SPSP Perinatal and Paediatric Programmes National Learning Session

A Collaborative Approach to Patient Safety

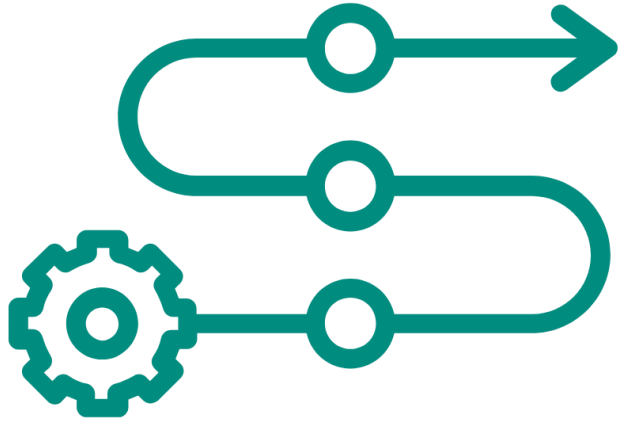
14 March 2024

@mcqicspsp

#SPSPPaediatric
#SPSPPerinatal

Aims of the learning session

- Demonstrate how the Essentials of Safe Care are embedded in the SPSP Perinatal and SPSP Paediatric programmes
- Understand how human factors can optimise health and care system outcomes including staff and patient safety
- Explore quality improvement methods that support the safe delivery of care
- Provide a forum for teams working across maternity, neonatal, and paediatric services to collaborate



Morning agenda

Time	Topic	Lead
10:00-10:15 (Hybrid)	Welcome	Jo Matthews, Associate Director of Safety, Healthcare Improvement Scotland
10:15-10:30 (Hybrid)	Programme updates	Dr Sonia Joseph, National Clinical Paediatric Lead, Healthcare Improvement Scotland Dr Lynsey Still, National Clinical Neonatal Lead, Healthcare Improvement Scotland
10:30-11:15 (Hybrid)	Three of us in this relationship: Human Factors, Quality Improvement and patient safety	Dr Helen Vosper, Senior Lecturer, University of Aberdeen
11:15-11:30	Morning break	
11:30-12:40	Bananas and planes	Damian Boyd and Tim Shearman, Improvement Advisors, Healthcare Improvement Scotland
12:40-12:45	Morning reflections and introduction to breakout rooms	Jo Matthews
12:45-13:40	Lunch, networking & transition to afternoon breakouts	

Afternoon agenda

Time	Topic	Lead
13:40-15:10	**Perinatal** – Exploring the importance of effective communication at key points of the perinatal journey	Dr Nirmala Mary, National Clinical Obstetric Lead, Healthcare Improvement Scotland Angela Cunningham, National Clinical Midwifery Lead, Healthcare Improvement Scotland Dr Lynsey Still, National Clinical Neonatal Lead, Healthcare Improvement Scotland Damian Boyd, Improvement Advisor, Healthcare Improvement Scotland
	Paediatric – Including children and families in the co-design of improvement work	Dr Sonia Joseph, National Clinical Paediatric Lead, Healthcare Improvement Scotland Tim Shearman, Improvement Advisor, Healthcare Improvement Scotland
	Essentials of Safe Care – Improving learning in adverse events and involving families (Hybrid)	Jo Thomson, Senior Improvement Advisor, Healthcare Improvement Scotland Dr Belinda Hacking, Director of Psychology, NHS Lothian Emma Campbell, Risk Management Senior Midwife, NHS Lothian Moira Manson, Head of Reviews, Healthcare Improvement Scotland
15:10-15:20	Transition to main room	
15:20-15:50	**Team planning**	Jo Thomson
15:50-16:00	**Closing remarks and next steps**	Jo Matthews

Driver Diagram

Aim

To enable the delivery of Safe Care for every person within every system every time

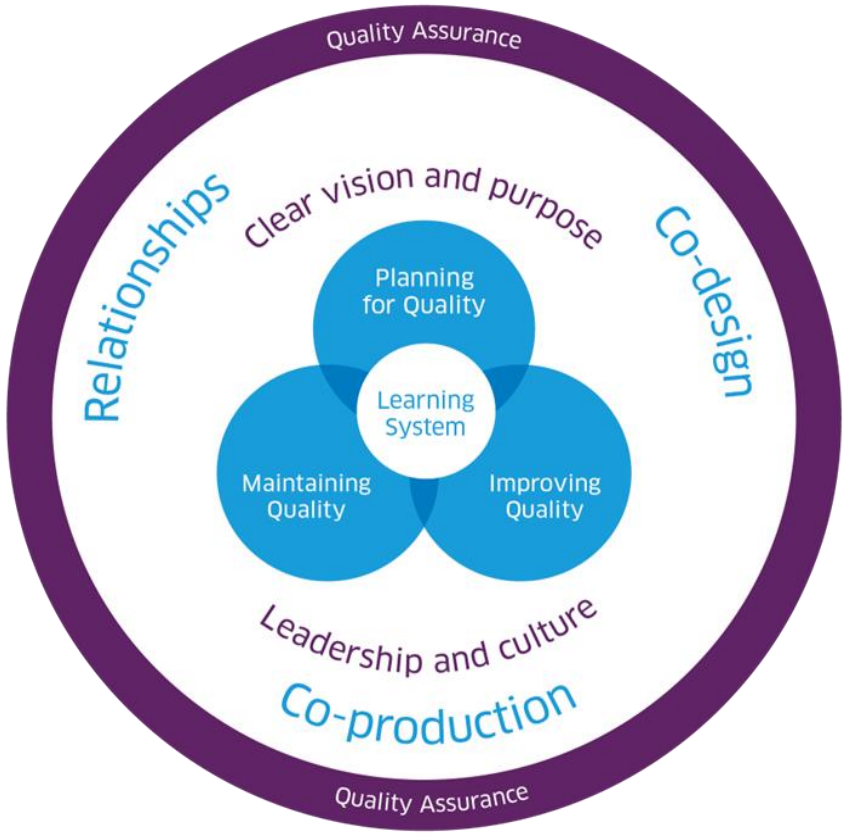
Primary Drivers

- Person centred systems and behaviours are embedded and support safety for everyone
- Safe communications within and between teams
- Leadership to promote a culture of safety at all levels
- Safe consistent clinical and care processes across health and social care settings

Secondary Drivers

- Structures & processes that enable safe, person centred care
- Inclusion and involvement
- Workforce capacity and capability
- Skills : appropriate language, format and content
- Practice : use of standardised tools for communication
- Critical Situations : management of communication in different situations
- Psychological safety
- Staff wellbeing
- System for learning
- Reliable implementation of Standard Infection Prevention and Control Precautions (SICPS)
- Safe Staffing

Perinatal Quality Management System



Quality planning – Evidence, Standards and Guidelines, Strategic Planning

Quality improvement – SPSP Essentials of Safe Care, SPSP Perinatal Programme

Quality control – Excellence in Care , Healthcare Staffing Programme

Quality assurance – Safe Delivery of Care , Responding to Concerns , Adverse Events

Learning System – Sharing Intelligence , SPSP Learning System

SPSP Paediatric and Perinatal Programme updates

Dr Sonia Joseph

National Clinical Paediatric Lead Healthcare Improvement Scotland

Dr Lynsey Still

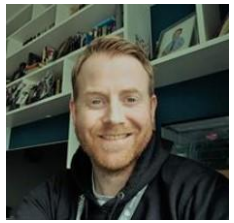
National Clinical Neonatal Lead Healthcare Improvement Scotland

Team in the room today

Joanne Matthews
Associate Director of Improvement and Safety

Claire Mavin
Portfolio Lead

Jo Thomson
Senior Improvement Advisor



Damian Boyd
Improvement Advisor

Tim Shearman
Improvement Advisor

Lynsey Still
National Clinical Neonatal Lead

Nirmala Mary
National Clinical Obstetric Lead

Angela Cunningham
National Clinical Midwifery Lead

Sonia Joseph
National Clinical Paediatric Lead

Amy Hanson
Project Officer

Sara McIvor
Project Officer

Hayley Heath
Admin Officer

Dagmara Lukowiec
Senior Project Officer

SPSP Paediatric Programme update

Dr Sonia Joseph

National Clinical Paediatric Lead
Healthcare Improvement Scotland

2023 Deteriorating Child & Young Person Driver Diagram

What are we trying to achieve…

To reduce harm from deterioration by improving the recognition, response and review of the deteriorating child and young person**

By [locally agreed %] by 31st March 2025

Essentials of Safe Care
****Measurements may include existing Excellence in Care data***

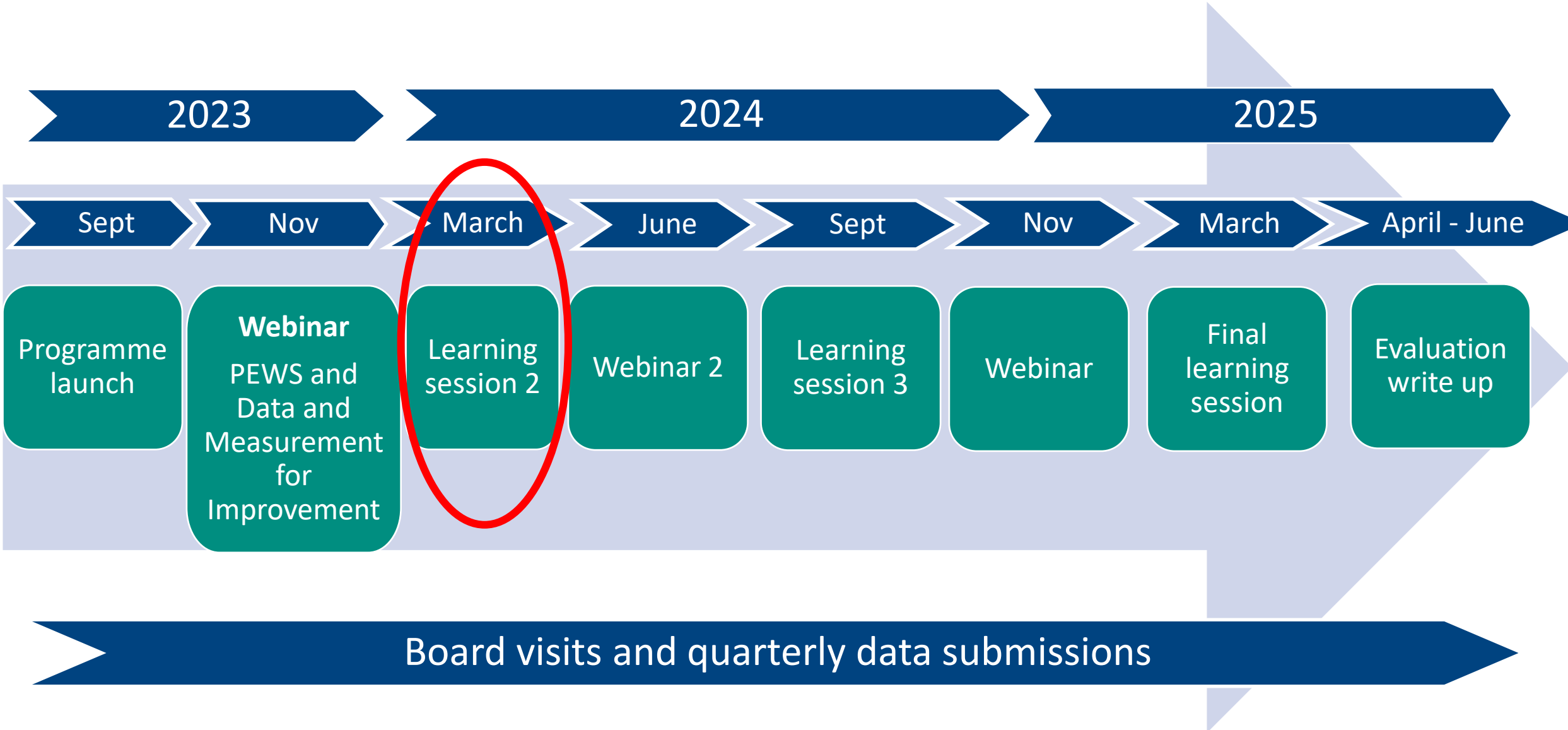
We need to ensure…

- Person-centred care*
- Recognition of acute deterioration
- Standardised, structured response and review
- Safe communication across care pathways*
- Leadership to support a culture of safety at all levels*

Which requires…

- Patients, families and carers are listened to and included
- Person-centred care planning
- Anticipatory care planning & CYPADM
- Discussions with families are well managed
- Observations using PEWS (Scotland)
- Action on staff concern
- Action on patient, family and carer concern
- Timely review by appropriate decision maker
- Assessment for causes of acute deterioration
- Escalation
- Regular review and assessment
- Interdisciplinary teamwork and collaboration*
- Use of standardised communication tools*
- Effective communication in different situations*
- Psychological safety for staff*
- Staff wellbeing*
- Safe Staffing*
- System for learning*

SPSP Paediatric Programme timeline

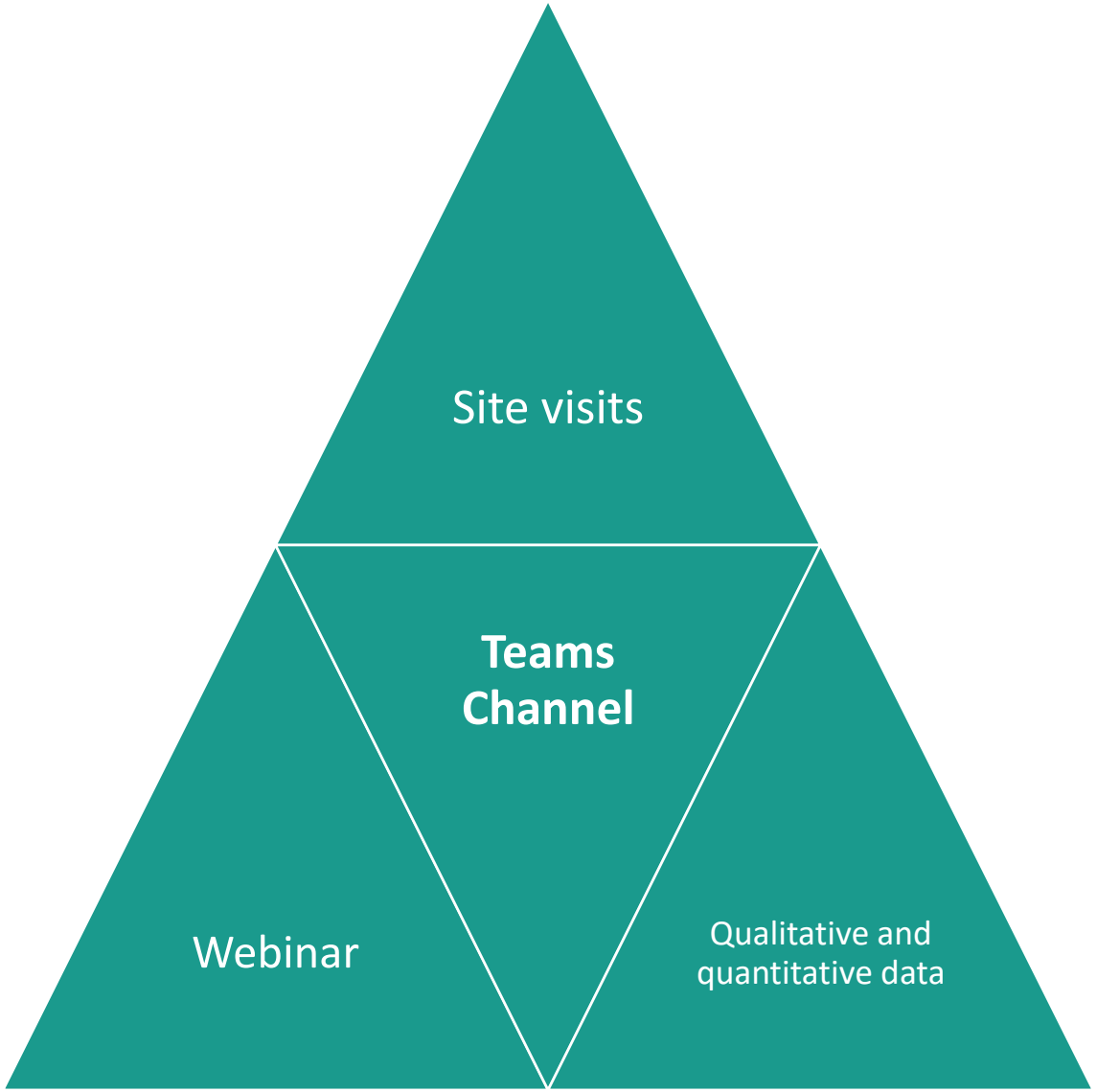


Improvement journey

Where is your Paediatric Collaborative team in the improvement journey?

