

Fundamentals of measurement for improvement

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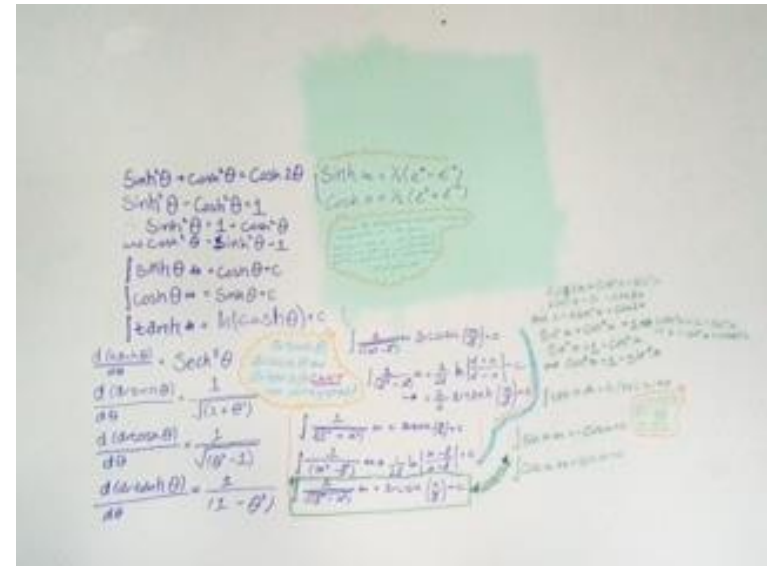
○ What this session will cover

- What are measurement for accountability and measurement for improvement?
 - What types of data are used for each purpose?
 - Characteristics of successful measurement strategies
 - Practical examples from the Patient and Family Centred Care programme, to show how simple measurement for improvement can drive change in patients' experiences.
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What does the
term
measurement
mean to you?

○ What does the term measurement mean to you?

- Measuring for accountability
- Data collected for someone else
- Brings people out in a rash
- People don't believe the data
 - It's not like that round here
 - It's out of date
 - It's not measuring the right things
 - I don't understand it
 - I am not confident with statistics
 - The sample size isn't big enough to "prove" anything





Why measure?

○ Goals for measurement

External

- To facilitate benchmarking
- To inform commissioning decisions
- To help patients choose providers
- To ensure public accountability

Internal

- To improve quality and outcomes of care
 - To understand problems in care delivery
 - To inform the design of services
 - To monitor impact of service changes
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○ Why measure?

- **Accountability**

“Data gathered so managers and quality assurance / scrutiny organisations can assess performance of services against agreed targets”

Often involves comparisons and benchmarks

- **Improvement**

“Data gathered so clinical staff and others can identify the need for improvement, testing changes, monitor the outcome of improvement activity, and determine long term progress”.

Often involvement tracking processes and outcome for the same site over time

○ Approaches to measurement

➤ Quantitative methods

- Structured surveys
- Routine data (eg HES, QOF)
- Audits (eg casenotes)

➤ Qualitative methods

- Focus groups
 - Interviews
 - Observations
 - Secondary sources
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○ Quantitative data – the only show in town?

- Quantitative data measures what is easy to measure
 - Can lack nuance and richness
 - Quality failures are often preceded by a long period of incubation – soft intelligence can help
 - There is a big difference between what is known formally and informally (e.g. Stafford inquiry) – the difference between local knowledge and managerial knowledge
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○ Addressing lack of confidence in soft intelligence

- Aggregation
 - Triangulation
 - Instrumentalisation (using narrative to lend emotional force to an argument)
-

○ Types of measures

- **Outcome measures** reflect the impact on a patient and demonstrate the end result of doing things
 - **Process measures** reflect the things that you do (processes) and how systems are operating. Commonly process measures show how well you are delivering a change that you want to make.
 - **Balancing measures** show whether unintended consequences have been introduced elsewhere in the system. For example a common balancing measure is readmission rate when measuring length of stay as an outcome.
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○ Examples of process and outcome measures

Processes

- Subjective (e.g. pain was controlled)
- Objective (e.g. length of time waited)
- Observations of others' behaviour (e.g. doctor, nurse, other staff)

