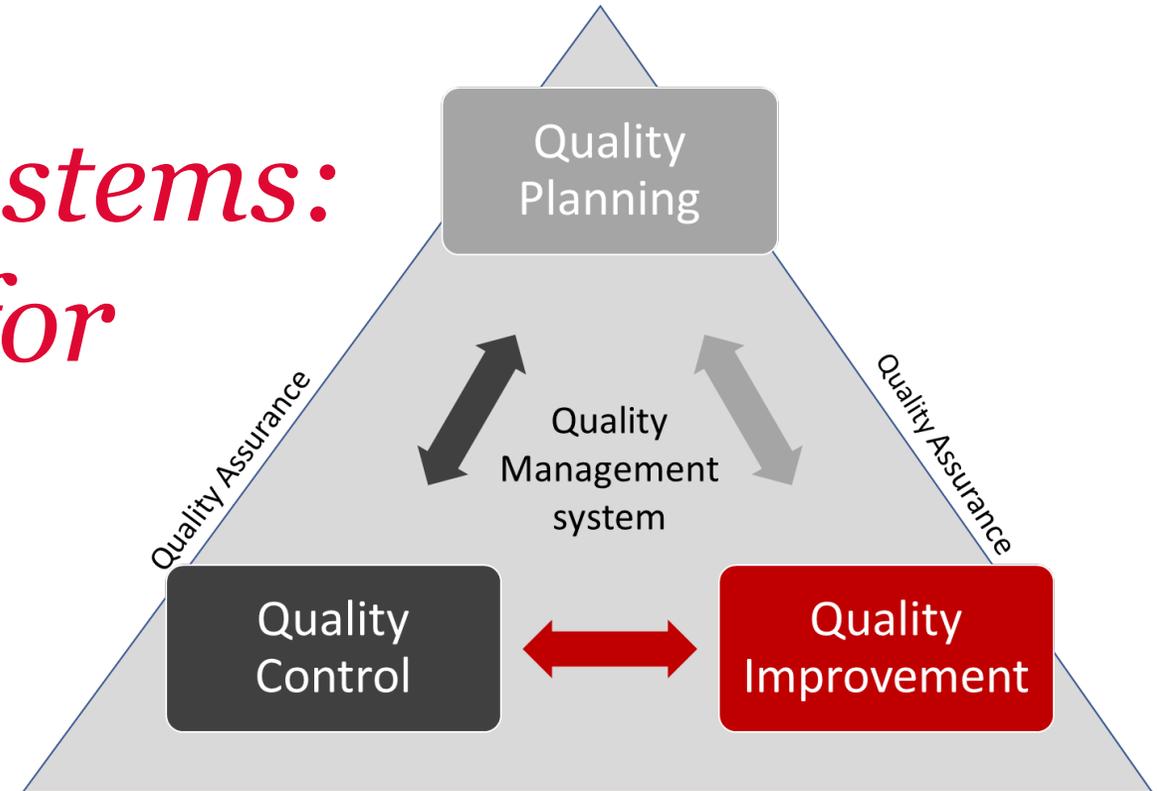




Quality Management Systems: Building the conditions for effective change

22nd September 2021



In this document...

Click links to jump to sections

1. **Presenters and Guests**
2. **Presentations:**
 - a) **Emma Adams – overview of QMS**
 - b) **Joy Furnival – Quality Management in Healthcare**
 - c) **Jon Armstrong – Industrial Perspective and Future Trends**
3. **Sum-up – Joy Furnival**
4. **Follow-up sessions**
5. **Poll results from Webinar**
6. **Feedback and comments – what people thought of the session**
7. **Summary of main group chat feed**
8. **Summary of feedback from groups**
9. **Links to useful resources**
10. **The Health Foundation Q Community Contact Information**

Welcome!

Hosts:



Emma Adams

*Independent
Improvement
Consultant*



Dr Joy Furnival

*Chief of Regulatory
Compliance &
Improvement*



Jon Armstrong

Founding Partner



Guests:



Dr Iain Smith

*Programme Lead -
Improvement
Methodology*



Frances Wiseman

*Deputy Director of
Transformation*



Dr Andy Heeps

Managing Director



Session format



Celebrity interview
(learning from
experience!)

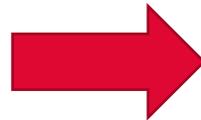


The future of QMS:
learning from other sectors

Welcome &
Introductions



Overview of
Quality Management
(Juran trilogy)



QMS in the NHS –
an overview of
progress in healthcare

Group Discussions



Summary & Close

Extracts from Zoom Chat
Links posted in Zoom Chat
Participant feedback on session