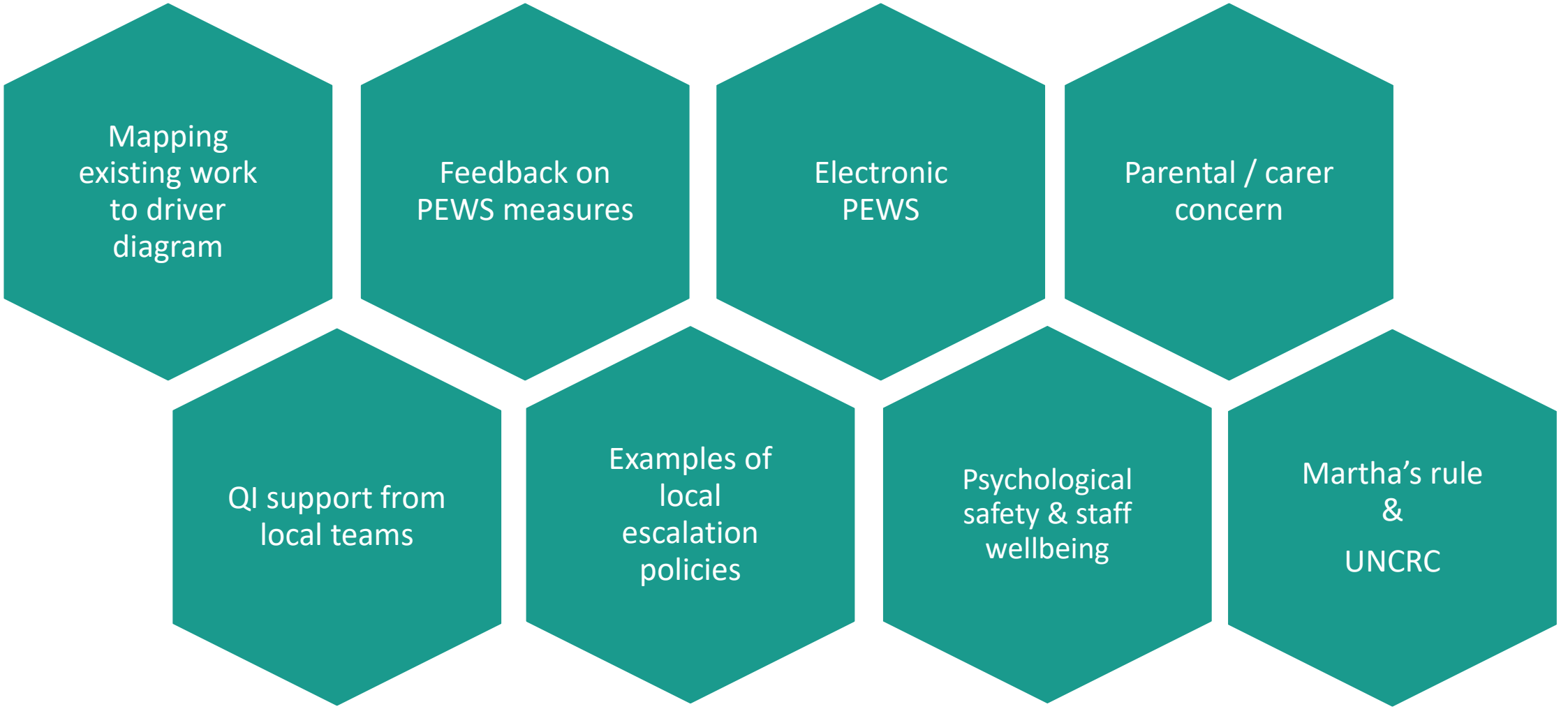
- Creating the conditions
- Understanding your system
- Developing your aims
- Testing changes
- Implementation
- Spreading

Learning system activities



Link to join SPSP Paediatric Collaborative Teams Channel

Themes


Mapping existing work to driver diagram
Feedback on PEWS measures
Electronic PEWS
Parental / carer concern
QI support from local teams
Examples of local escalation policies
Psychological safety & staff wellbeing
Martha's rule & UNCRC

SPSP Perinatal Programme update

Dr Lynsey Still

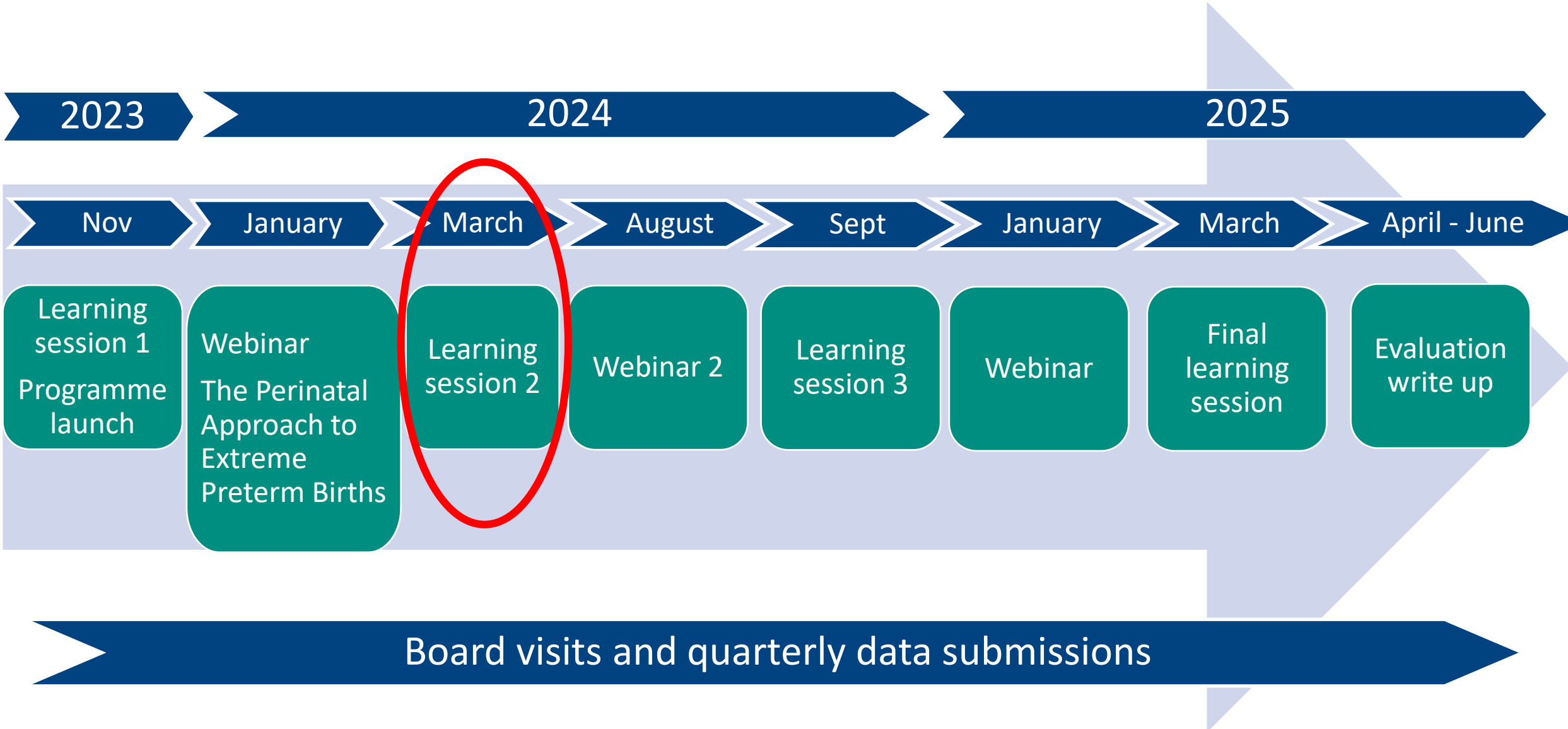
National Clinical Neonatal Lead
Healthcare Improvement Scotland

SPSP Perinatal Programme Aims

The SPSP Perinatal Programme is focussing on the following aims:

- Reduction in stillbirth
- Understanding the variation in caesarean birth rate
- Improving the recognition, response and review of the deteriorating woman / birthing person
- Reduction in neonatal mortality and morbidity

SPSP Perinatal Programme timeline



Themes

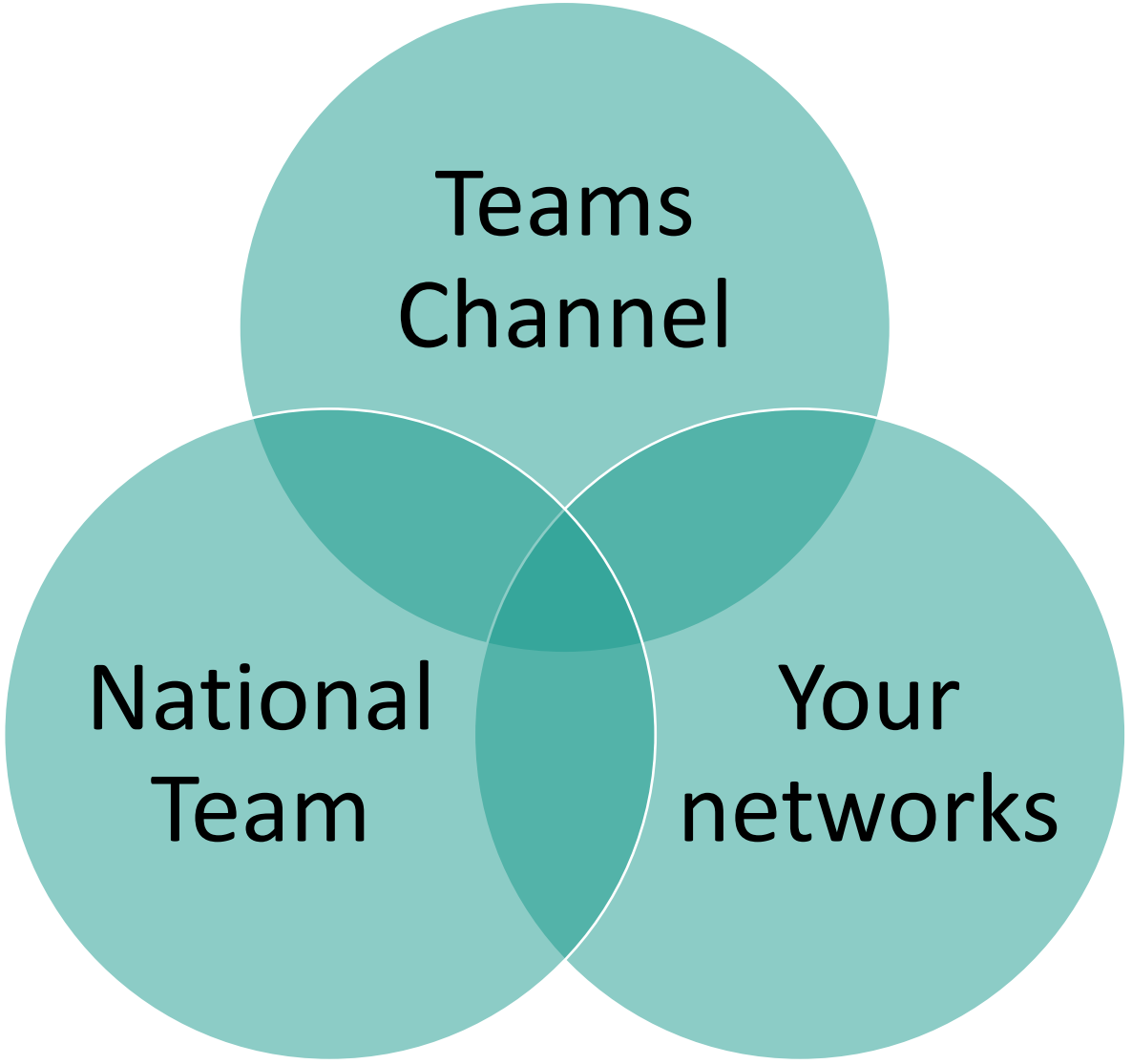

Identifying Board priorities
Inequalities
Building on existing work
Preterm labour and birth optimisation
Psychological safety
Forming perinatal teams
Staff wellbeing
Reducing unnecessary separation

Improvement journey

Where is your Perinatal Collaborative team in their improvement journey?

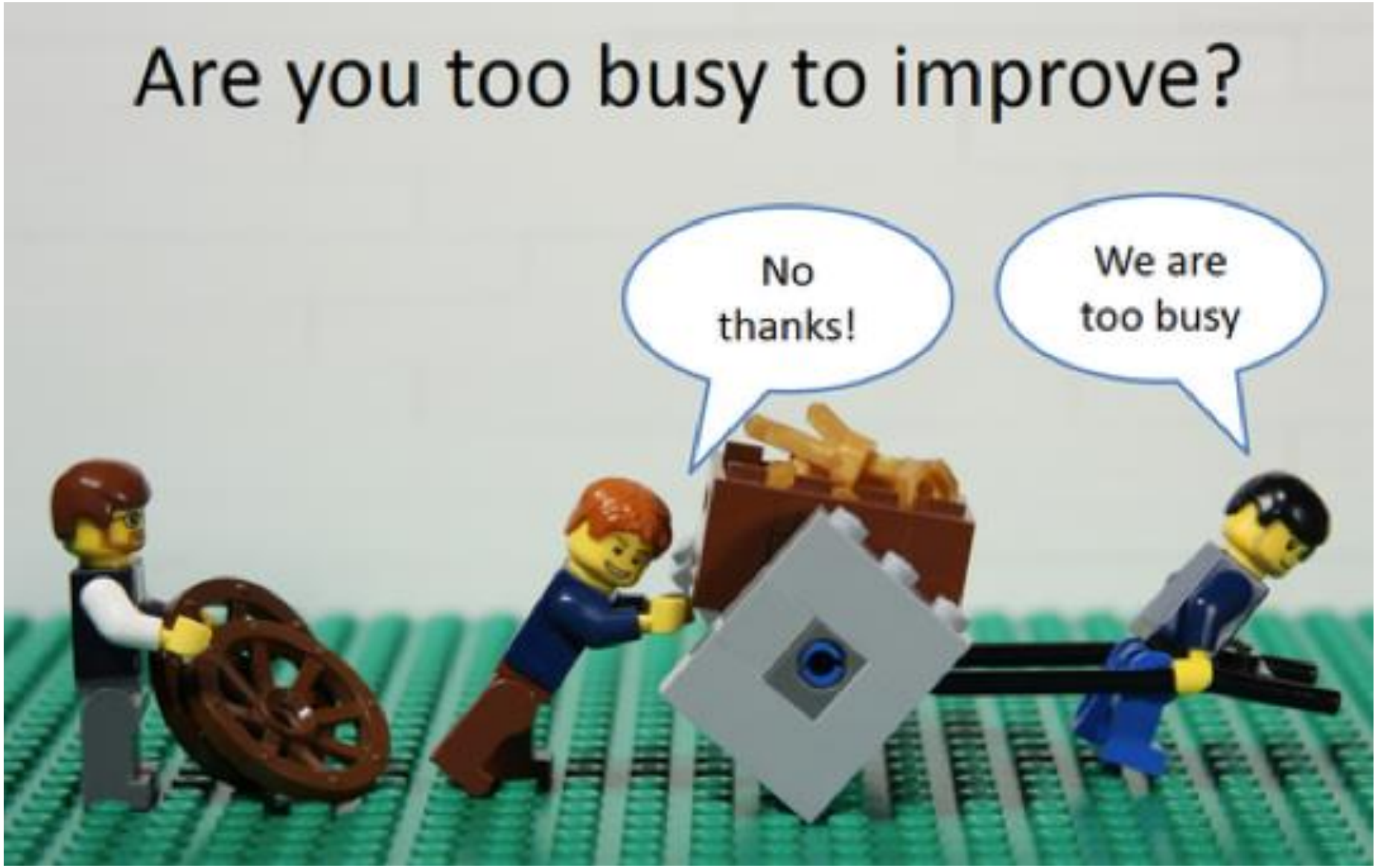
- Creating the conditions
- Understanding your system
- Developing your aims
- Testing changes
- Implementation
- Spreading

We’re in this together



Link to join SPSP Perinatal Collaborative Teams Channel

Learn and share together



1495 UNIVERSITY OF ABERDEEN

ABERDEEN 2040

SPSP National learning session

Three of us in this relationship: Human Factors, Quality Improvement and patient safety

Helen Vosper

helen.vosper@abdn.ac.uk

My perspective…

CIEHF ACCREDITED

Chartered Ergonomist & Human Factors Specialist

NHS Education for Scotland

Health Services Safety Investigations Body

HSSIB?