Outcomes

- Physical (e.g. climbing stairs)
 - Psychological (e.g. mood)
 - Subjective (e.g. knowledge)
 - Self-management capabilities (e.g. self-efficacy)
 - Health-related behaviours (e.g. diet, exercise)
 - Use of health services (e.g. number of admissions)
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○ Measures for accountability – some examples

- Waiting times
 - Cancellations
 - Friends and family test
 - Ambulance response times
 - Cancer waits
 - Referral to treatment times
 - Overall patient experience scores
-

○ Measures for improvement

- Are derived using a “logic model” – why you think the measure you have selected will reflect the improvement you have made
 - Reflect the place and time where the improvement has been made
 - Relate to the specifics of the improvement intervention
 - Reflect a clear view of what “better” looks like (there is an improvement goal)
 - Will show whether a change is an improvement
 - Are meaningful to the clinical team
 - Can be based on small data sets, fed back rapidly
 - But can be challenging to collect
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○ Measurement for improvement

Key Ingredients for Improvement



A Clear Aim – Measurement-



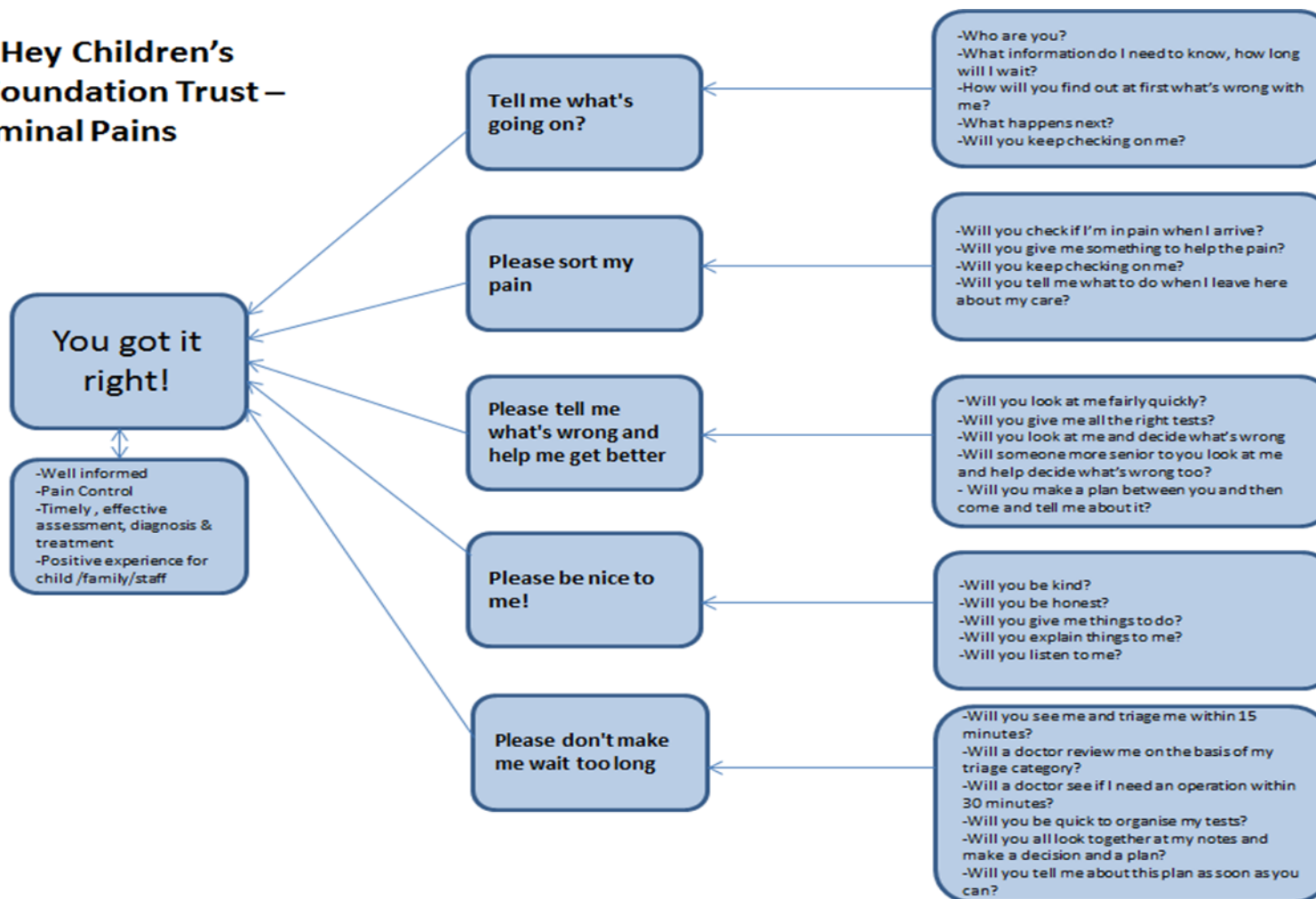
Action

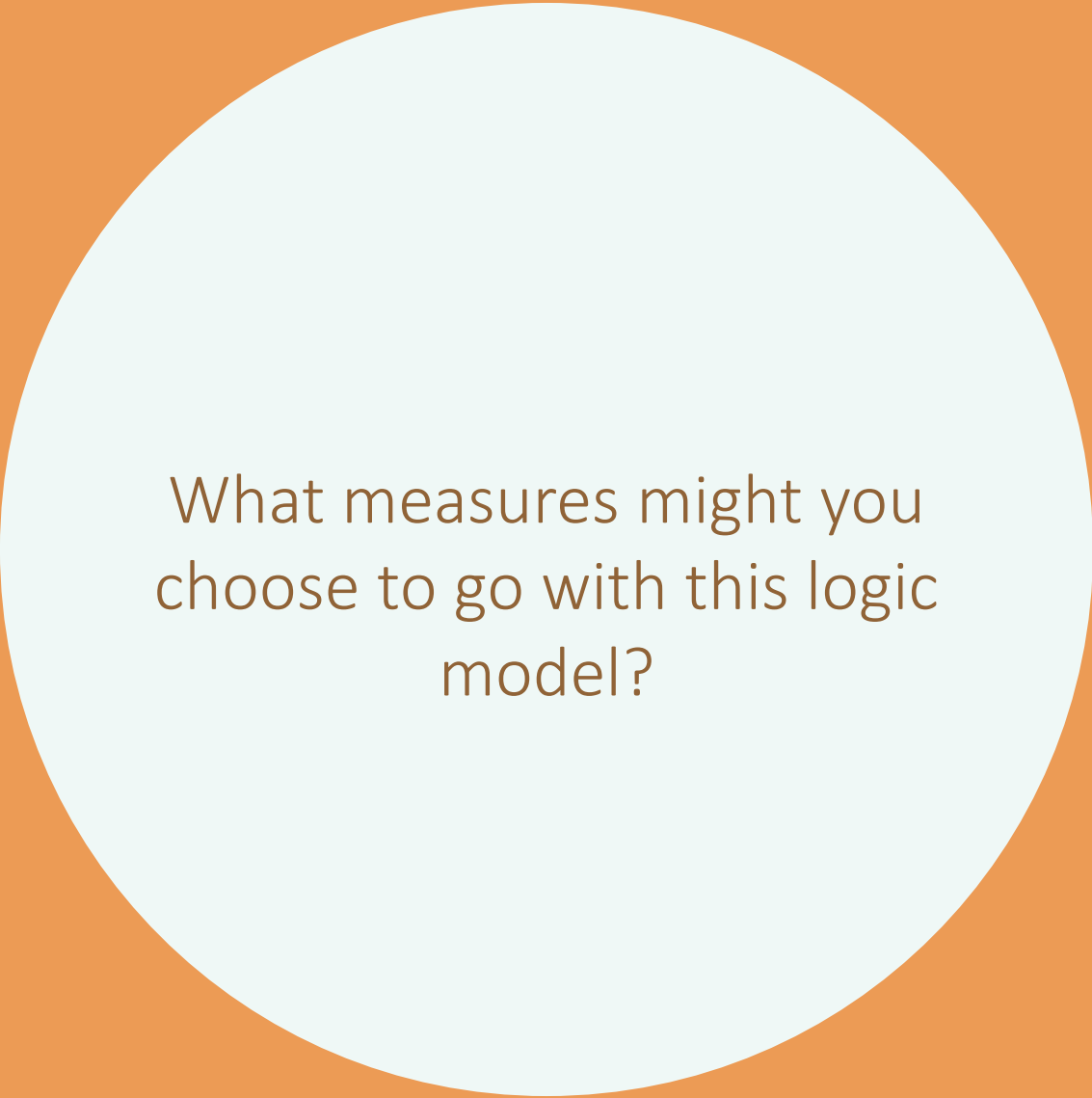


A method for improvement


○ Example logic model

Alder Hey Children's NHS Foundation Trust – Abdominal Pains



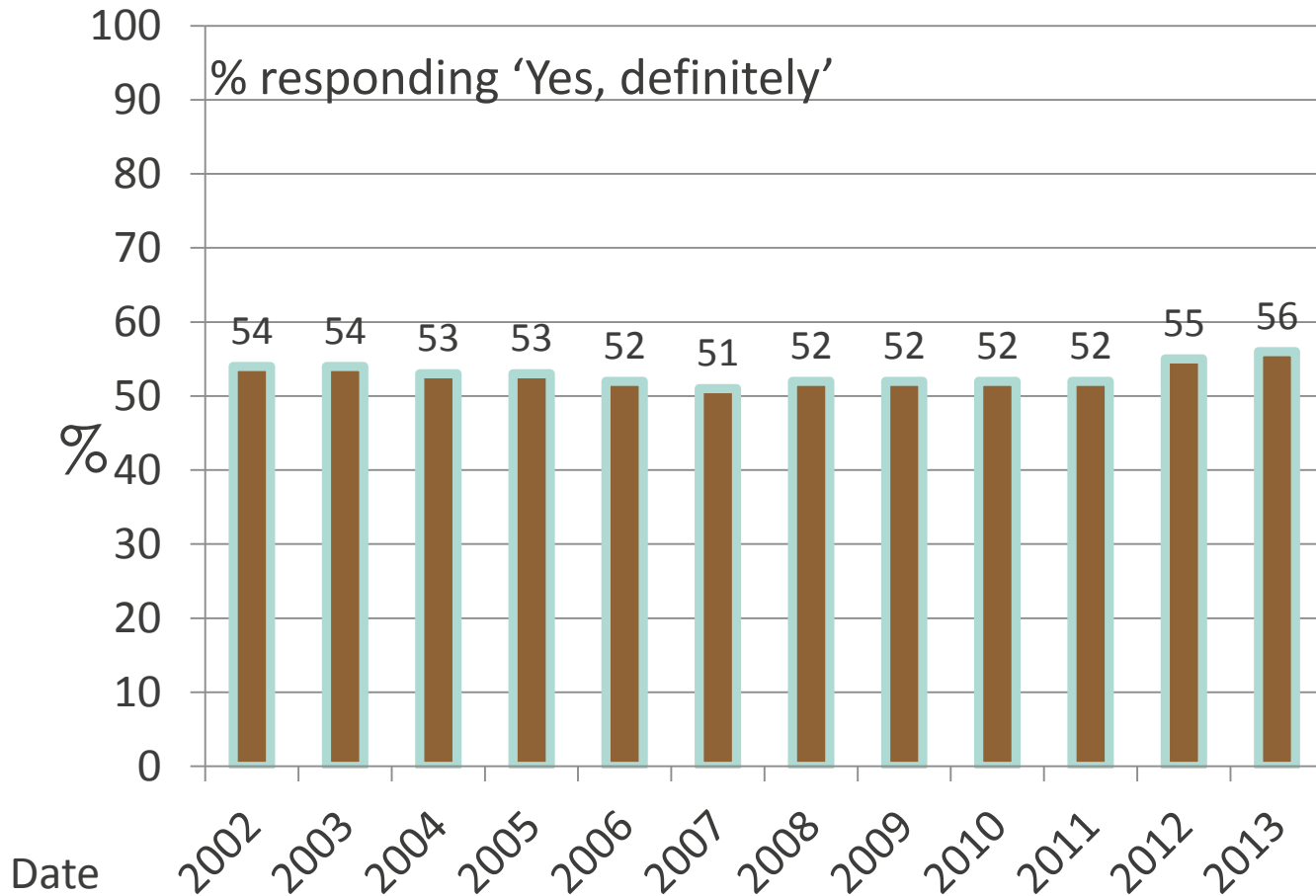


What measures might you
choose to go with this logic
model?