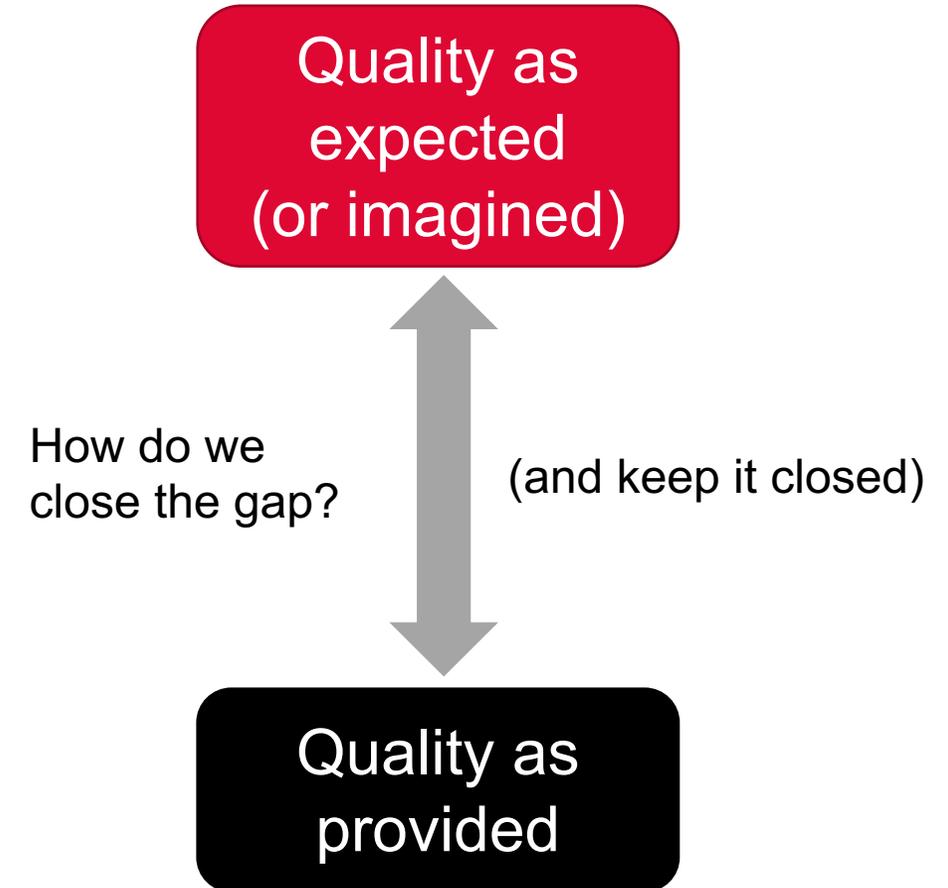
are all to be found at end of this deck

A Brief overview of Quality Management – Emma Adams



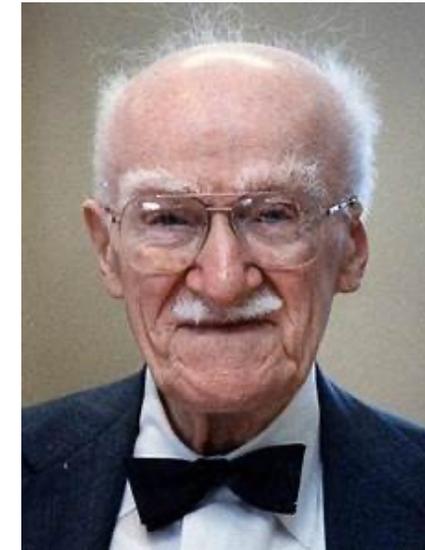
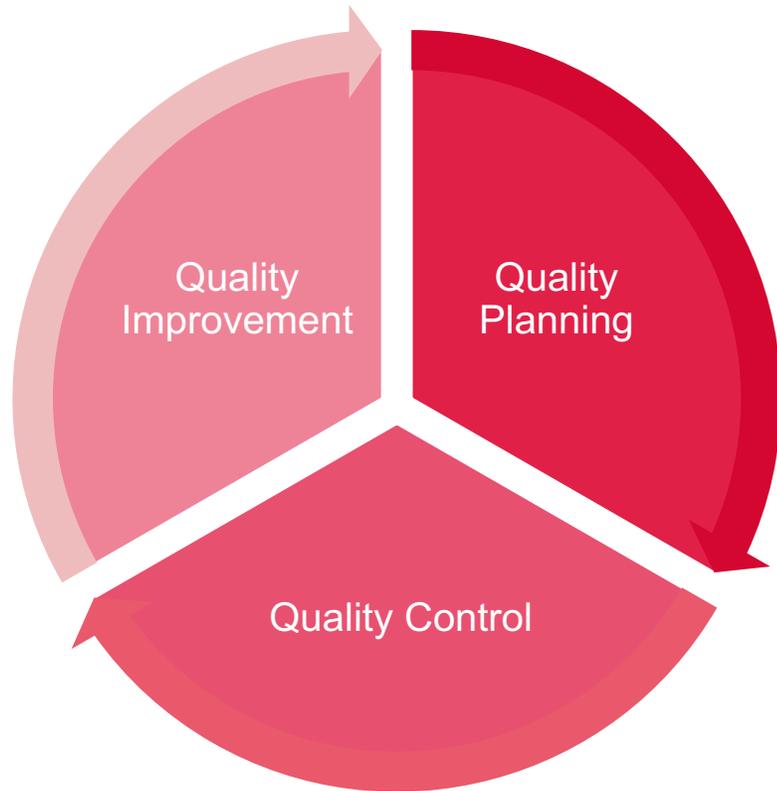
Sound familiar?

‘Every system is perfectly designed to get the results it gets.’



‘...health system leaders note **persistent challenges** in building resilient and responsive organisations that **continuously, reliably, and sustainably** meet the evolving needs of their communities.’ *IHI*

Quality as the organisational strategy – Juran Trilogy™ of Quality Management



“High performing organisations have quality management systems with quality improvement, quality control and quality planning co-ordinated and embedded.”

Quality Planning

- Understanding the needs of your patients, population and other stakeholders
- Developing a strategy that seeks to meet those needs
- Designing environments, using technology & specified care practices, to deliver care that meets those needs
- Establishing a sustaining & rewarding work environment for staff
- Putting in place mechanisms to observe and manage performance and gather feedback for further improvement

What do you need to put in place to achieve the quality your patients and stakeholders require?

What's expected of me?



Quality Control

- Knowing the quality expected – and observing and monitoring this daily
- Standardising as much as possible, customising when it adds value
- Detecting emerging problems quickly
- Taking immediate steps to resolve issues using problem-solving methods
- Escalating problems that need deeper thought into quality improvement initiatives

How do you keep the quality you deliver under control?



What's today's plan?



How well are we doing?



Why is there a gap?



What can we do about it *now*?

How am I doing every day?

Quality Improvement

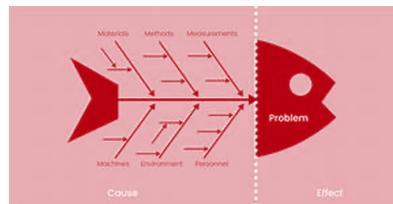
- Using a variety of methods and tools to:
 - Analyse the current process/care delivery
 - identify the symptoms and causes of poor quality
 - develop a theory of what is required to improve the process/care delivery
 - Use measurable methods to develop, test and implement changes
 - If needed, redesign relevant approaches and processes
- Use Quality Control to monitor the new approach to ensure it delivers improved quality

How can you make the step-changes needed to deliver better quality?

How can I improve my quality?



