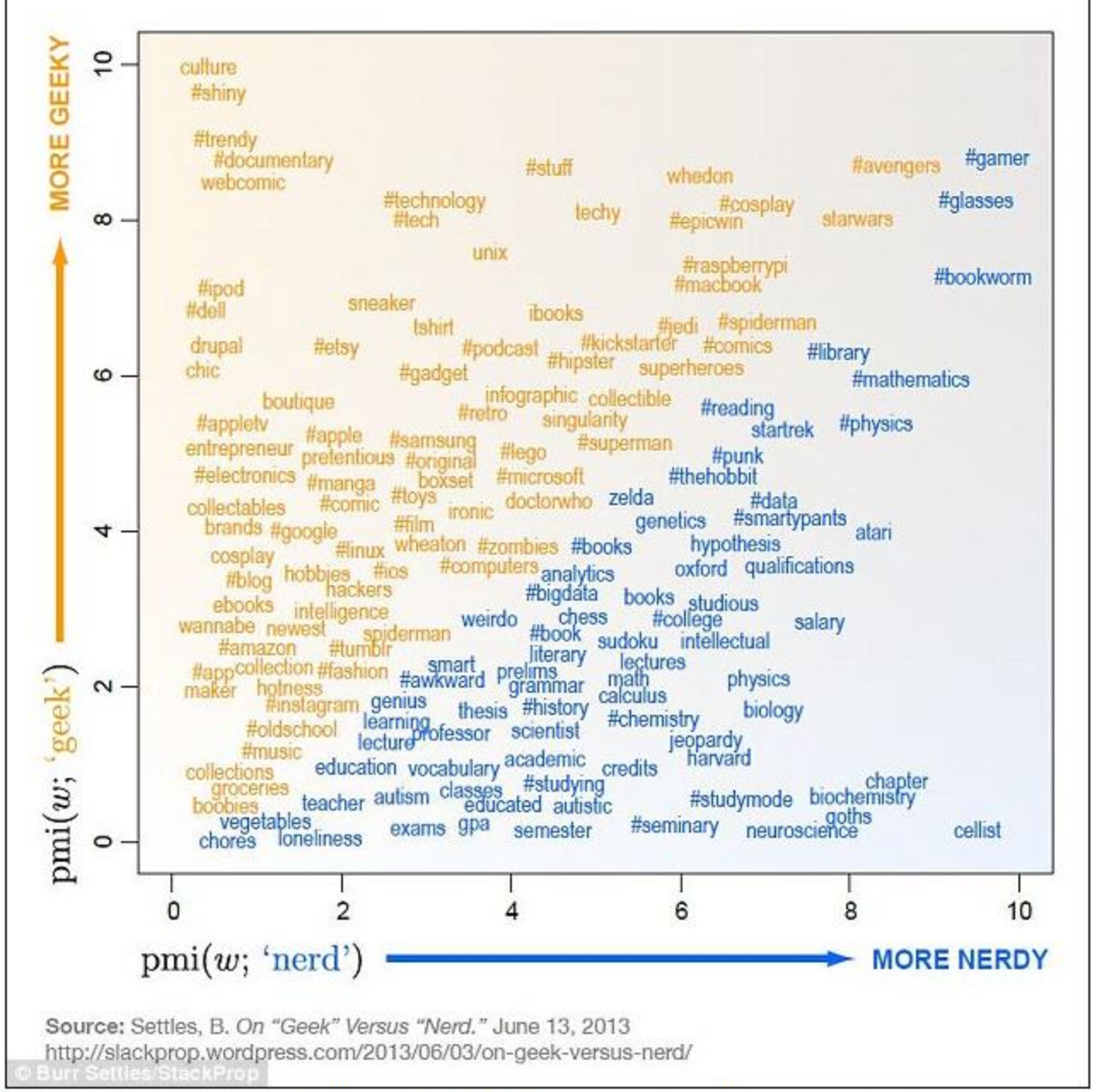
Strategies to use when you don’t know what to do

- Google
- Excel Help
- Minitab (or other statistics software help)
- Phone a friend
- Use someone else's analysis – MoH; BHI; Health Round Table
- Google
  - Blogs
  - UTube
  - Statistics blogs - http://blog.minitab.com/blog/the-statistics-of-science
- WOHP team (which includes some geeks)

Louise Kershaw

Loker@doh.health.nsw

0410 552 568



Pittsburgh engineer Burr Settles studied the language of 2.6 million tweets to discover the geekiest and nerdiest words and topics. The further along the horizontal axis, pictured, a word appeared, the more nerdy it was. The higher a word appeared on the vertical, y-axis, the more it was associated with being a geek