Can accountability
measures be used
for improvement?

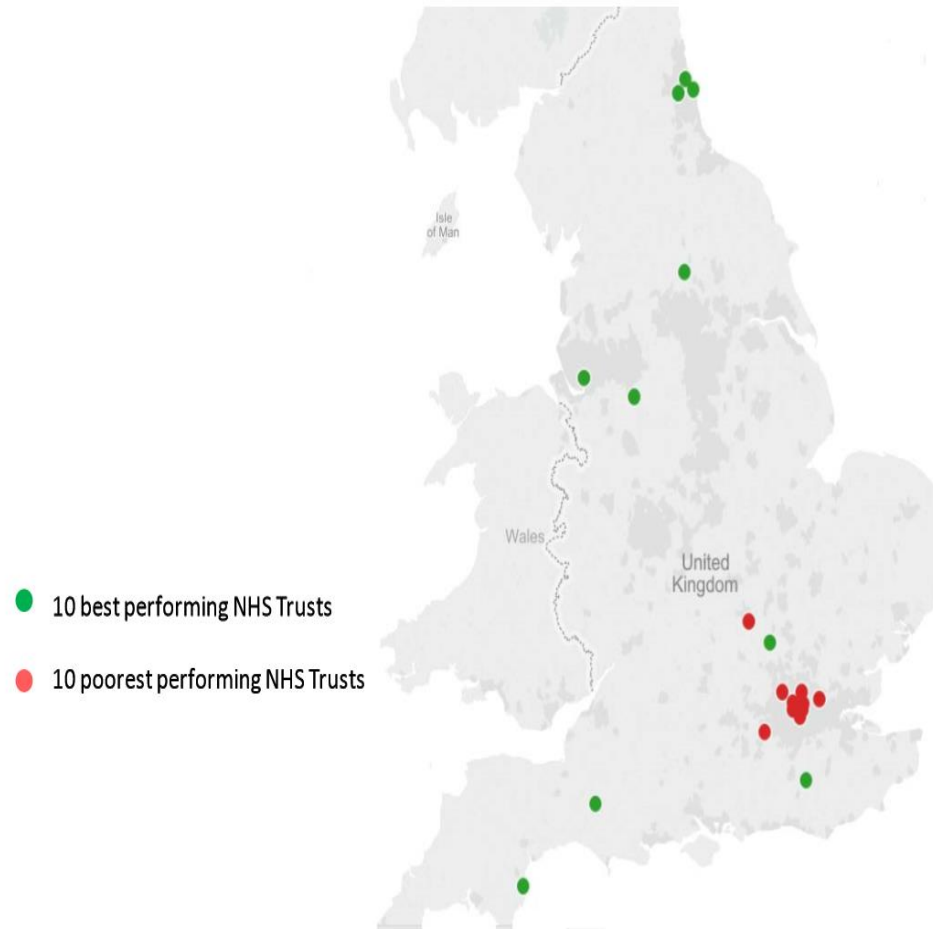
○ Were you involved as much as you wanted to be in decisions about your care and treatment?



Source: NHS inpatient surveys

○ Variations in cancer patients' experience

10 best and 10 poorest performing NHS trusts in England, 2014



Source: Analysis by Macmillan Cancer Support based on NHS England's National Cancer Patient Experience Survey 2014.

○ Can accountability measures be used for improvement?

Sometimes. But...



- Data can be out of date before you get them
 - Don't believe the data
 - Doesn't **measure** what you want to measure or improve
 - Not specific enough
 - Not enough to go on
 - Hit the target but miss the point
-

○ Measurement for improvement

Consider....

- What is the purpose of measurement in improvement work?
 - Who are you collecting measures for?
 - How will they help you?
 - When measures haven't been helpful – what has been wrong with them?
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Learning from failure as well as success

- <https://www.youtube.com/watch?v=HcO0YeZfJyU>

The screenshot shows a web browser window with the address bar displaying the URL: <http://qir.bmj.com/content/4/1/u206468.w2612.full?sid=6c241bf4-f39f-487d-93da-d227dc52d3f0>. The browser's tabs show several open pages, including "Fwd: Fw: email no. 3 about Nik...", "Bev presentation HOPE networ...", and "BMJ Reducing avoidable time de...". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The browser's toolbar shows various icons for search, bookmarks, and other functions. The browser's status bar at the bottom shows the system clock as 22:30 on 29/10/2015.