We have huge variability throughout the week

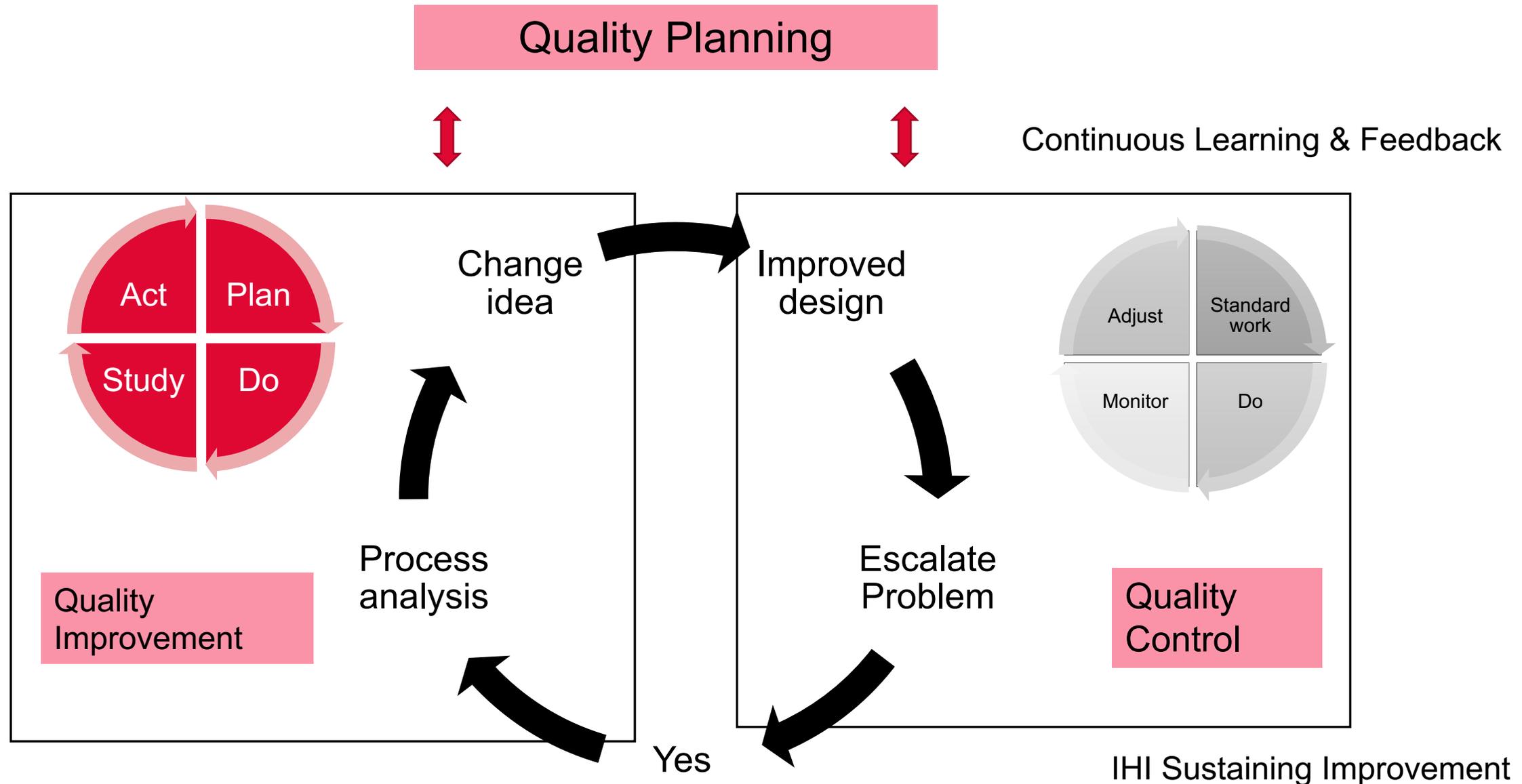


We need to understand the problems more deeply



Let's test and learn what works

Relationship between Planning, Improvement & control



Quality control vs Quality assurance



Quality Control – is everyday work and management to control quality (internally focused)

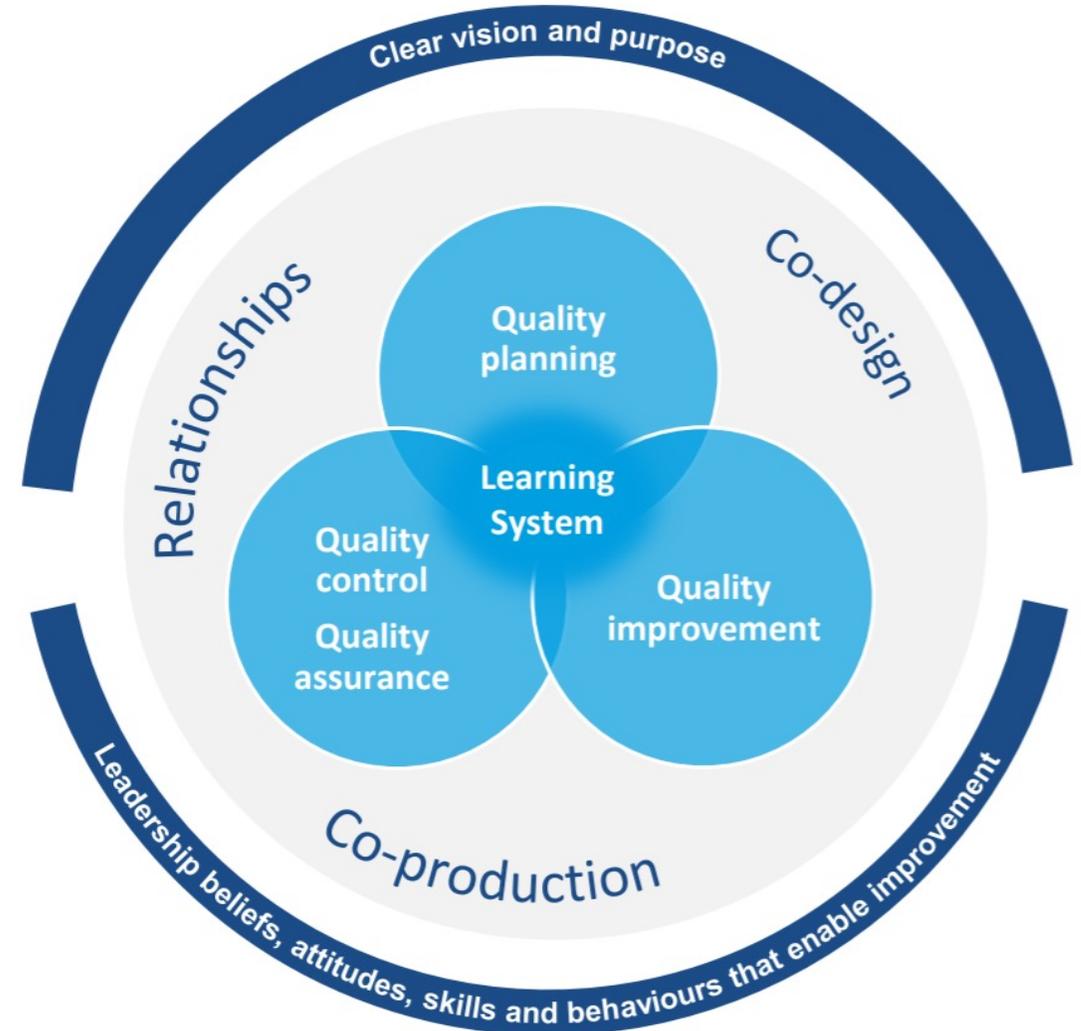
Quality assurance – verifies that this control is being maintained through monitoring *after* the event (externally focused)

Juran Quality Handbook

Features of a Quality Management system

Features of a quality management system:

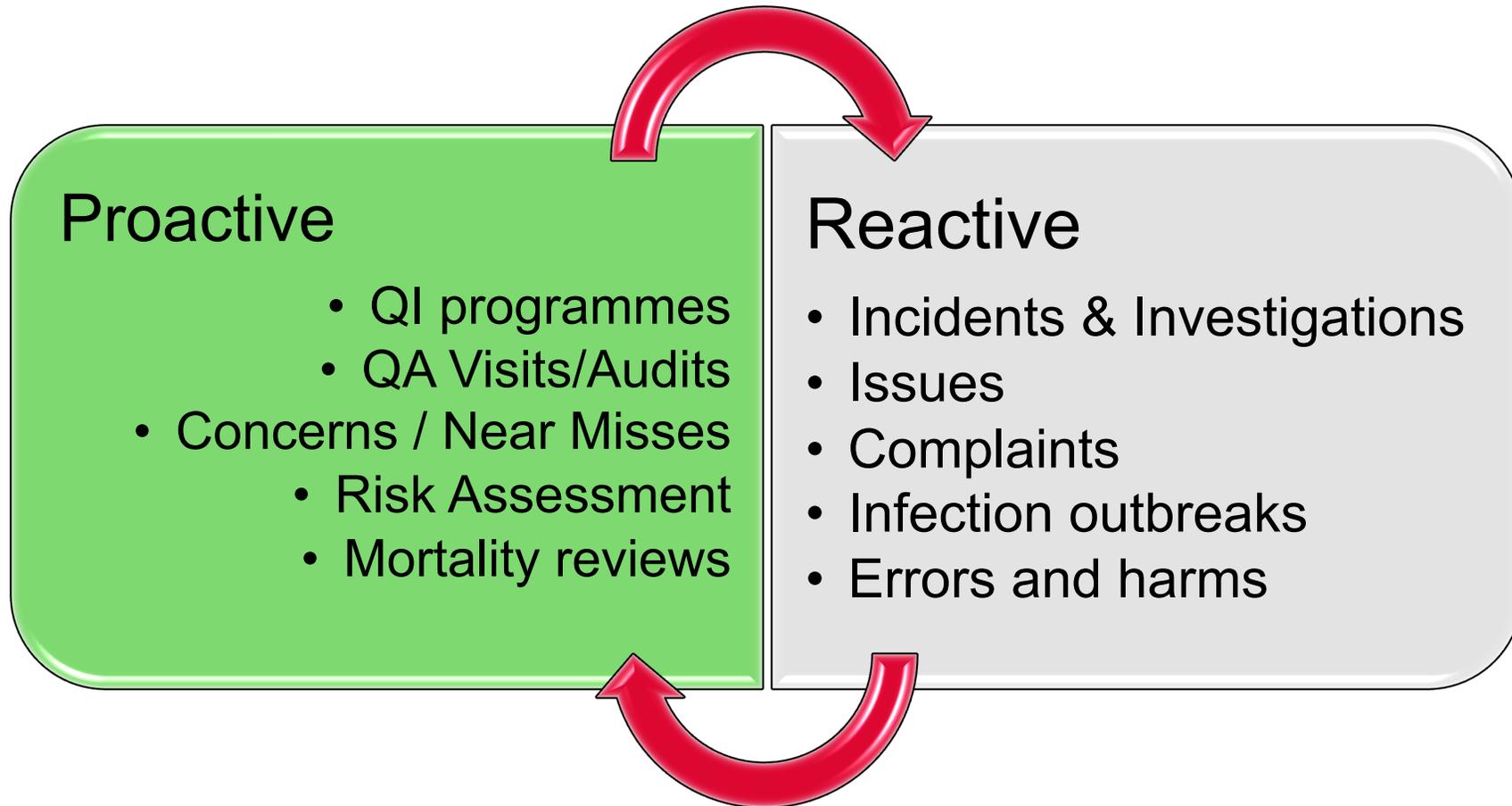
- Articulated system – supported by infrastructure
- Strategy is aligned throughout and executed through daily activities
- Continuous improvement at every workplace every day
- Step-change improvement is prioritised and resourced
- Capability and capacity to improve is developed
- Leadership supports & coaches the system
- Social networks are essential for relational change & role-modelling
- Evaluation to build learning



Quality Management in Healthcare – Dr. Joy Furnival



Shifting the balance



“Celebrity” interviews

Please ask your questions
in the Zoom chat



Dr Iain Smith

*Programme Lead -
Improvement Methodology
NHS England and NHS
Improvement*



Dr Andy Heeps

*Managing Director
University Hospitals
Sussex NHS
Foundation Trust*



Frances Wiseman

*Deputy Director of
Transformation
Portsmouth Hospitals
University NHS Trust*

The Future of Quality Management: Industry Perspective and Future Trends

Jon Armstrong



Founding Partner
jon@changeway.co

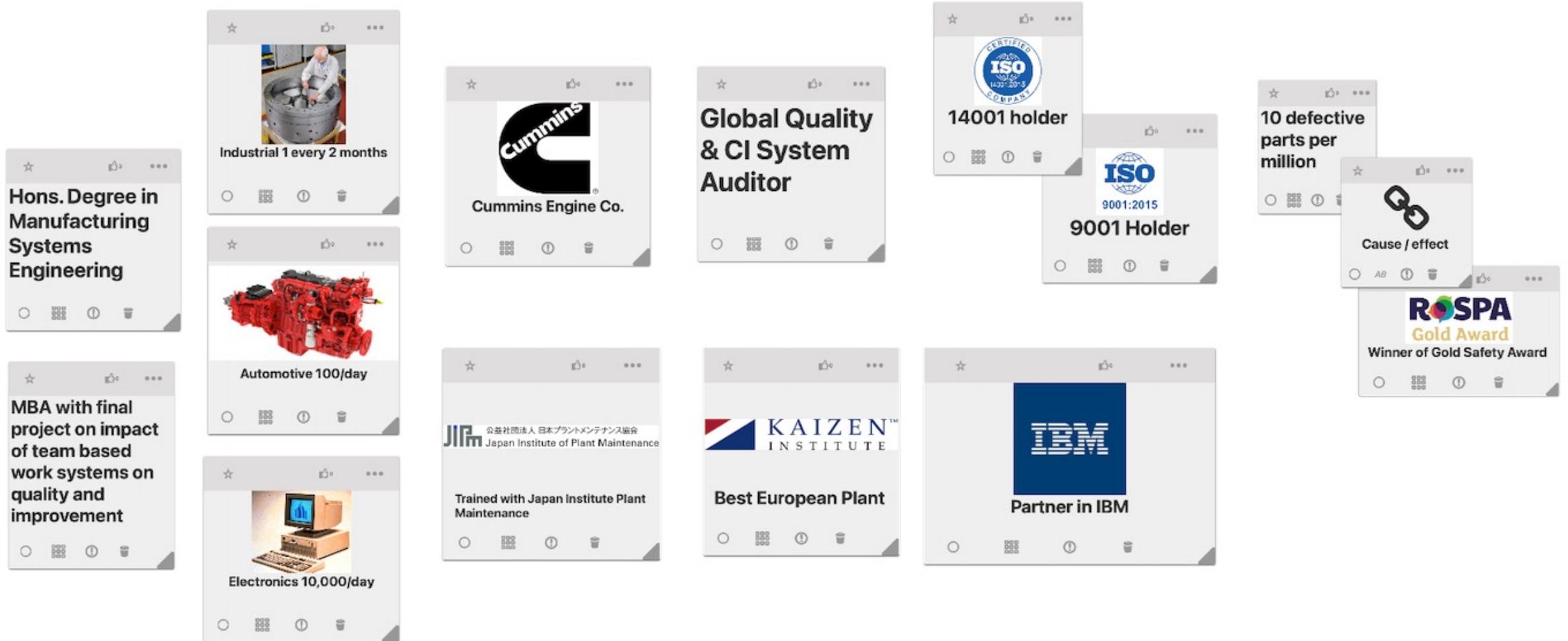


“Work anywhere,
Improve everywhere.”