- Health Services Safety Investigations Body
- Independent, arms-length
- Investigating safety concerns across NHSE
- ‘Improving care across NHS’
- Formerly HSIB; included maternity
- MNSI now under remit of CQC
- HSIB work has much to tell us

8 themes…

- Early recognition of risk
- Safety of intrapartum care
- Escalation
- Handovers
- Larger babies
- Neonatal collapse
- Group B Strep
- Cultural considerations

Familiar territory!

SPSP Perinatal Change Package

To select but a few!

- Woman/ birthing person
- Screening to identify those at greatest risk of preterm birth
- Risk assessment, appropriate monitoring and escalation during labour
- Recognition, response and escalation of deterioration
- A *lot* about culture: Psychological safety; staff wellbeing; system for learning; safe staffing
- Early recognition of risk and Escalation
- CTG?

Apply equally here

Healthcare Improvement Scotland | Scottish Patient Safety Programme

SPSP Paediatric Programme Deteriorating Child & Young Person Change Package

Safety lexicon ‘narrow’ and ‘negative’

EDITORIAL

Steven Shorrock
Editor in Chief of *HindSight*

WHO ARE WE TO JUDGE?

FROM WORK-AS-DONE TO WORK-AS-JUDGED

Early recognition of risk

- Complications in labour that could be linked back to antenatal care
- Most mothers considered low risk at start
- Many experienced events/changes that increased risk; not factored
- Multiple episodes of reduced fetal movements; Changes in health that required medical or mental health support; Lack of follow up to ensure referrals to specialist services had taken place
- Fundal height/US scan results not plotted (trends missed)
- Not always recorded and considered in triage – remained ‘low risk’
- ‘Assurance seeking’ behaviours from maternity staff

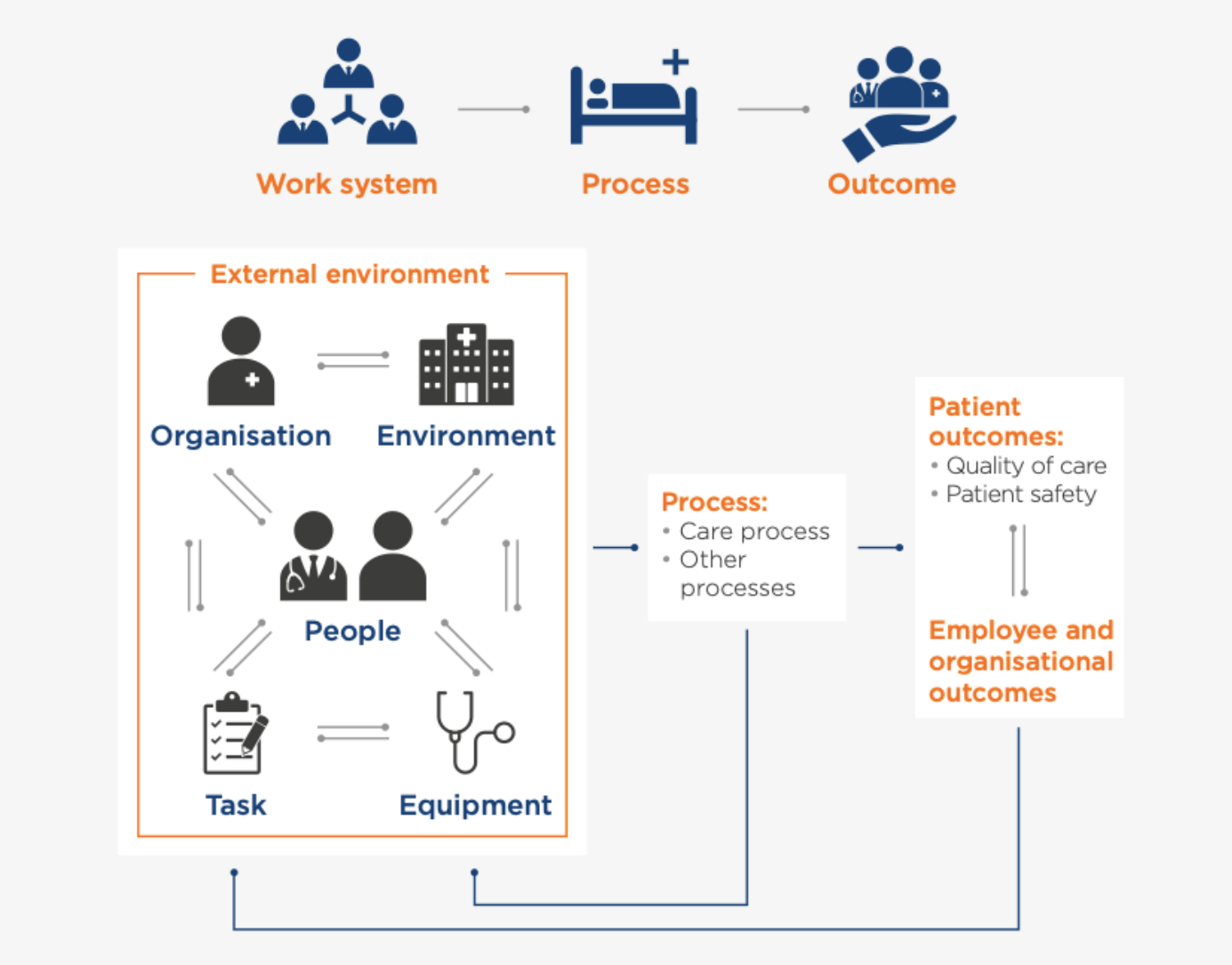
Escalation

- ‘Call for support from more experienced colleague’
- Regular occurrence
- In some units, rigid hierarchy prevents direct approach to appropriate clinician – delay
- Escalation often didn’t provide the necessary input to resolve the situation – staff unclear whether to ‘re-escalate’
- Experience powerful driver of future response: “I know when I can escalate and when I can’t”
- Many of these escalations related to CTG tracings

Cardiotocography (CTG)

- Can’t even scratch the surface here!
- Official line in maternity safety: strong emphasis on training staff in use and interpretation
- HSIB found no evidence of formal training
- Assumption: all machines are the same; staff could not demonstrate comprehensive understanding
- Design, usability, transferability, procurement decision making
- ‘Fresh eyes’ checks: staffing, **national guidance**
- “Could you do fresh eyes? All is looking normal”

How did HSIB find all this out?



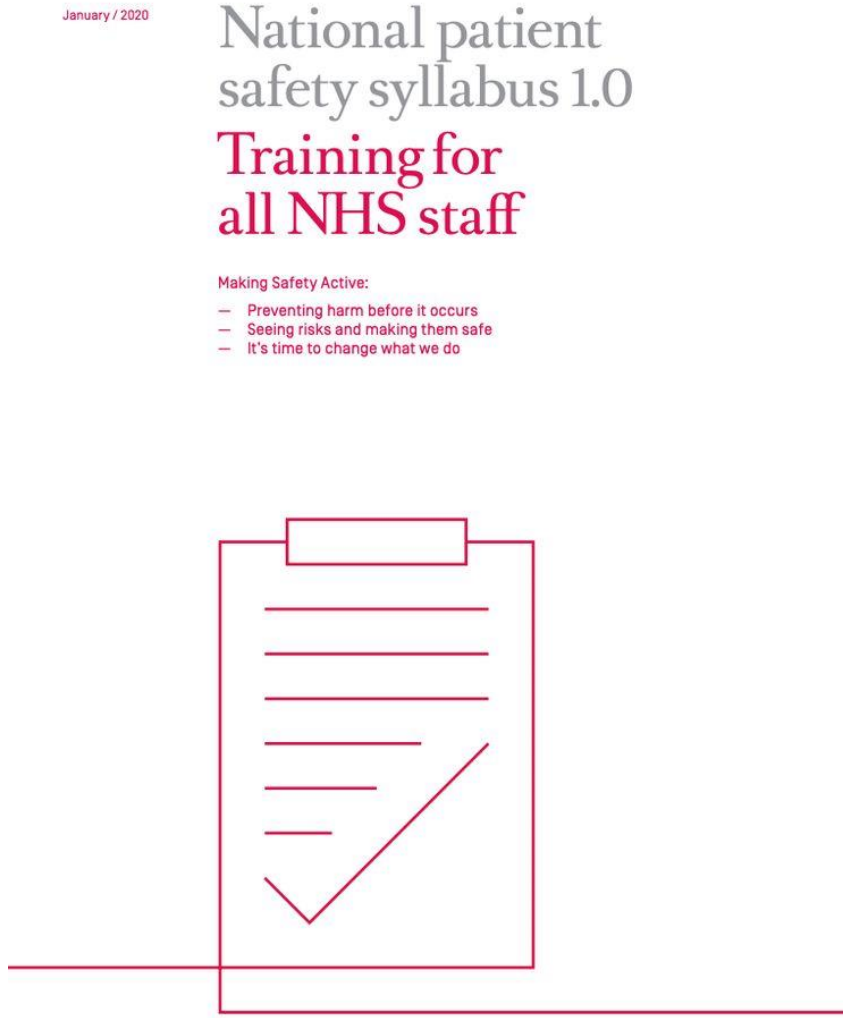
They're not the only ones!

Classification: Official

Publication approval reference: PAR1465

NHS England

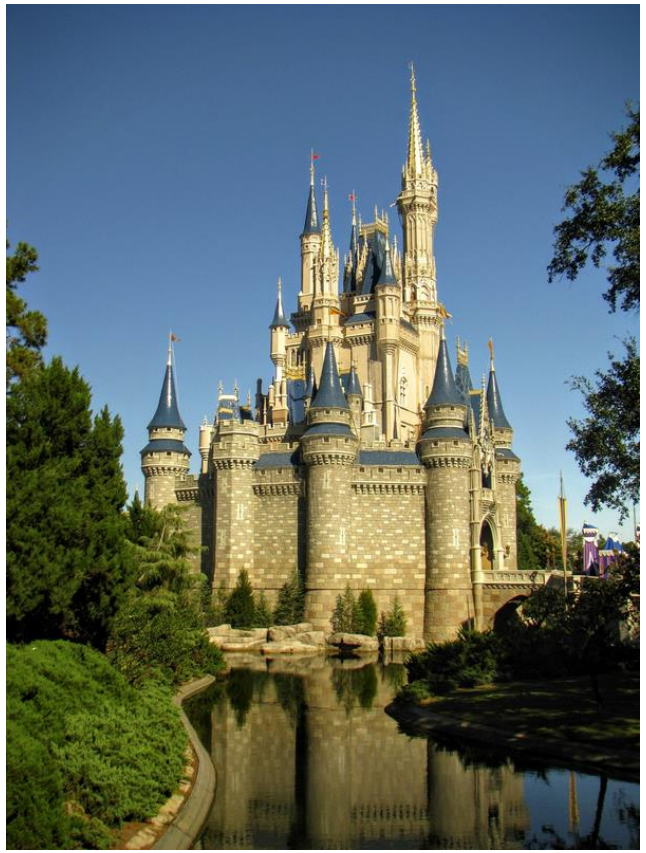
Patient Safety Incident Response Framework

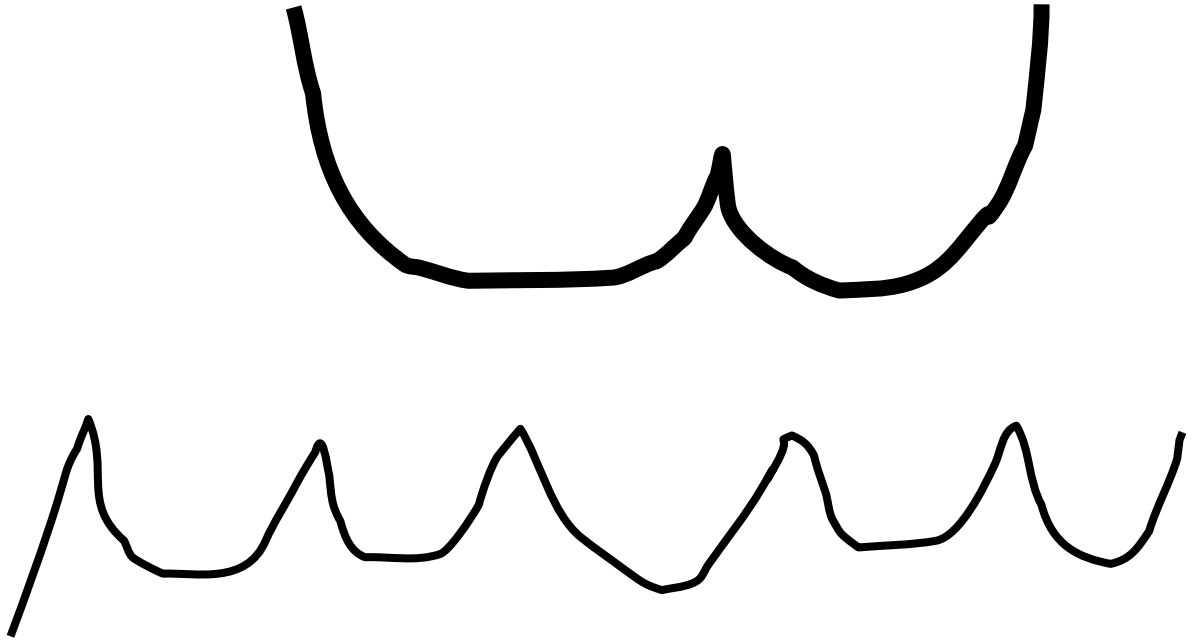


What is Human Factors?