The main content area of the browser displays the BMJ Quality Improvement Reports website. The page title is "BMJ Quality Improvement Reports". The page content includes a search bar, a navigation menu with links to "Latest content", "Archive", "Browse by topic", "About the journal", "Submit a report", "Jobs", and "Help". The "Latest content" section shows the article "Reducing avoidable time delays in immediate medication administration - learning from a failed intervention" by Sachin Nagar and Nicola Davey. The article is published in the BMJ Quality Improvement Report 2015;4, with the DOI:10.1136/bmjquality.u206468.w2612. The article is available in full text, PDF, and Supplementary Material formats. The article is also available as a service, with options to "Email this link to a friend", "Alert me when this article is cited", "Alert me if a correction is posted", "Alert me when eletters are published", and "Article Usage Statistics".

The browser's taskbar at the bottom shows various application icons, including the Windows Start button, Internet Explorer, Google Chrome, and other applications. The system clock at the bottom right shows the time as 22:30 on 29/10/2015.

○ Sample measures – Musgrove Park stroke team

Measure No	Measure Name	Measure Type	Calculation details			Goal	Data Collection Guidance (Sample, frequency, data source etc)
			Numerator	Denominator	Measure		
1	Direct admission to stroke unit	Process measure	Stroke patients directly admitted to stroke unit	All stroke patients	Percentage numerator/denominator *100	80% by December 2011	Data collected on weekly basis for trust board, with exception reporting. Data reported on monthly basis to SHA
2	Patients spend 90% of their time on stroke unit	Outcome measure	Stroke patients spending 90% of admission on stroke unit	All stroke patients	Percentage numerator/denominator *100	80% by December 2011	Data collected on weekly basis for trust board with exception reporting. Data reported to SHA on monthly basis
3	Patients receiving all 9 key quality indicators	Process measure	Number of patients receiving all 9 key quality indicators	All stroke patients	Percentage =(numerator/denominator)*100	30% improvement from current performance by December 2011	Data collated on monthly basis as part of stroke performance report to SHA
4	Proportion of patients with continence plan	Process measure	Number of patients with continence plan	All stroke patients	Percentage numerator/denominator *100	100% patients with continence plan by December 2011	Data collated on monthly basis as part of stroke performance report to SHA
5	Patients rating the quality of care	Outcome measure			Median patient satisfaction score	Aim for median satisfaction score of 9 by Dec 2011	Data collected from exit cards
6	Patients feel involved in their care	Outcome measure			Median score on scale of 1-10	Aim for median score 9 by Dec 2011	Data collected from exit cards
7	Patients treated with dignity & respect	Outcome measure			Median score on scale of 1-10	Median score 9 by December 2011	Data collected from exit cards
8	Staff satisfaction	Outcome measure	Proportion of staff who feel supported at work	All staff completing questionnaire	Percentage numerator/denominator *100	90% by December 2011	Staff satisfaction questionnaire

○ Sample measures – Alder Hey PFCC project

Measures demonstrated that patients experienced...

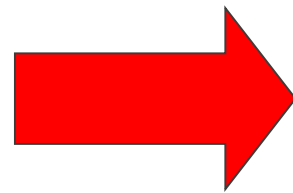
Long waits

Inconsistent care

Unnecessary admissions

Delayed diagnosis

Complaints



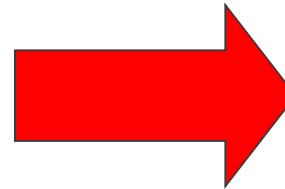
**Poor
Experience**



○ Sample measures – Alder Hey PFCC project

Measures demonstrated that staff experienced...