www.changeway.co

Experience of QMS in Industry / Operations



Key insights from Industry / Operations

Insights:

1. Making widgets is not easy ;)
2. Deep understanding of how products and services were delivered
3. Rigour of quality control and planning
4. Emphasis on process capability and defined standards
5. Correct measurement systems

It's more than returns to the regulator

Make quality control visible - 'see through' care



Screenshots from Changeway Digital Process Control Board



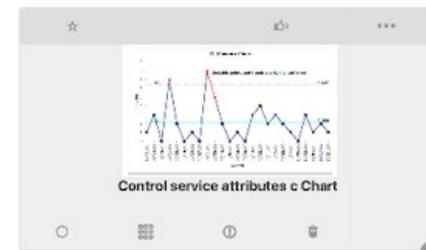
Visual controls - good day or bad day at a glance



Ability to stop, swarm and solve problems

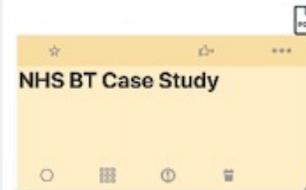
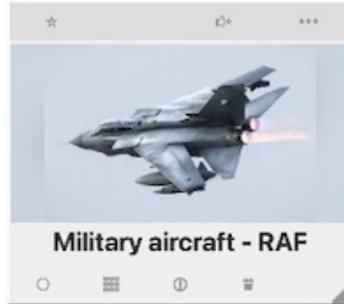
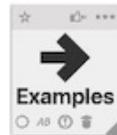
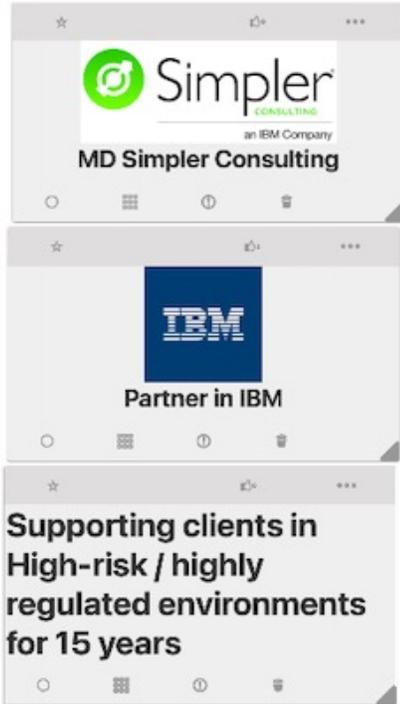


No repeat occurrence culture



Control over attributes and variation reduction; FMEA / SPC

Experience from Transformation Consulting



>5,000 employees,
1.7 million units of blood & 3,500 organs / year

NHS
Blood and Transplant

Improvement Highlights

- Productivity doubled in 4 years: from lowest in Europe to top quartile
- Savings >£55m annually delivered (to reinvest in NHS front-line)
- Lean Training:
84% of organisation trained to introductory level,
25% to advanced level (allowing them to run their own Improvement events)
- Sustainable culture of continuous improvement and innovation established.

Leadership Perspective

NHS
Blood and Transplant



Clive Ronaldson
Director, Blood Supply (2005 - 2015)

"The productivity levels achieved through OIP (Operational Improvement Programme) make NHSBT the best in the UK and placed in the top quartile in Europe."

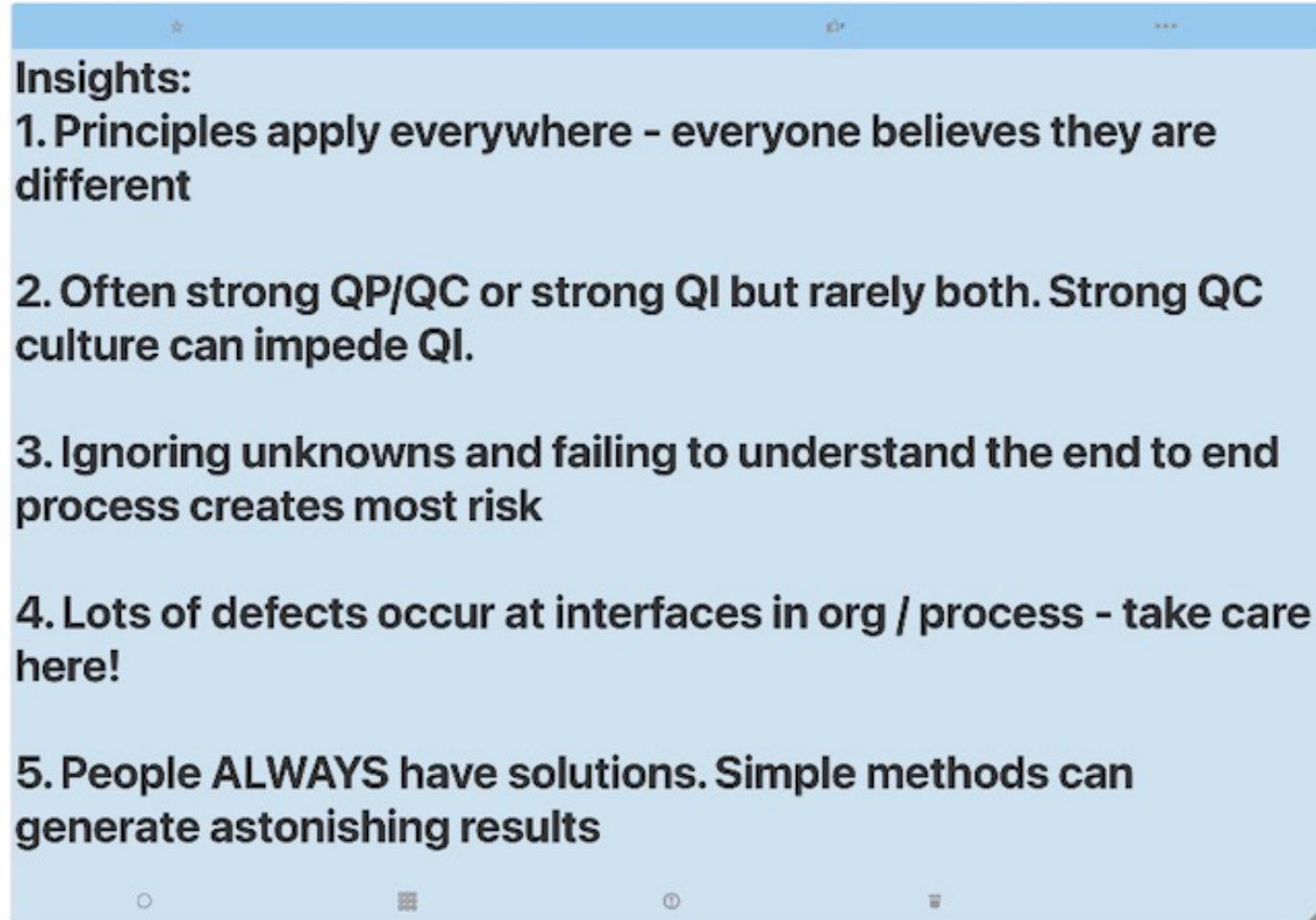
OIP is a Lean Transformation Management System