- HFE approaches *always* take holistic systems approach (out-in-out)
- Understand, develop, implement, evaluate
- Always design driven...
- ...and takes into account the capabilities etc of *the* people
- ...which requires working with all system stakeholders
- Twin aims: Optimising system performance (productivity, efficiency, safety etc)
- Enhancing human wellbeing (health and safety, satisfaction etc)
- Iterative

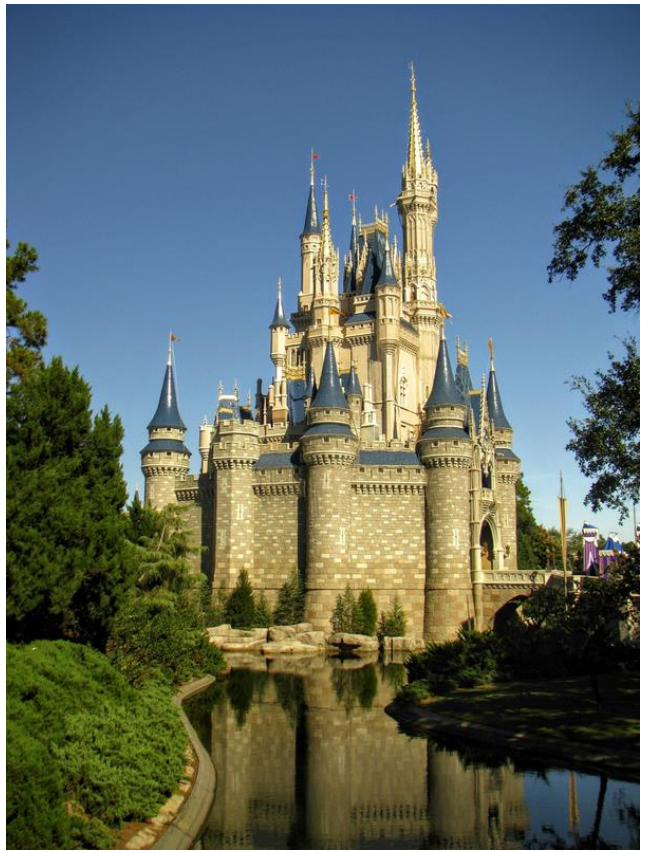
But what does that *mean*?!

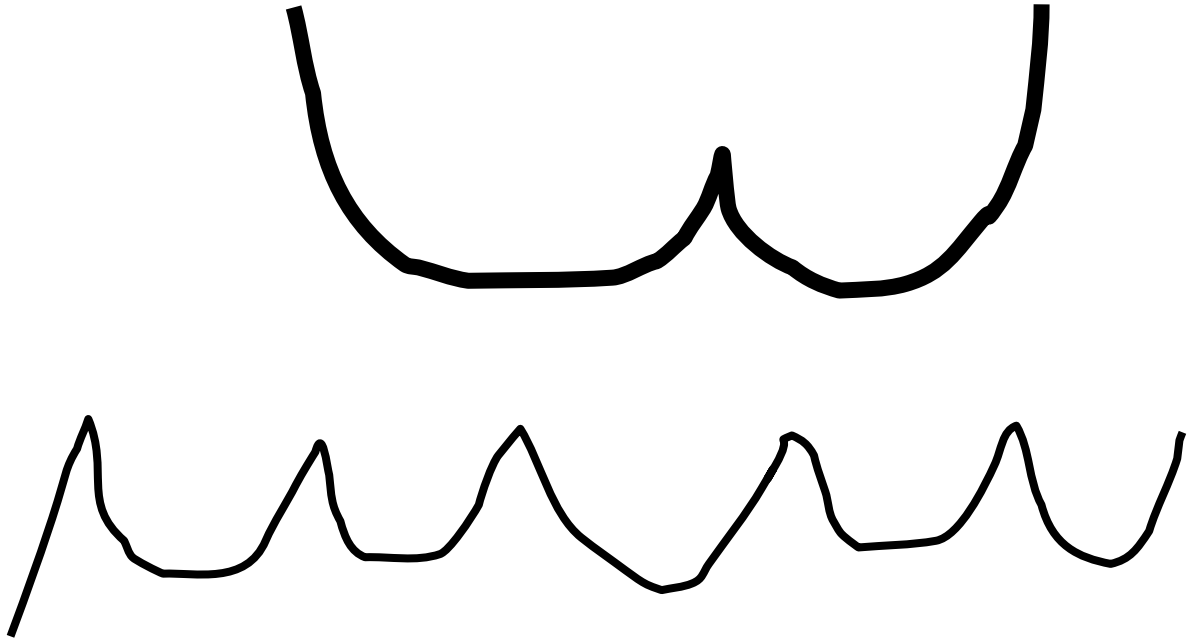




Thanks to Jason Leitch☺

And what has it got to do with QI?!





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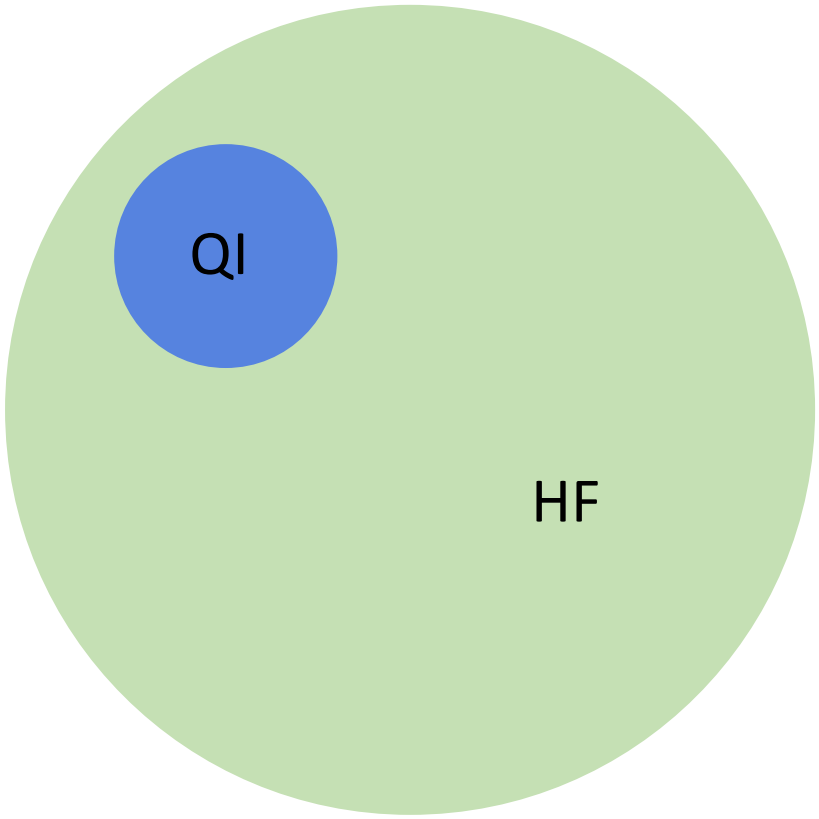
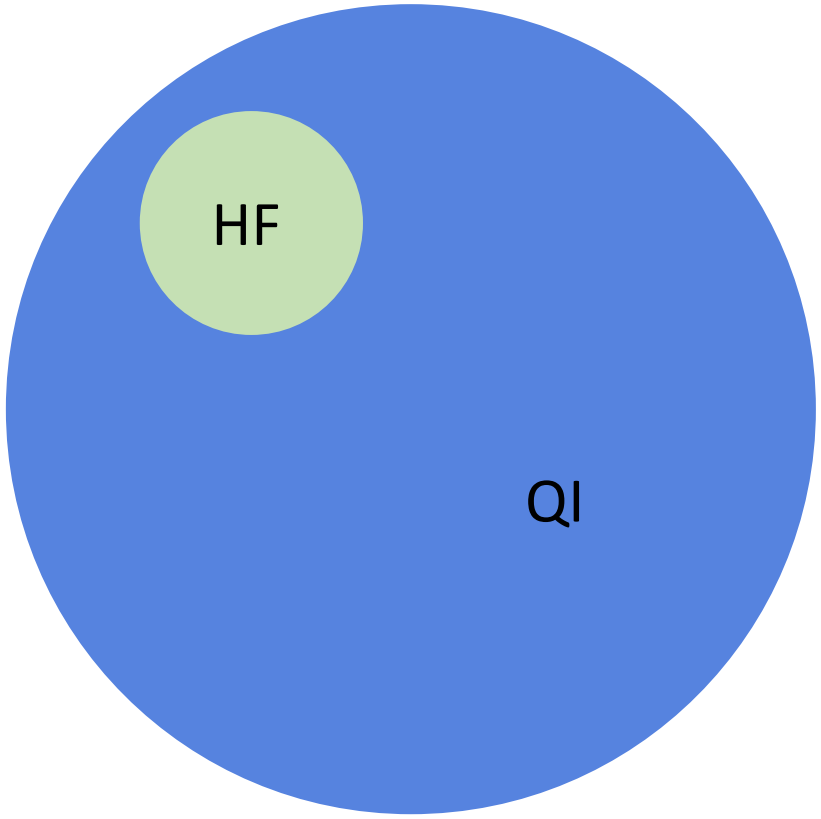
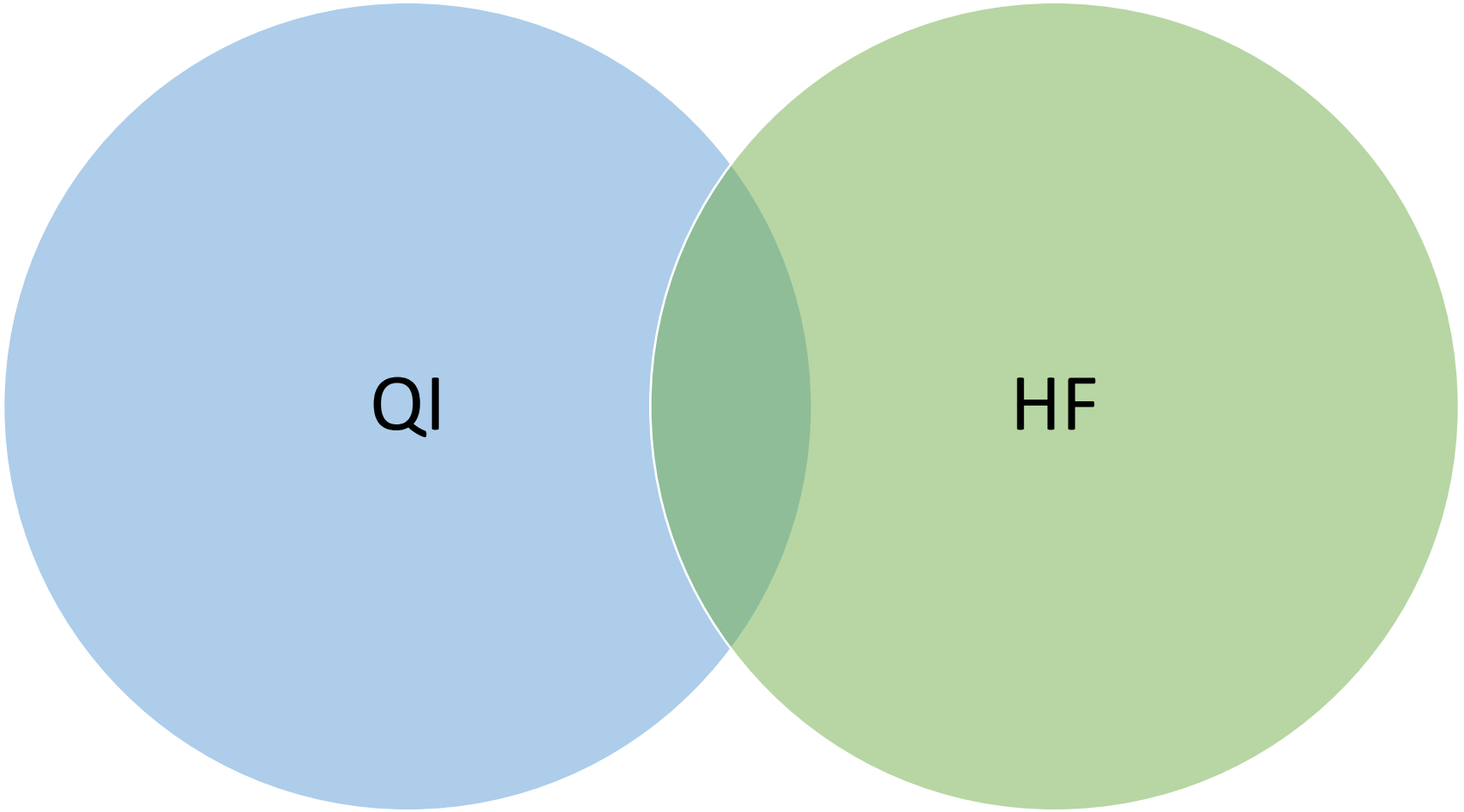
Which is the correct image?

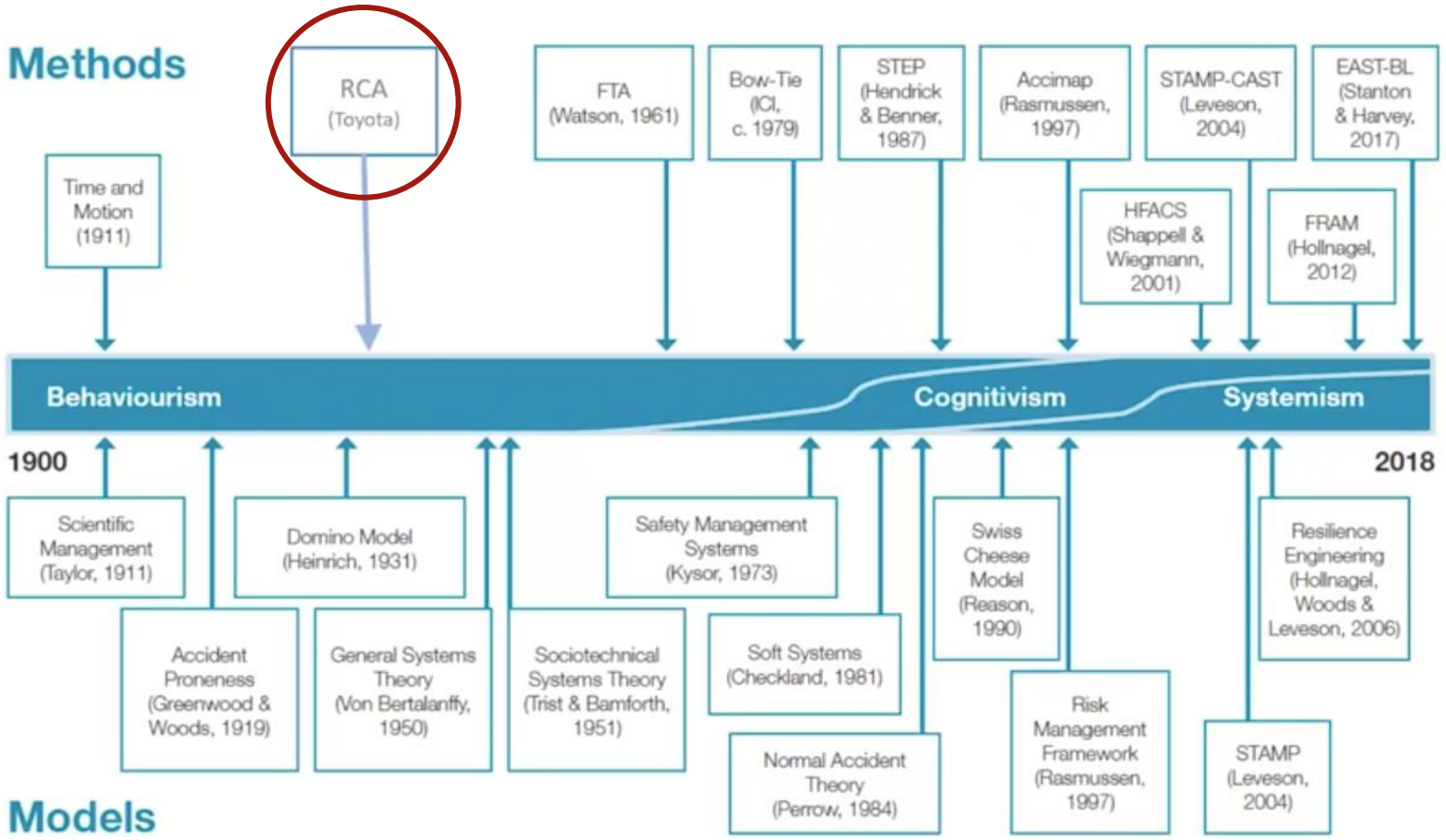




Or possibly?



To reflect on...