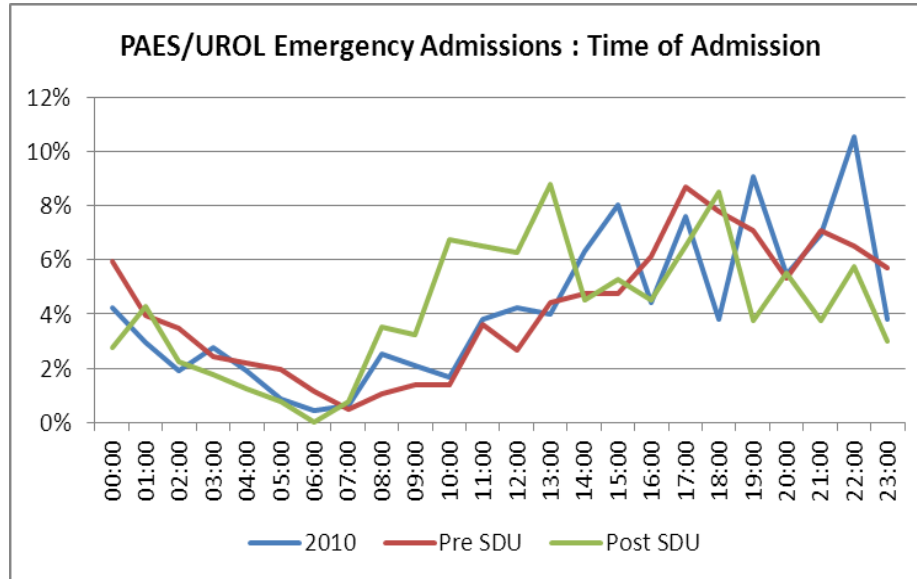
- Impaired flow in ED
- No clarity of care pathway
- Unnecessary admissions
- Angry parents
- Distressed children
- Formal complaints and incidents



Poor staff experience



○ Alder Hey PFCC project outcomes



Solution ?

Created a surgical decision unit

Rate of admission (no procedure)
2.38 ➡ 1.33

Rate of admission (with procedure)
6.99 ➡ 4.66

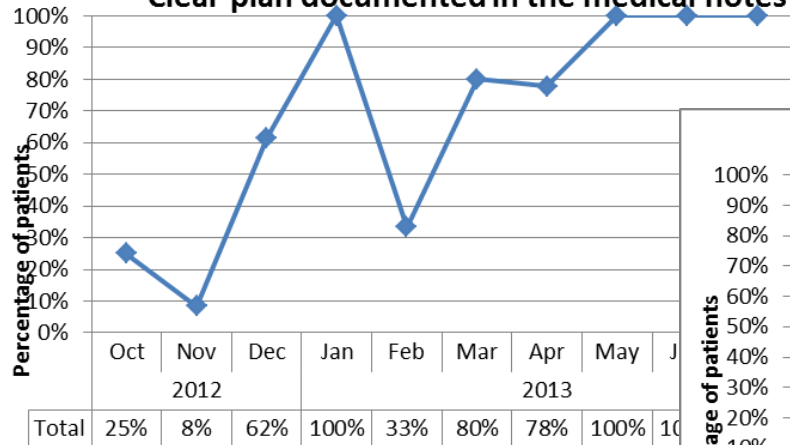
Average length of stay
5.04 ➡ 2.87 days

100% families say pain well managed
95% families say wait less than expected
87% families feel well informed

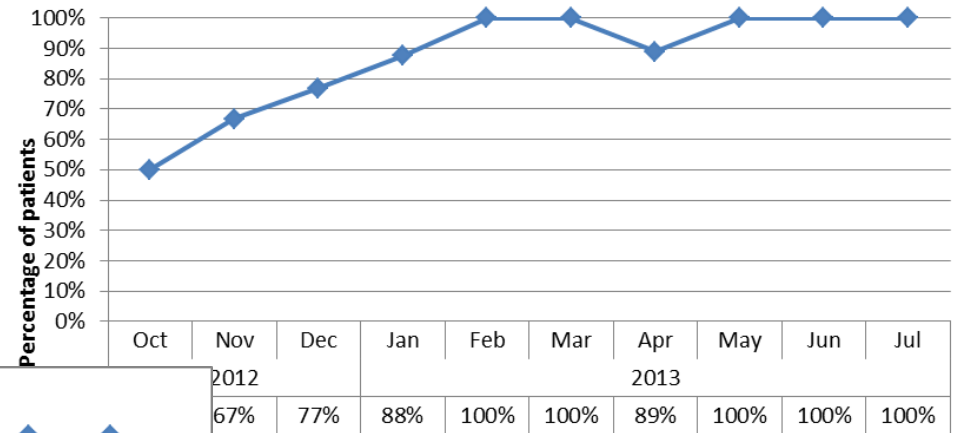
- arrive on ward earlier in the day
- get operations sooner
- spend less time in hospital overall
- child, family and staff feedback positive