Lynda Hamlyn CBE
Chief Executive (2007 - 2014)

"[Lean transformation] has also helped us do more with taxpayers' money and most importantly it has helped us to focus even more clearly on our life-saving mission."

Key insights from Transformation Consulting



Insights:

- 1. Principles apply everywhere - everyone believes they are different**
- 2. Often strong QP/QC or strong QI but rarely both. Strong QC culture can impede QI.**
- 3. Ignoring unknowns and failing to understand the end to end process creates most risk**
- 4. Lots of defects occur at interfaces in org / process - take care here!**
- 5. People ALWAYS have solutions. Simple methods can generate astonishing results**

Quality Management – Origins and Perspectives

Dr Deming - 'Improve your quality and productivity improves automatically - it's a chain reaction'

Tom Peters - 'Thriving On Chaos' Chief reason for failure is not tapping into our work force's potential

Joe Reilly - 'Never time to do it right, always time to do it again'

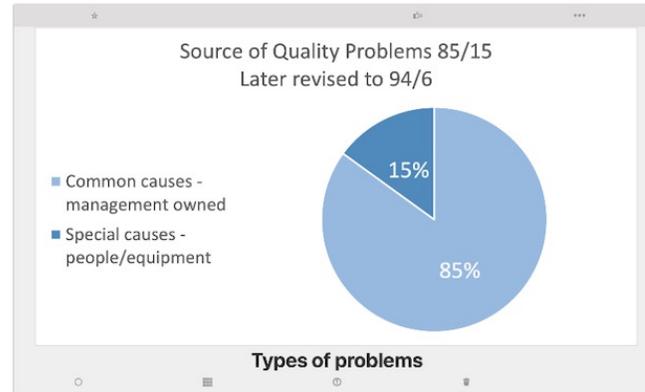
When problems occur do we add steps or take steps away? Processes degrade over time if left alone



Improving patient experience will always improve organisation performance

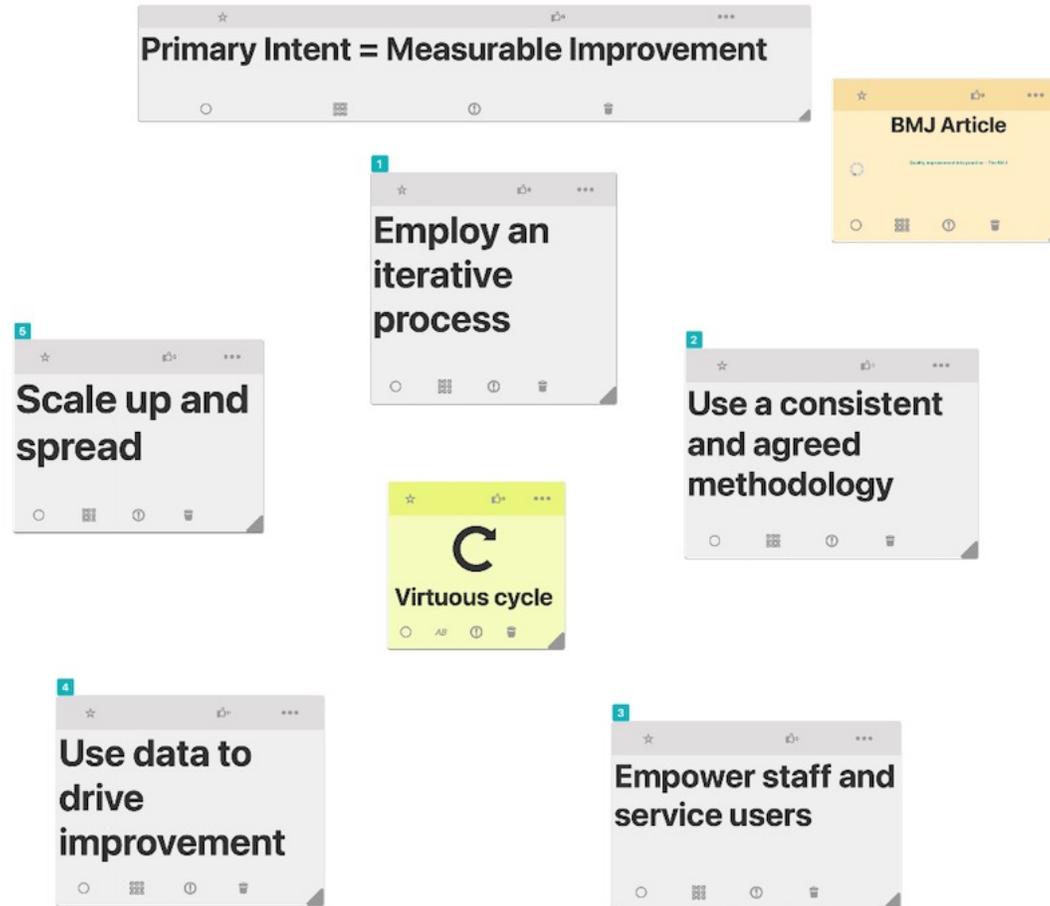
Solve problems at lowest level possible and highest level necessary

Basic quality tools rigorously applied by a knowledgeable team will always deliver benefit.....if we implement and continue to improve



QI Methods follow the levels:
60% of effort in huddles and Kata
30% on pathway Kaizen/PDSA
10% on strategy deployment and breakthroughs