History and perspectives

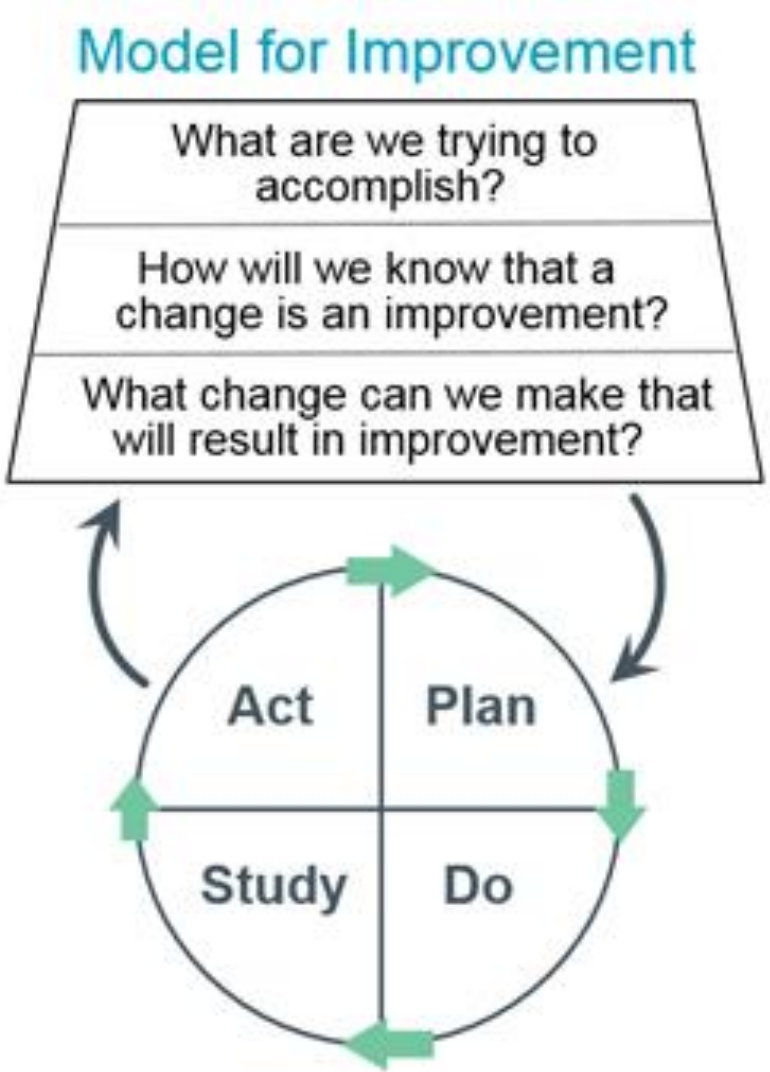
- Hignett et al. BMJ Qual Saf 2015;24:250–254
- Both emerged in early 20th Century
- Emerged from the same roots: that frontline workers have the knowledge!
- QI: Process
- HF(E): Wellbeing (‘the people in the process’)
- Lots of overlap, but QI ‘lacks the methods and tools to develop humanistic design solutions’
- Have synergies

Quality improvement

- IHI: “The combined and unceasing efforts of everyone – healthcare professionals, patients and their families, researchers, payers, planners, administrators, educators – to make changes that will lead to better patient outcomes, better system performance and better professional development.”
- Skills and competencies: clear aims; appropriate measures; test and implement change
- An applied science: importance of local knowledge and the application of appropriate tools and methods
- Lean, six-sigma, TQI and **IHI Improvement model**

IHI improvement model

- QI seen as everyone's responsibility
- Importance of frontline
- Clear aim for improvement
- Establishes measurement plan
- Get stuck in with small-scale test intervention (overcomes change apathy)
- Assess, modify and 'go again!'
- Roll-out elsewhere ('the system')

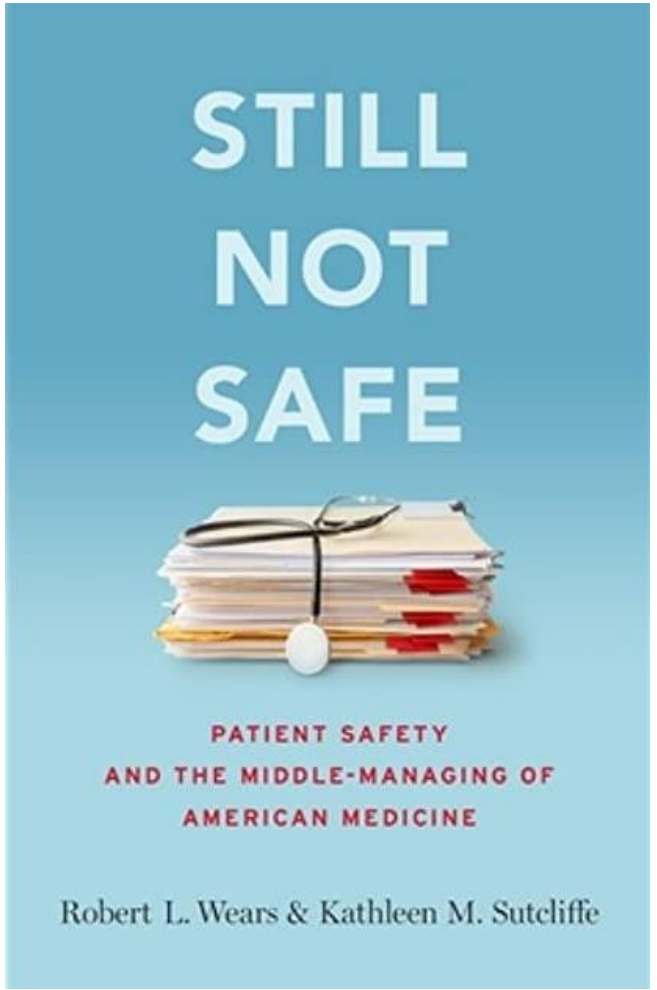


What's the evidence for QI?

- Evidence is mixed
- More robust studies suggest return on investment is poor
- Dixon-Woods et al. 2016. Does Quality Improvement improve quality? Future Hospital Journal 3(3): 191-4
- Why? All comes down to narrow focus of QI vs complexity (eg Sepsis bundles)
- Methodology lacks the tools to deal with this (eg RCA)
- Who are the improvers?

And something else…

- In healthcare: ‘variation is bad’
- Guidelines: ‘one best way’?
- ‘Quality movement’ is based on this
- Standardisation; identification and implementation of ‘best practice’
- Difference between quality and safety?
- Quality: industrial process; ‘deficit model’
- Safety: Human Factors and ‘normal accidents’; ‘people make safety’



Side trip: anaesthesia

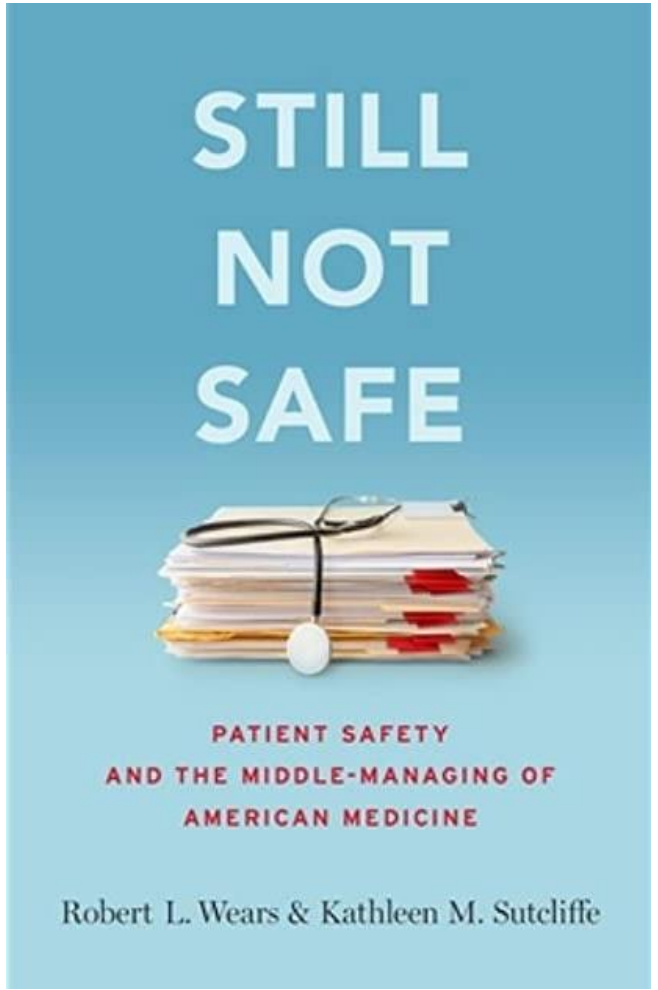
- 1982 US: ABC programme 20/20
- “If you are going to go into anaesthesia, you are going on a long trip and you should not do it, if you can avoid it in any way. General anaesthesia is safe most of the time, but there are dangers from human error, carelessness and a critical shortage of [anaesthetists]. This year, 6000 patients will die or suffer brain damage… the people you have seen are tragic victims of a danger they never knew existed – mistakes in administering anaesthesia”
- High drama! But… anaesthesia is the one area recognised to have improved safety by orders of magnitude

What was different about anaesthesia?

- The American Society of Anaesthesiology was able to respond quickly to the fallout from the programme
- NIH-funded multidisciplinary team already working on the design of a new machine
- Human Factors input – ‘Critical Incident Technique’
- Recognised equipment design did not support safe performance
- Profound and transformational change
- When the learning was shared, it was the ‘what’, not the ‘how’

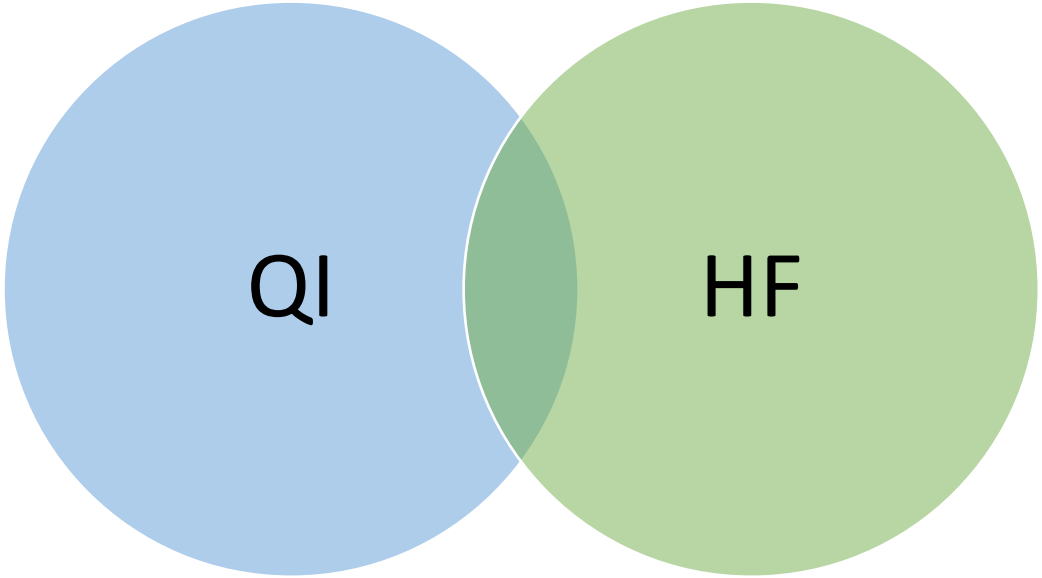
The impact…

- Approach in anaesthesia was intensive
- Case studies chosen for their learning potential
- Direct observation of work, engaging with frontline staff and other stakeholders
- Value not understood
- QI: the opposite – aggregation of large case numbers chosen for a common property
- Aggregation strips out ‘noise’
- HF: ‘the noise is where the learning is’



Are HF and QI not friends, then?

- Interesting ‘closing of circle’
- ‘Patient-centred’ shift of policy recognises importance of generalisations (guidelines)…
- …but also the ‘patient in front of you’
- Combines both
- Similarly, values in combining HF and QI



HF and QI: A real-life example

- HF/QI ‘fusion’ course with East Midlands AHSN
- Maternity
- 3 days: Asked to bring a problem
- First half-day: QI approach
- 2 days of HF training and education
- Re-visit problem
- Solve with combined approach

Overt cord prolapse – an obstetric emergency

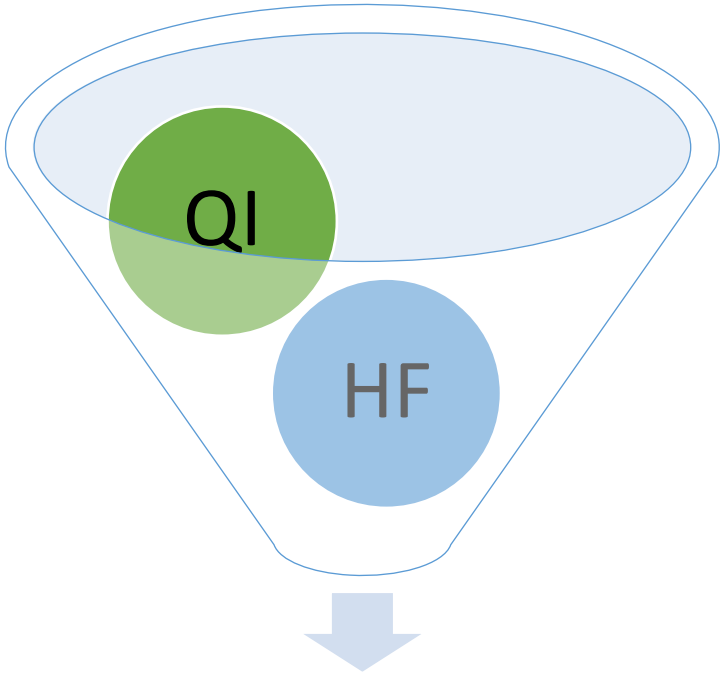
- In labour, presented at maternity department
- No English (nor did partner)
- Busy – sat in waiting room for 30 minutes
- ‘Booked in’ – took a long time due to communication difficulties
- On examination – cord prolapse, poor outcome
- Presented as a language problem, struggled to solve
- Ended with ‘maternal education’

Combine with HF

- Does not start with a problem!
- First task of systems approach is to define the problem!
- ‘Problem’: failure to collect the critical information in a timely manner
- Much simpler: identify critical information and re-design admission form and process
- Change implementation
- So… HF for systems approach and re-design of form
- QI for re-design of process and for change implementation

4-step 'fusion model'

- Explore and define a problem by looking at the humans and the rest of the system (HF > QI)
- Re-design the tasks, interfaces and system (HF)
- Define the elements of the intervention and process measures (QI > HF)
- Implement change using expertise in improvement methodology (QI > HF)



4-step model

Take home points

- Safety is just one outcome – all need to be considered together
- Safety, service delivery, education, enhancement – QI is the mechanism you're likely to be familiar with
- QI is king!
- Need to understand its limitations… and how HF can add value in this regard
- Not a criticism of QI – good 'QI-ers' get this and incorporate systems approaches
- Here's how we can ensure everyone does!