○ R U H Bath – end of life care PFCC project

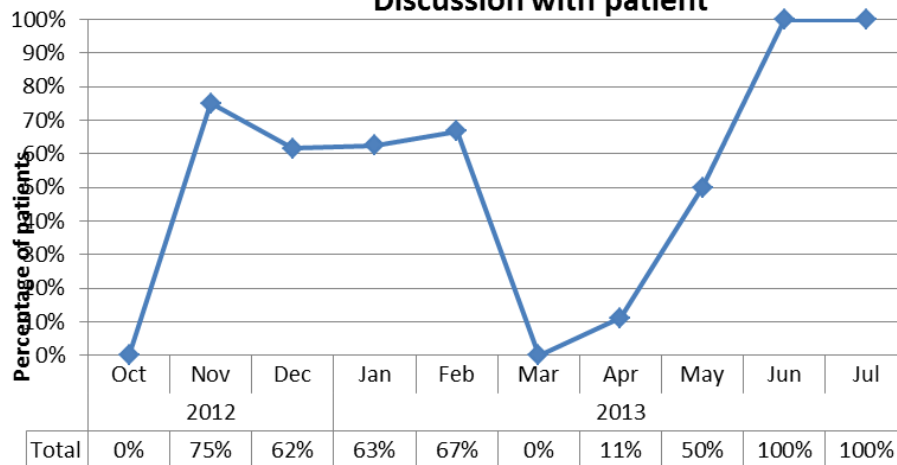
Clear plan documented in the medical notes



Discussion with family



Discussion with patient

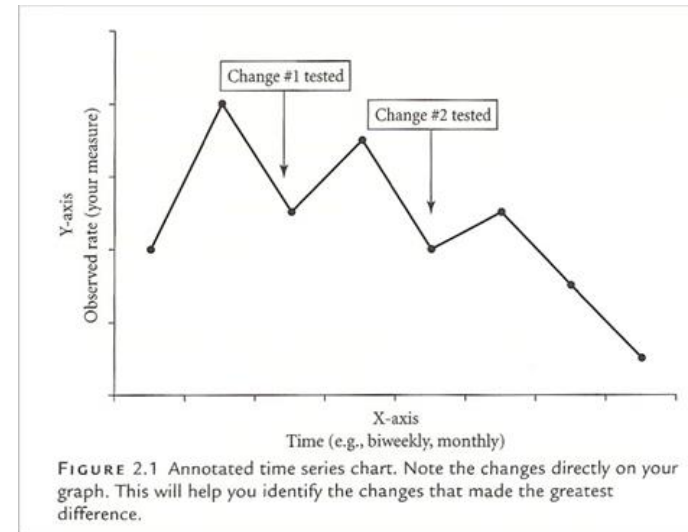


○ Measurement challenges

- Burden of data collection and analysis
 - Timing and frequency of data collection
 - Representativeness of participants
 - Generalisability
 - Sensitivity to change
 - Timeliness
 - Use across complex clinical pathways
 - Presentation to multiple audiences
 - Using the data to stimulate improvements
-

○ Measurement for improvement - summary

- Balanced set of measures reported frequently to determine if the system has improved
- Reflect the overall aim
- Specific
- Measures guide improvement and test changes (they won't be perfect)
- Integrated into the daily routine
- Plotted over time / represent visually
- They belong to you, are defined by you and are there to help you



Thank you for listening – any
questions?

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The Future of the Network

Developing the Network

Needs of HOPE Network Members	What the Network could do/has done
Influencing skills	<ul style="list-style-type: none">• Mentoring/buddying• Promote sharing of knowledge & expertise• Deliver skills-based sessions (e.g. influencing and measurement).• Provide opportunities to talk to experts both within & outside the NHS• Develop new thinking around patient experience roles.
Developing knowledge and expertise in specific areas (e.g. implementing change/improvement, social media)	
Develop leadership capability to have greater impact and voice in organisation	
Provide time for reflection and thinking, give freedom to innovate.	

Developing the Network

What should we focus on in 2016?

How can we build the Network virtually while strengthening the Network in person?