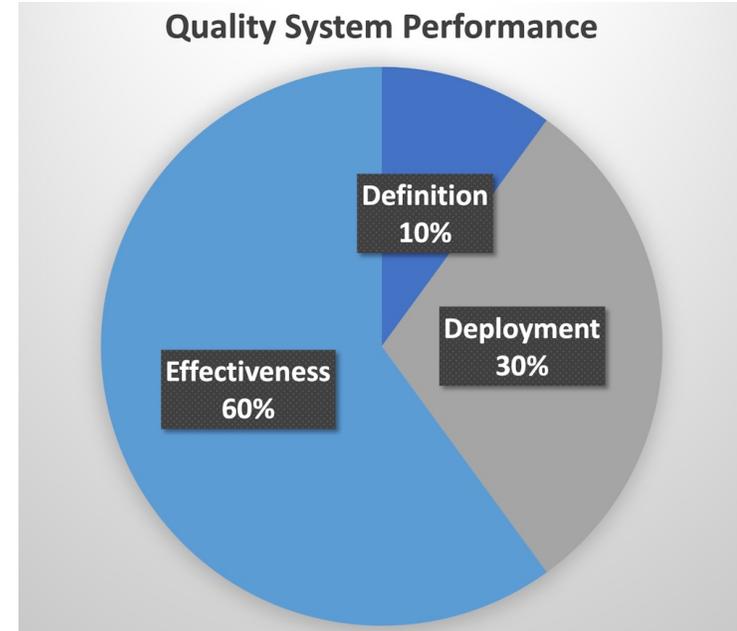
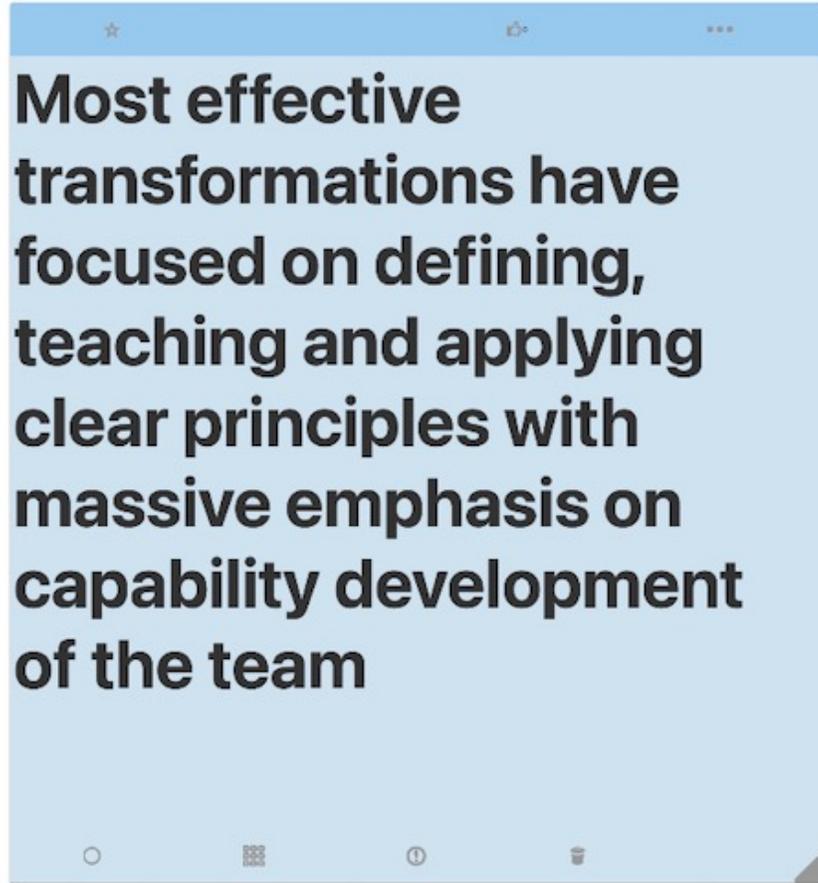
Quality Management – Focus on Principles and People



<https://www.bmj.com/content/368/bmj.m865>

Quality System Performance

It's about results!



Deming's 14 Points

- | | |
|---|---|
| <ul style="list-style-type: none"> Create constancy of purpose towards improvement Adopt the new philosophy Cease dependence on inspection Move towards a single supplier for any one item Improve constantly and forever Institute training on the job Institute leadership | <ul style="list-style-type: none"> Drive out fear Break down barriers between departments Eliminate slogans Eliminate management by objectives Remove barriers to pride of workmanship Institute education and self-improvement The transformation is everyone's job |
|---|---|

QMS Future: Data, technology, new ways of working

Technology is critical to enable these principles

The Health Foundation states 'collaboration is an essential component of effective learning and improvement'

So, what's the future?
Look ahead

Transformation
What we need next is no longer driven by Covid

Beyond a response to Covid

Mirage of finish line

Let's set our sights higher

Let's aim higher

Opportunity 3: We seriously undervalue our change data

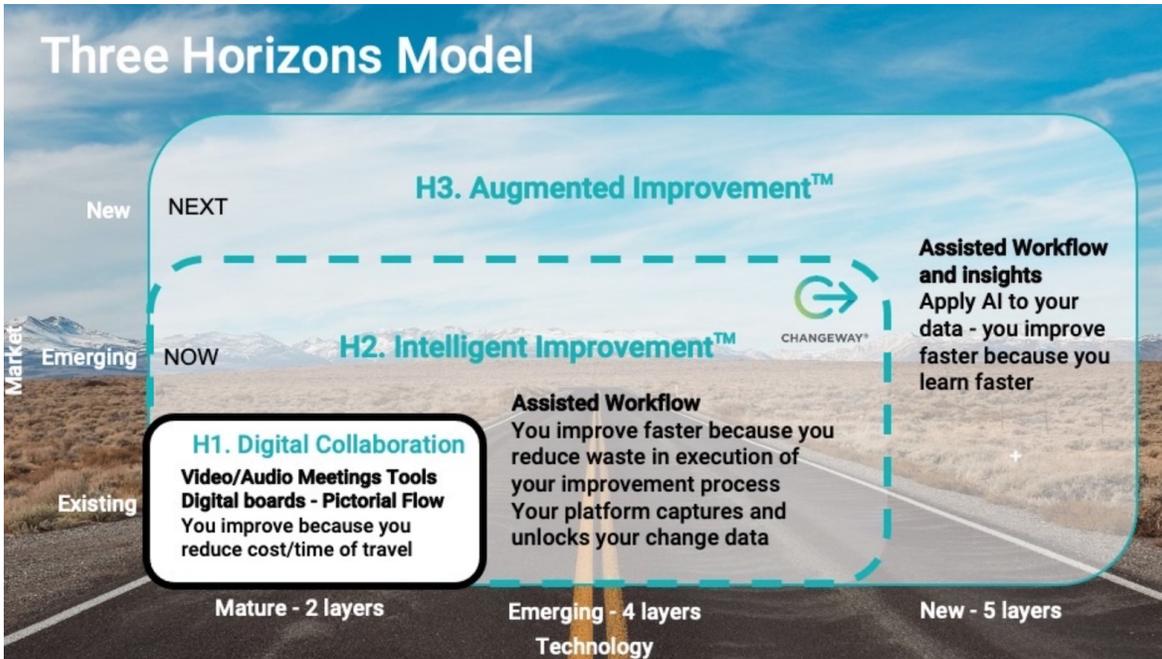
Capture - the most difficult part
Unlock - push it to a big data platform
Gain insight - through analysis and machine learning

Can you harness your data using collaboration tools?