Bananas and planes

Damian Boyd

Improvement Advisor

Healthcare Improvement Scotland

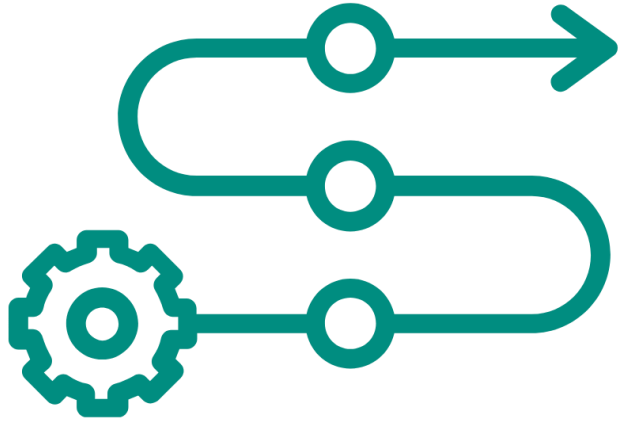
Tim Shearman

Improvement Advisor

Healthcare Improvement Scotland

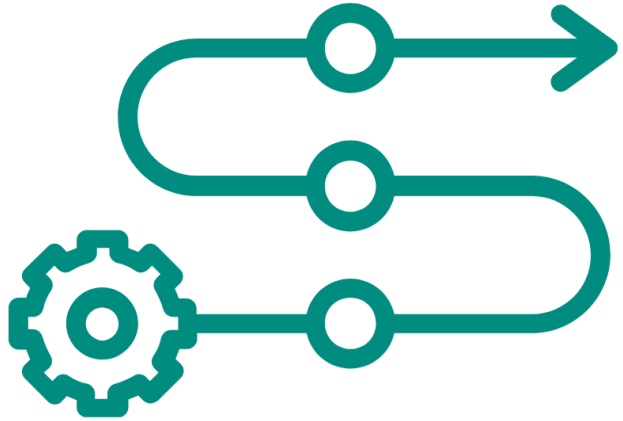
Where we are…

- Overview of the SPSP Perinatal and SPSP Paediatric programmes
- Understand how human factors can optimise health and care system outcomes including staff and patient safety
- Explore quality improvement methods that support the safe delivery of care
- Provide a forum for teams working across maternity, neonatal, and paediatric services to collaborate



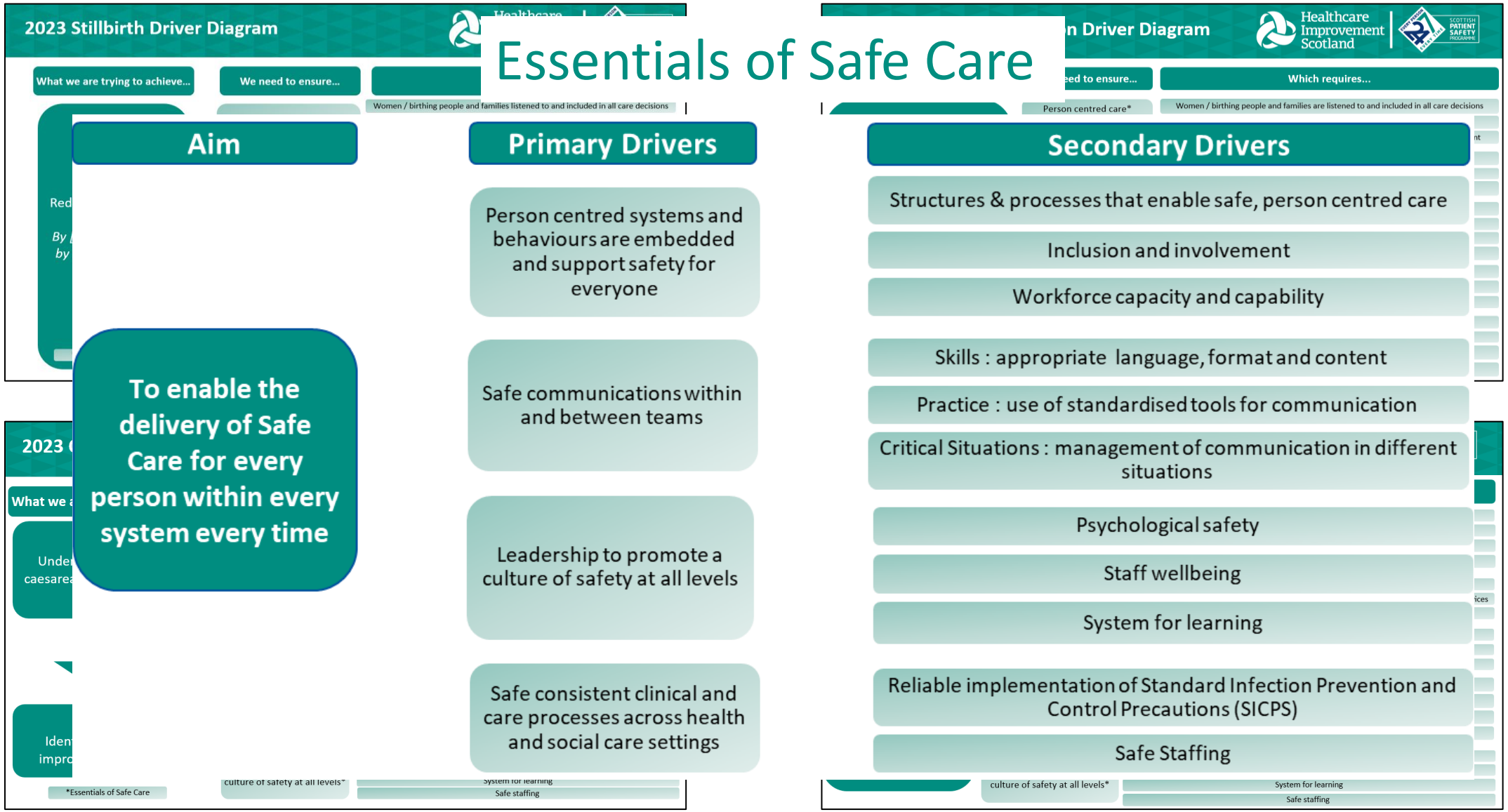
Aims of this QI session

- Provide teams with an introductory overview of the Model for Improvement
- Brief refresh of the importance of operational definitions
- Explore how the application of the PDSA cycles gathers learning and supports sustainable change
- Start interacting!

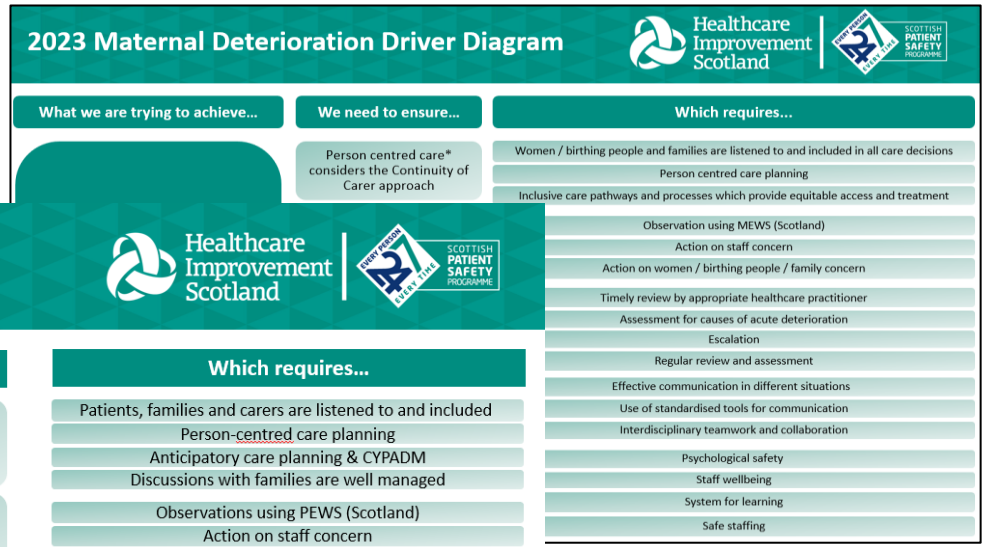


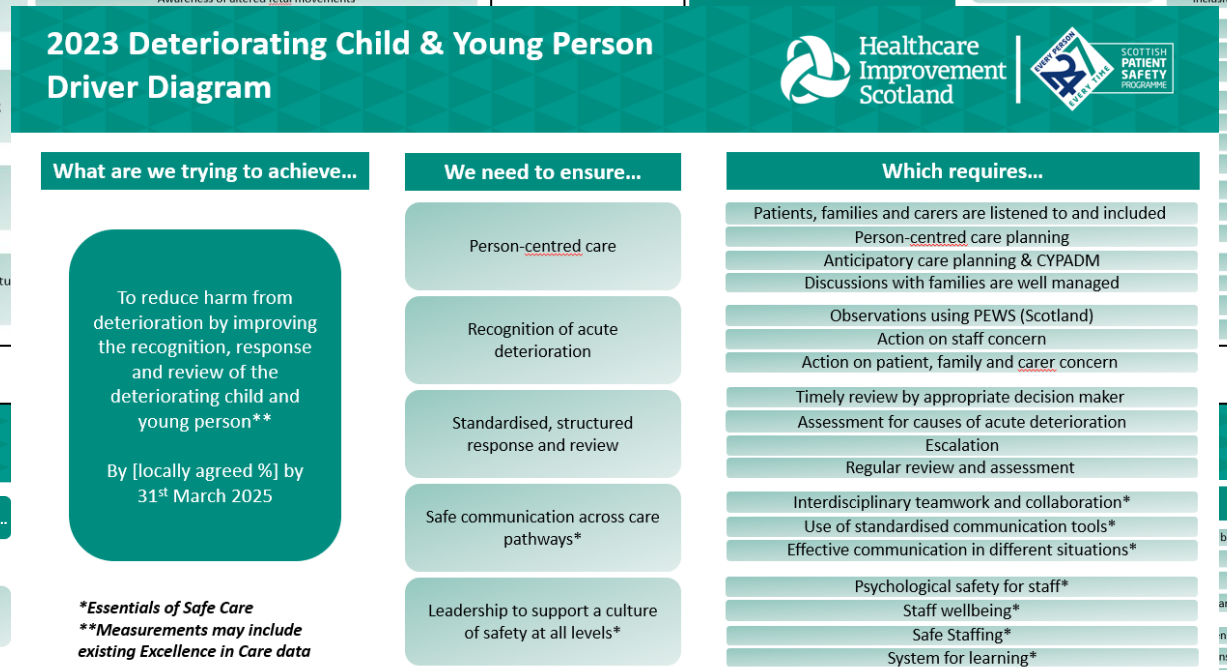
SPSP Perinatal & Paediatric Driver Diagrams

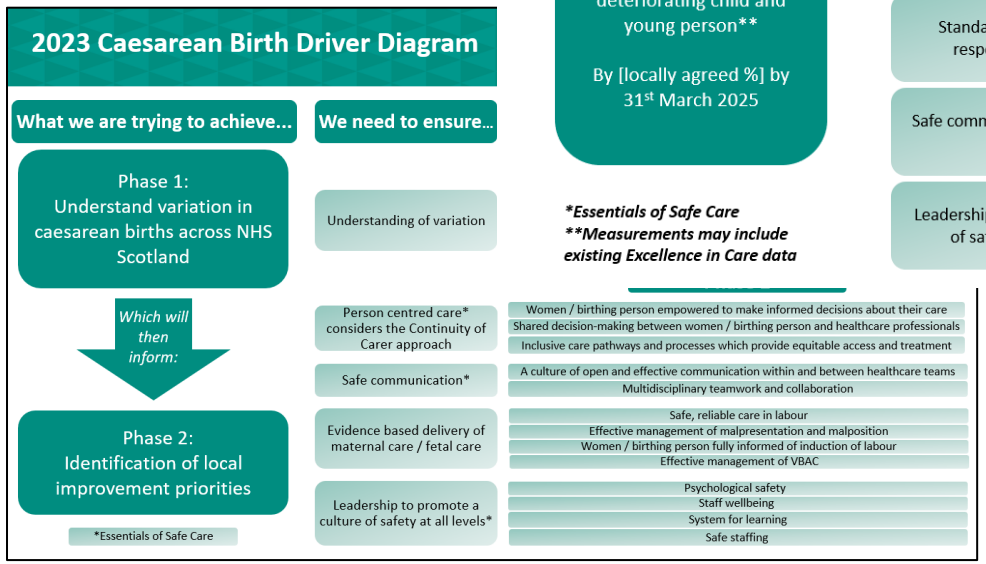
Essentials of Safe Care

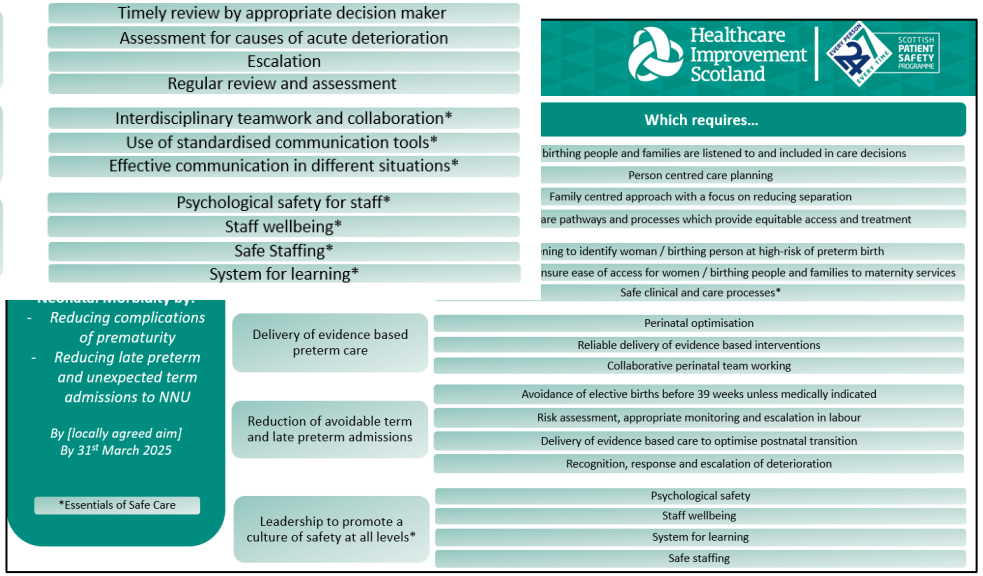


SPSP Perinatal & Paediatric Driver Diagrams





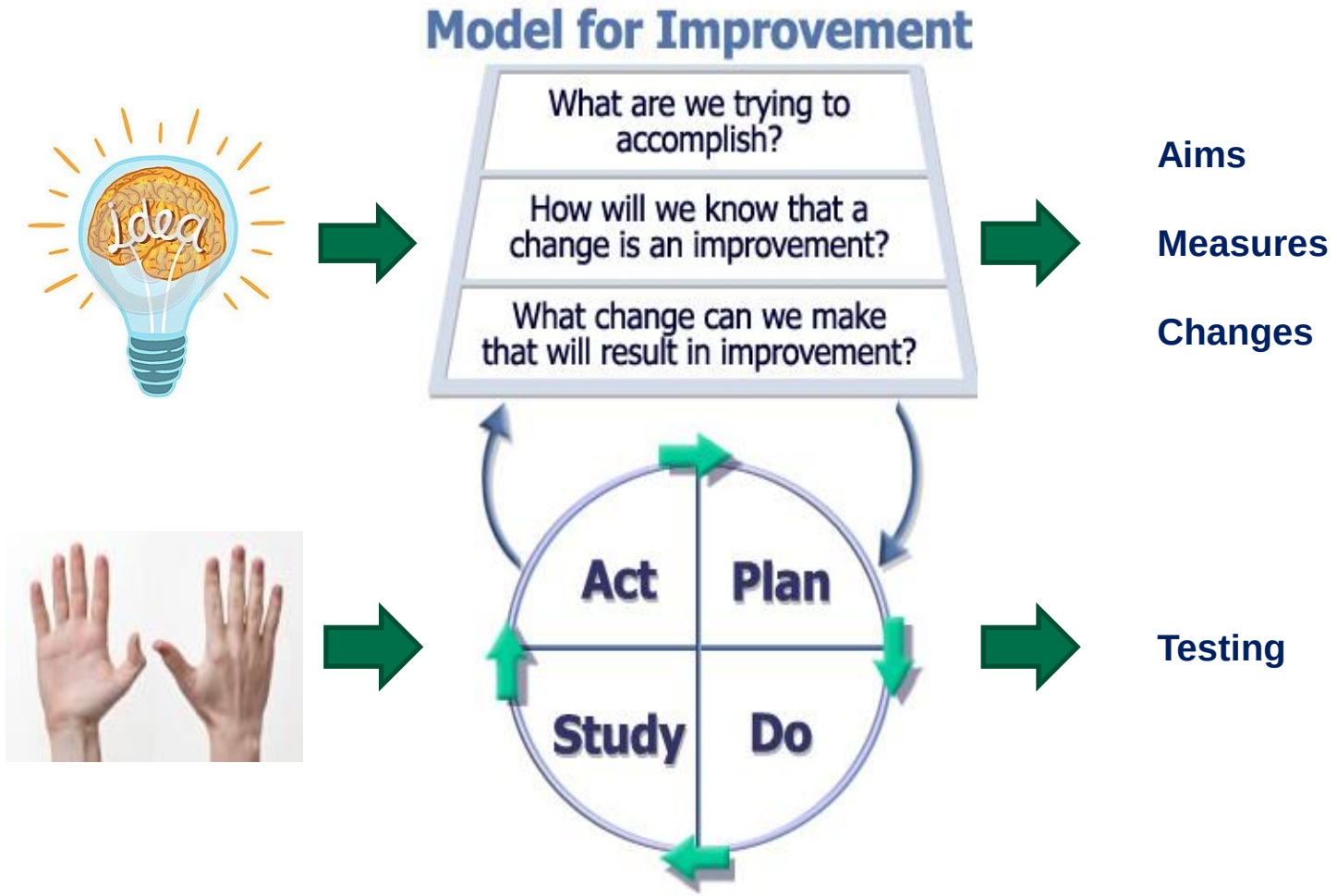




NES Quality Improvement Journey

NHS Education for Scotland. Quality Improvement Journey. 2023; Available at: https://learn.nes.nhs.scot/4095/quality-improvement-zone/quality-improvement-journey. Accessed 1st September, 2023.

The Model for Improvement



Operational Definitions

We can define our measures, which allows us to collect data confidently…

- PEWS / MEWS
- Term admissions
- Stillbirths

Operational Definitions

We also need to have operational definitions when working on our change ideas…

Locally agreed process for timely transfer to appropriate care setting

Staff able to identify, challenge and change the values, structures and behaviours that perpetuate systemic racism

Locally agreed system for families to escalate concerns

Bereaved parents, including seldom heard groups, listened to in order to identify areas for improvement

Process for timely clinical review from identification of deterioration

Provision of timely interpretation services support

Mechanism to identify staff operating out with their usual area

Engage families in perinatal service co-design

Access to tools, resources and education to support compassionate care

Visible supportive leadership

Use of standardised intrapartum risk assessment tool

Locally agreed process to escalate clinical concern out with MEWS trigger

Mechanism to measure quality of discussions and use data for improvement

Locally agreed system of communication between teams

Access to peer support

Discussions with families enable them to recognise and report deterioration

An Operational Definition…

….Is a description, in quantifiable terms, of what to measure and the steps to follow to measure it consistently.

- It gives communicable meaning to a concept
- Is clear and unambiguous
- Specifies measurement methods and equipment
- Identifies criteria

Source: R.Lloyd. Quality Health Care: A Guide to developing and using indicators. Jones and Bartlett Publishers, 2004.

The importance of Operational Definitions

‘Timely’ antibiotics

Equipment ‘issue’

‘Appropriate’ care

‘Delayed’ discharge

‘Urgent’ appointment

Provision of timely interpretation services support

The Banana Exercise

Objective:

Create an operational definition for your banana size that is clear enough for another team to replicate and get the same results

The Banana Exercise

1) Work with your table to create a step-by-step operational definition to capture the concept of banana size

2) Measure the banana using your operational definition

3) Write down the results and keep secret – do not tell the other table!

4) Swap your banana and definition with the other table

The Banana Exercise

1) Work with your table to create a step-by-step operational definition to capture the concept of banana size

2) Measure the banana using your operational definition

3) Write down the results and keep secret – do not tell the other table!

4) Swap your banana and definition with the other table

You can measure the banana any way you want – just make sure it's clear to the other team how to do it!

The Banana Exercise

The ‘winner’ is the table who **wrote** the operational definition that allowed to other table to match their measurement

The Banana Exercise

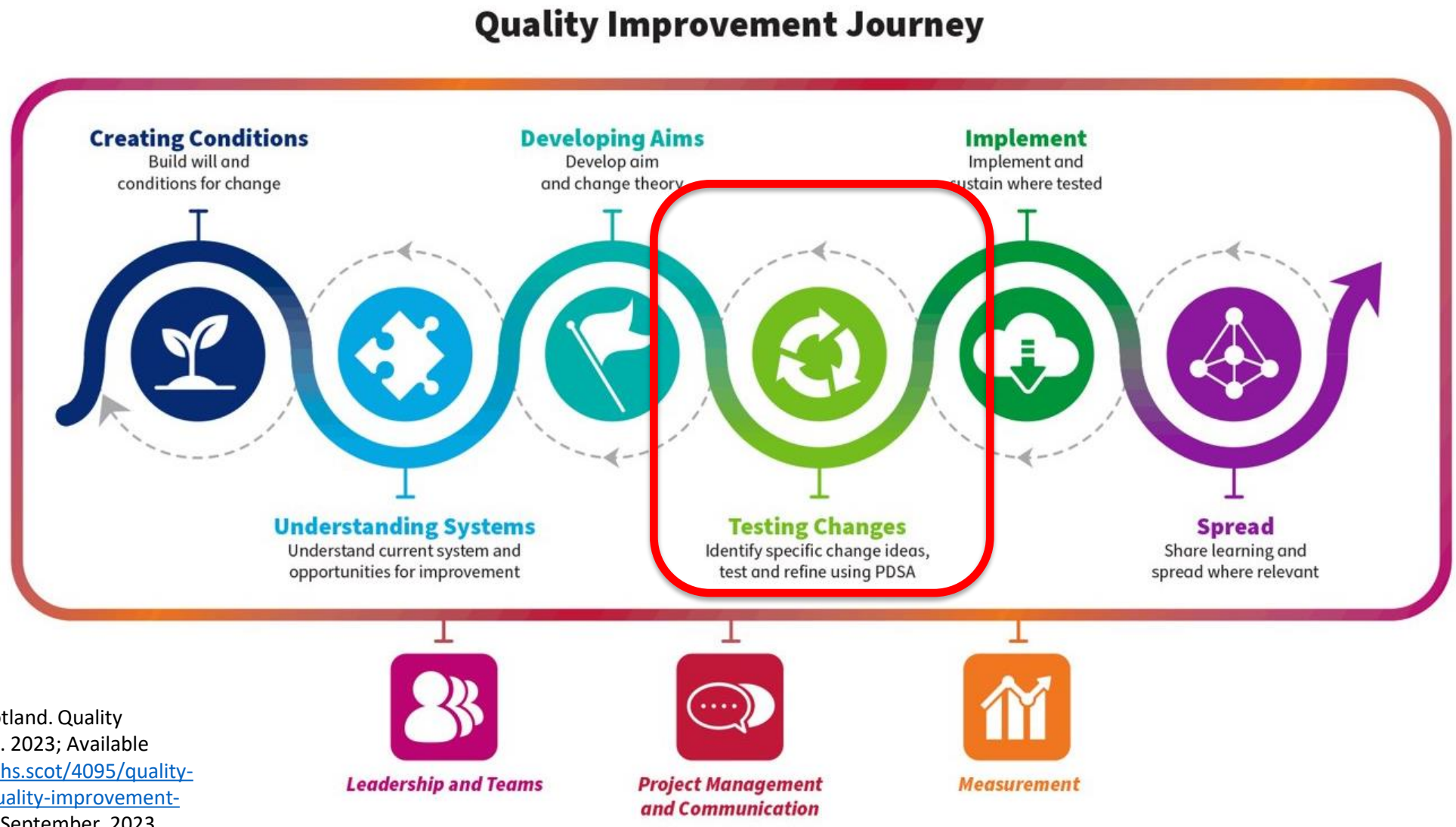
What did we learn?

- Measuring a Banana – seems like a simple task
- Complicated by the number of ways it can be done
- Writing down the steps to measure is even more complicated
- Measuring the other table's banana – highlighted need for clarity, simplicity, and what you might have missed from your own Op Def

Questions to ask:

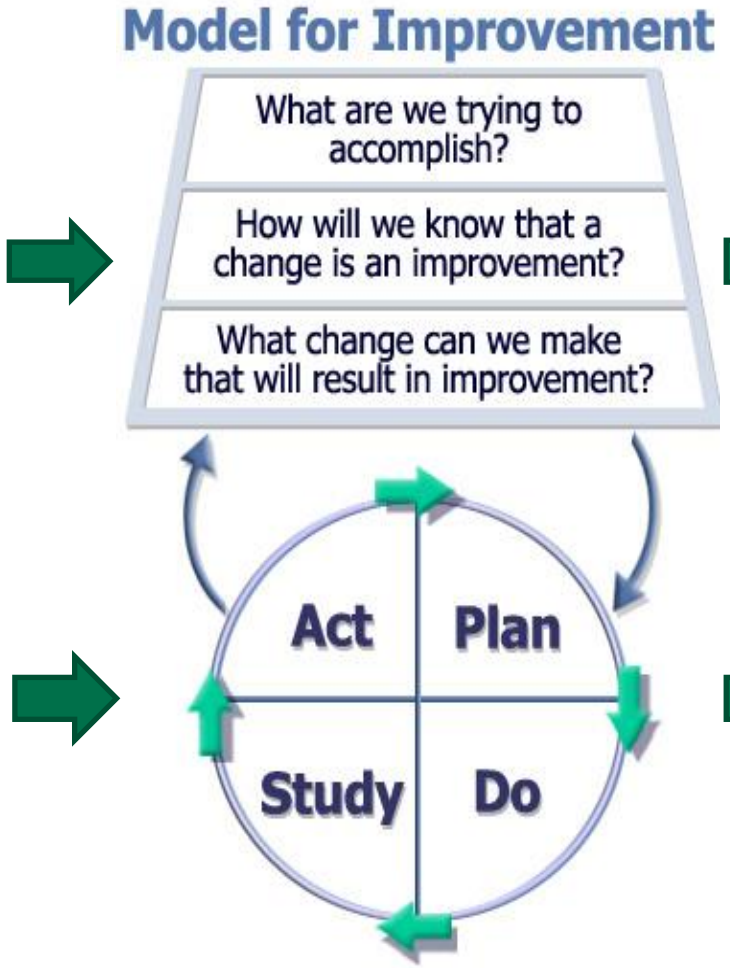
- How much detail is required in your operational definition?
- How precise does your measurement need to be?
- How user friendly can you make your operational definition?

NES Quality Improvement Journey



NHS Education for Scotland. Quality Improvement Journey. 2023; Available at: https://learn.nes.nhs.scot/4095/quality-improvement-zone/quality-improvement-journey. Accessed 1st September, 2023.

PDSA Cycles



Aims

Measures

Changes

Testing

PDSA the theory

Plan

- Have a clear objective
- Make some predictions about what will happen
- Questions and predictions
- Plan to carry out:
  Who? When? How? Where?

Do

- Carry out plan
- Document problems
- Capture feedback and observations

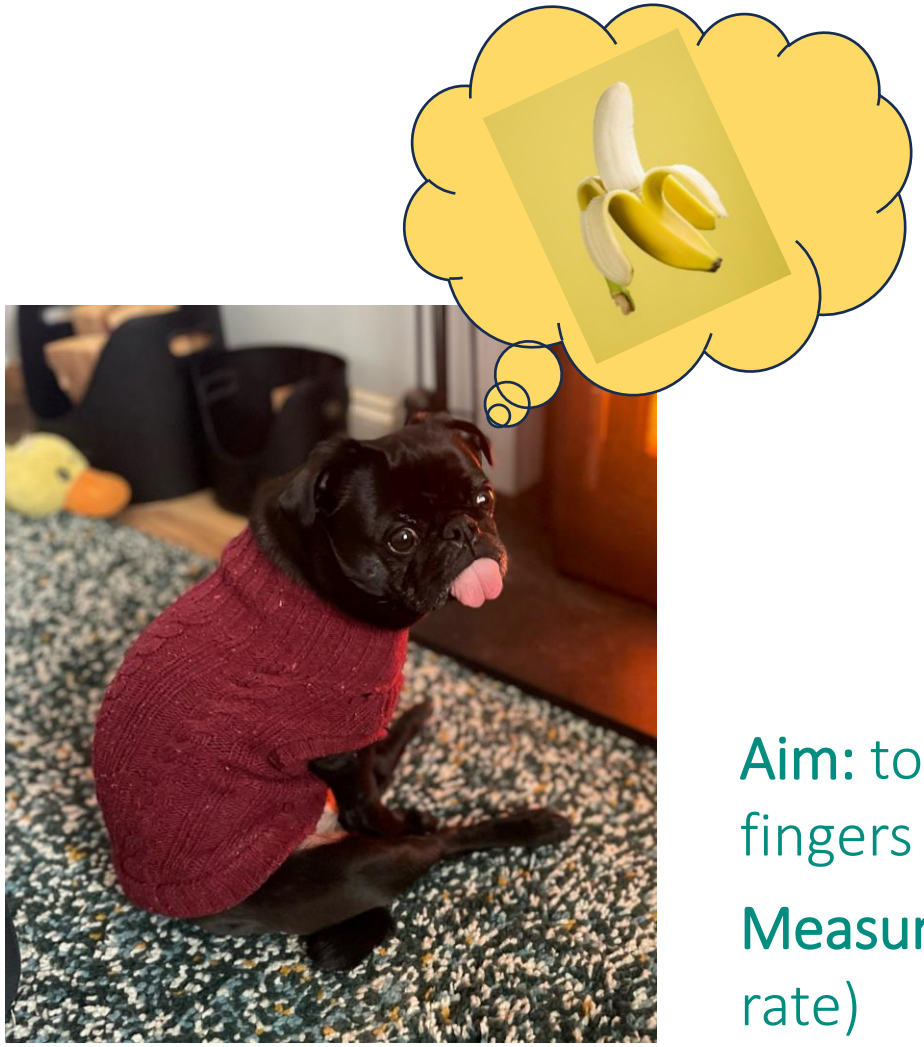
Act

- Make decisions about what to do next
- Adopt, adapt, abandon
- Ready to implement?

Study

- Analyse data
- Compare to predictions
- Summarise
- Use knowledge to update your theory about this change

PDSA in action



Plan

- Have a clear objective
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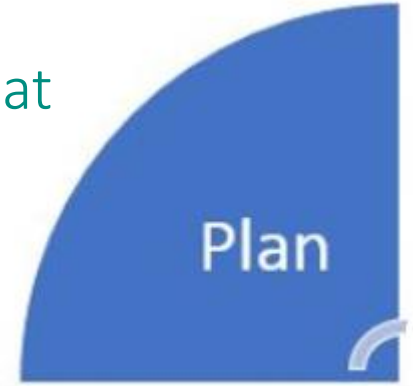
  Who? When? How? Where?



Aim: to reward Smith with a nutritious snack whilst keeping all fingers dry and intact.

Measure: % of fingers unnipped and dry post-banana (nippage rate)

Change idea: if I tell him to be calm, he won't nip my fingers

PDSA in action

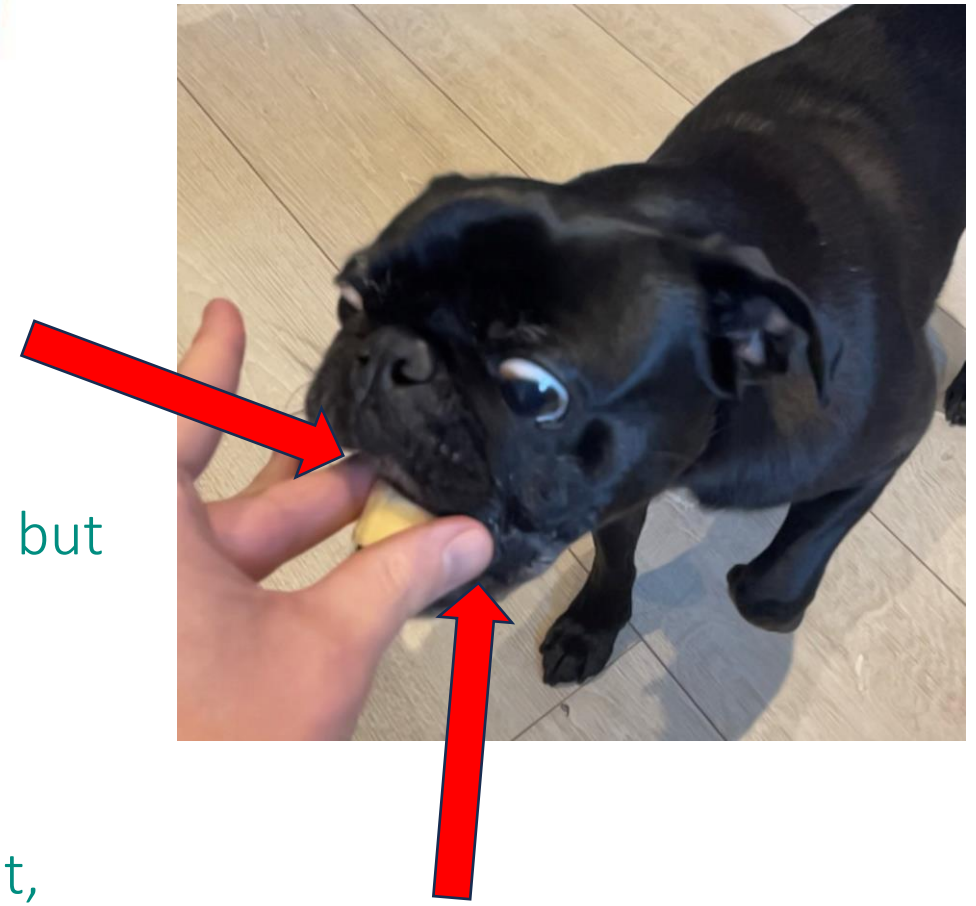
Do

- Carry out plan
- Document problems
- Capture feedback and observations

PDSA in action

Study

- Analyse data
- Compare to predictions
- Summarise
- Use knowledge to update your theory about this change



Analysis: Telling him to be calm slowed him down, but finger shape too pointy and easily nipped.

Measure: 2 of 5 fingers nipped and wet, 40% nippage/wetness rate. Too high.

Updated theory of change: being calm is important, finger shape is important

PDSA in action

Act

- Make decisions about what to do next
- Adopt, adapt, abandon
- Ready to implement?

Not ready to adopt (nippage rate too high)

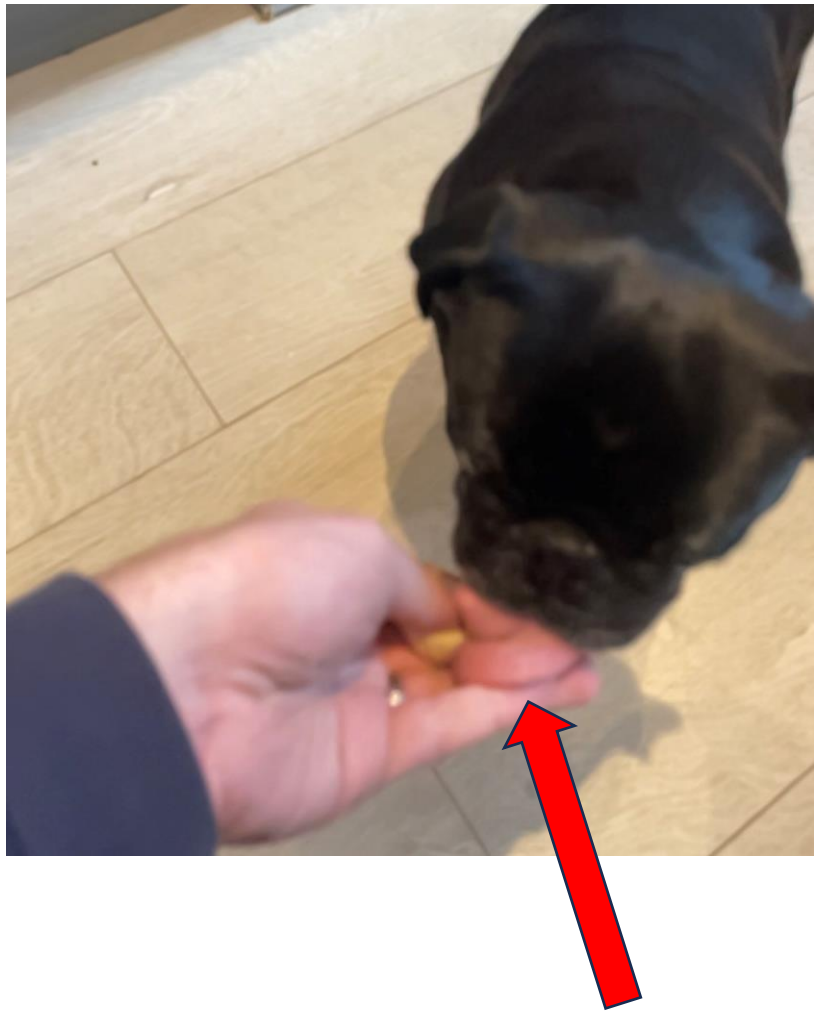
Adapt: maybe repeating orders to be calm, with banana held in a flat hand, will be better

PDSA in action

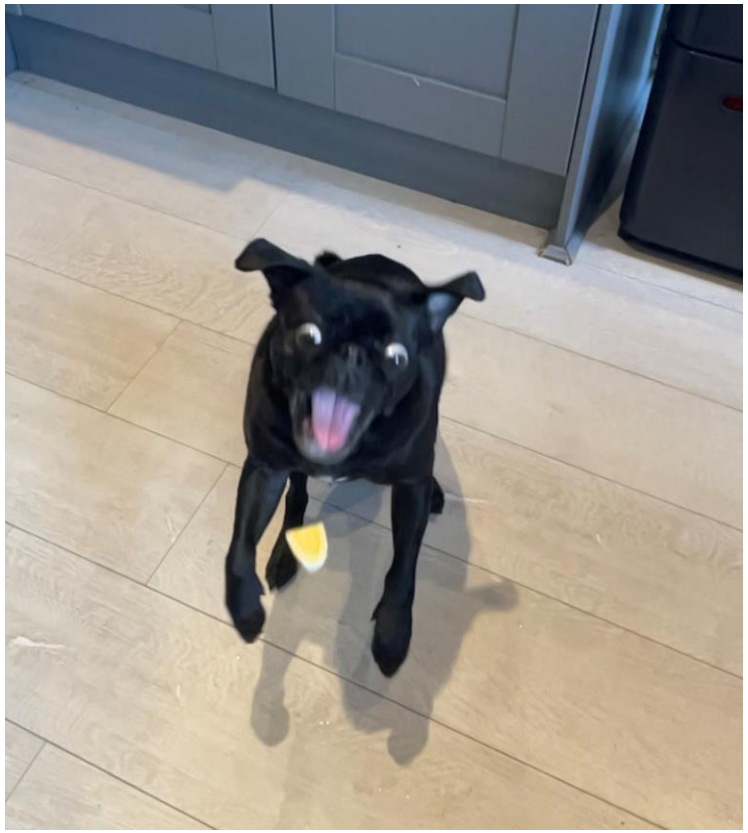
Analysis: Telling him to be calm and using a flat hand posture didn't result in a nip, but I did get a very sloppy hand.

Measure: 5 of 5 fingers wet, 100% nippage/wetness rate.

Adopt/adapt/abandon: ???

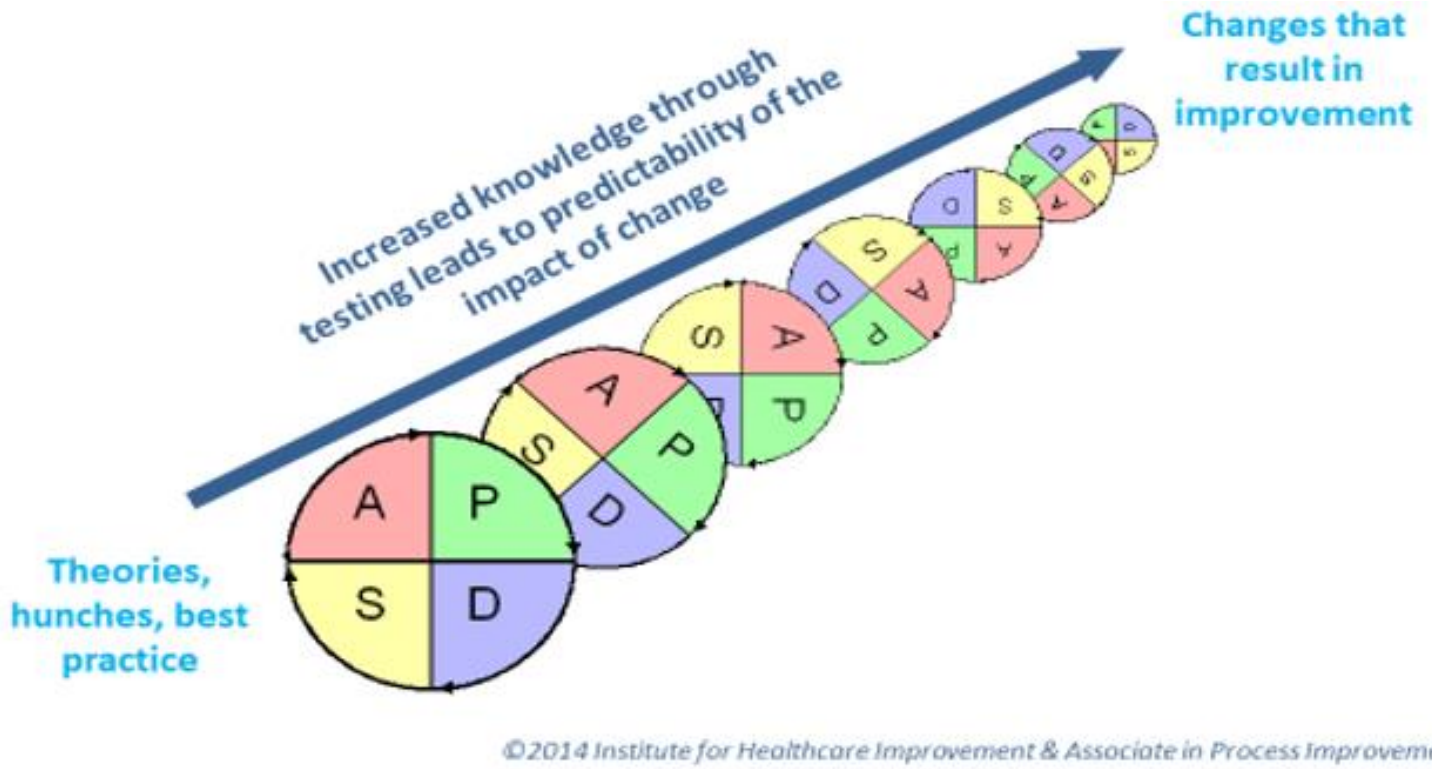


PDSA in action

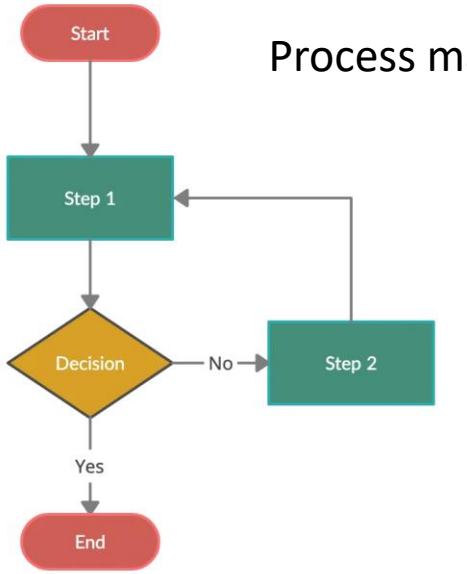


PDSA - test test test

Small sequential tests to build knowledge and ability to predict

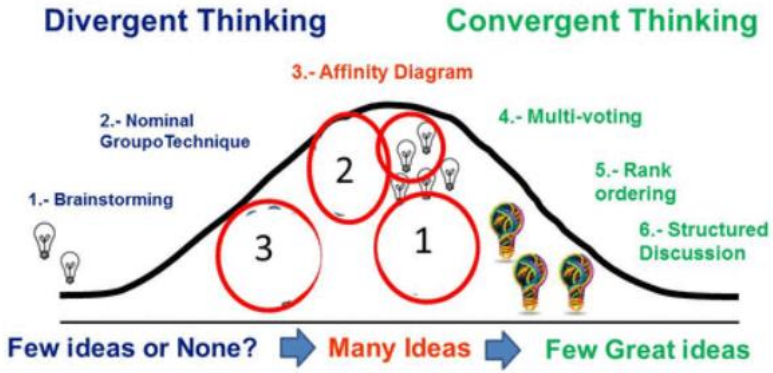


PDSA - Useful tools



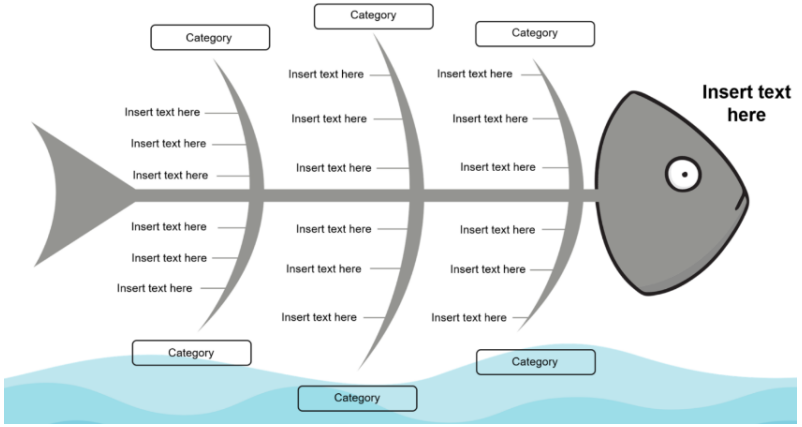
Process mapping

Convergent and divergent thinking



Brainstorming

Fishbone diagram / cause and effect



PDSA – The paper plane exercise

PDSA – The paper plane exercise

Objective:

Using multiple PDSA cycles, create a paper plane with the tools and equipment provided that will travel the furthest

PDSA – The paper plane exercise

- Use the PDSA template provide to document your tests
- Learn from each test and adapt for the next
- Be creative!

PDSA – The paper plane exercise

	Plan • Have a clear objective • Make some predictions about what will happen • Questions and predictions • Plan to carry out: Who? When? How? Where?	**Do** • Carry out plan • Document problems • Capture feedback and observations	**Study** • Analyse data • Compare to predictions • Summarise • Use knowledge to update your theory about this change	**Act** • Make decisions about what to do next • Adopt, adapt, abandon • Ready to implement?
1				
2				
3				
4				

PDSA – The paper plane exercise

The ‘winner’ is the paper plane which travels furthest – judges' decision is final!

The Paper Plane Exercise

What did we learn?

- PDSA cycles facilitate gradual improvement
- The PDSA cycle provides structure to tests of change
- Delegation of PDSA tasks helps to minimise workload and keep objectivity

Questions to ask:

- How many people need to be involved?
- What will everybody's role be?
- When and where do we start?
- How will we decide whether to adopt, adapt or abandon?

Team planning

Jo Thomson

Senior Improvement Advisor
Healthcare Improvement Scotland

Hope is not a plan

Team planning

Reflections and Learning

- Share your reflections and learning from the breakout sessions you joined this afternoon and from the morning plenary sessions

- Note down learning or examples that you could explore in your NHS Board / team

- Is there anything you would like to learn more about?

Team planning

Next steps and actions

- What are your next steps as a team?
- Who else might you need to engage with?
- What action can you take tomorrow?

Thank you


EVERY PERSON
EVERY TIME
SCOTTISH
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PROGRAMME