46% TAGGED OR CLASSIFIED DATA	14% BUSINESS CRITICAL DATA
54% DARK DATA, LIVING FAR BEHIND THE LINE OF SIGHT	32% REDUNDANT, OBSOLETE AND TRIVIAL, OR NOT DATA

Value your data

QMS Future: Data, technology, new ways of working



“Using digital tools simply to overcome physical barriers leaves a considerable amount of value on the table.

The real prize with digital is harnessing your data to learn, share knowledge and improve faster.

The early adopters will reap big rewards.”

Jon Armstrong - Changeway

Sum-up – Joy Furnival

Good **introduction** and **theory** – relevant to the range of experiences on the call.

We've reviewed the **Juran Trilogy** – how **Quality Planning, Improvement and Control** should be **integrated**.

Key learning: **How do we ensure we know what is expected (standard), where we are (performance), and the gaps we need to close?**

As a community of improvers, **we have not focused enough of the role of Quality Control to improve patient experiences.**

Learn from areas where QMS have been established for longer (radiology etc.). We are 'a bit sparse' on good examples in wider healthcare settings – clear need for improvement!

How do we **define and deploy our priorities?** How do we **focus and align** our endeavours across organisations and ICS?

How to **integrate what we** (as improvers) **do with the way the organisation works?**

Model the right behaviours in the Gemba: respect for people.

Clear need to continue to build the conditions for Improvement – give people **permission to experiment, address the 'fear of failure' etc.**

How to **develop strong processes** – what can we **learn from the private sector?**

(Private sector in 1950s / 1960s was where Healthcare was in 2000s. It's a myth that private sector is different – the progress it has made shows what is possible.)

How to turn Strategy into action?

What's our next step as a community, and as individuals?

Follow-up sessions

We're delighted by the level of engagement and participation.

It's clear that there is appetite for follow-on sessions to explore in more detail some of the themes raised as we have looked at Quality Management Systems.

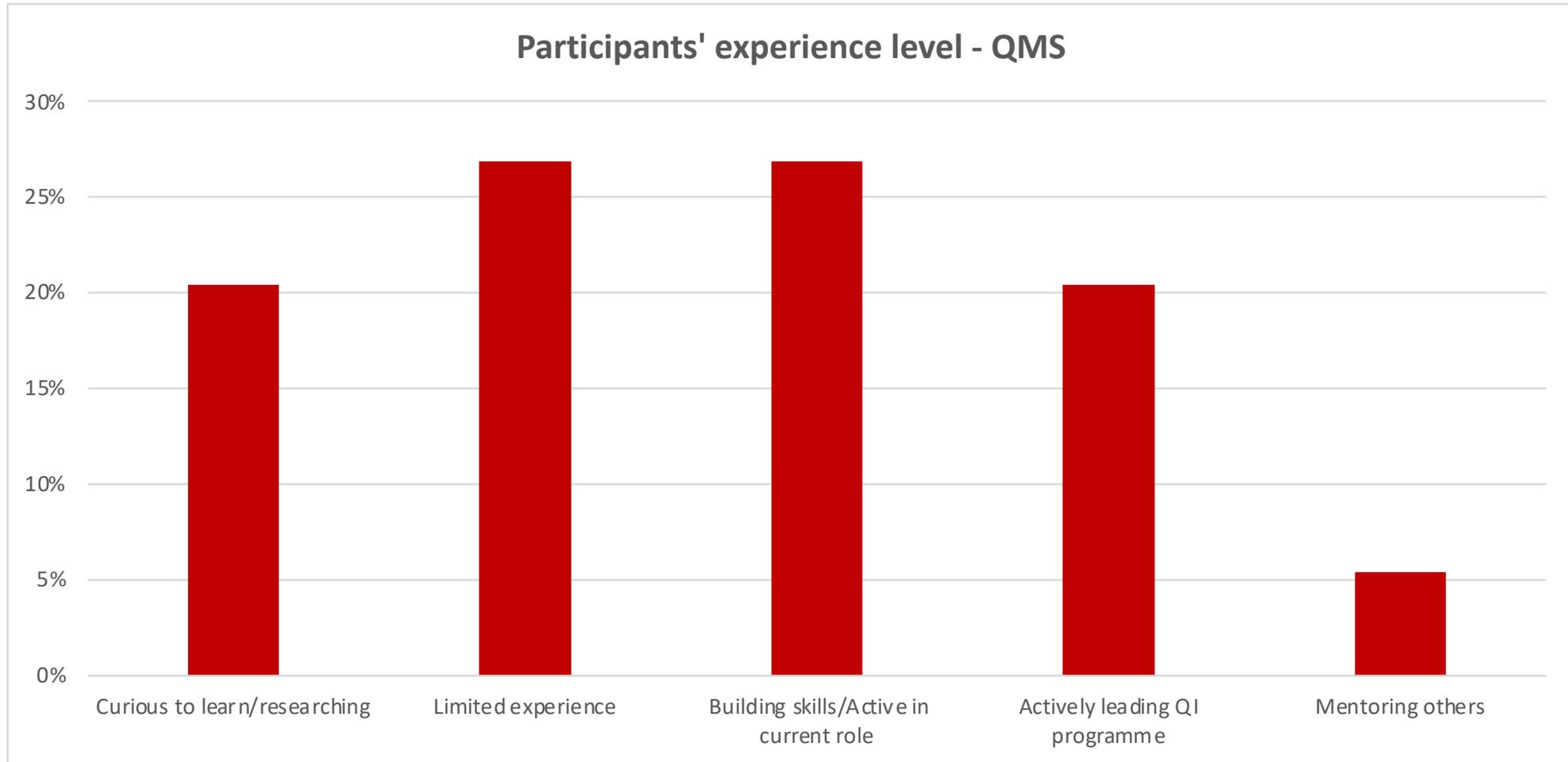
We will review the Chat from the main session and break-out rooms, and then work with The Health Foundation / Q Community to arrange a series of follow-up events covering the topics you've told us you would like us to dive deeper into.

Stay tuned and look out for updates #QcomQMS

Thanks

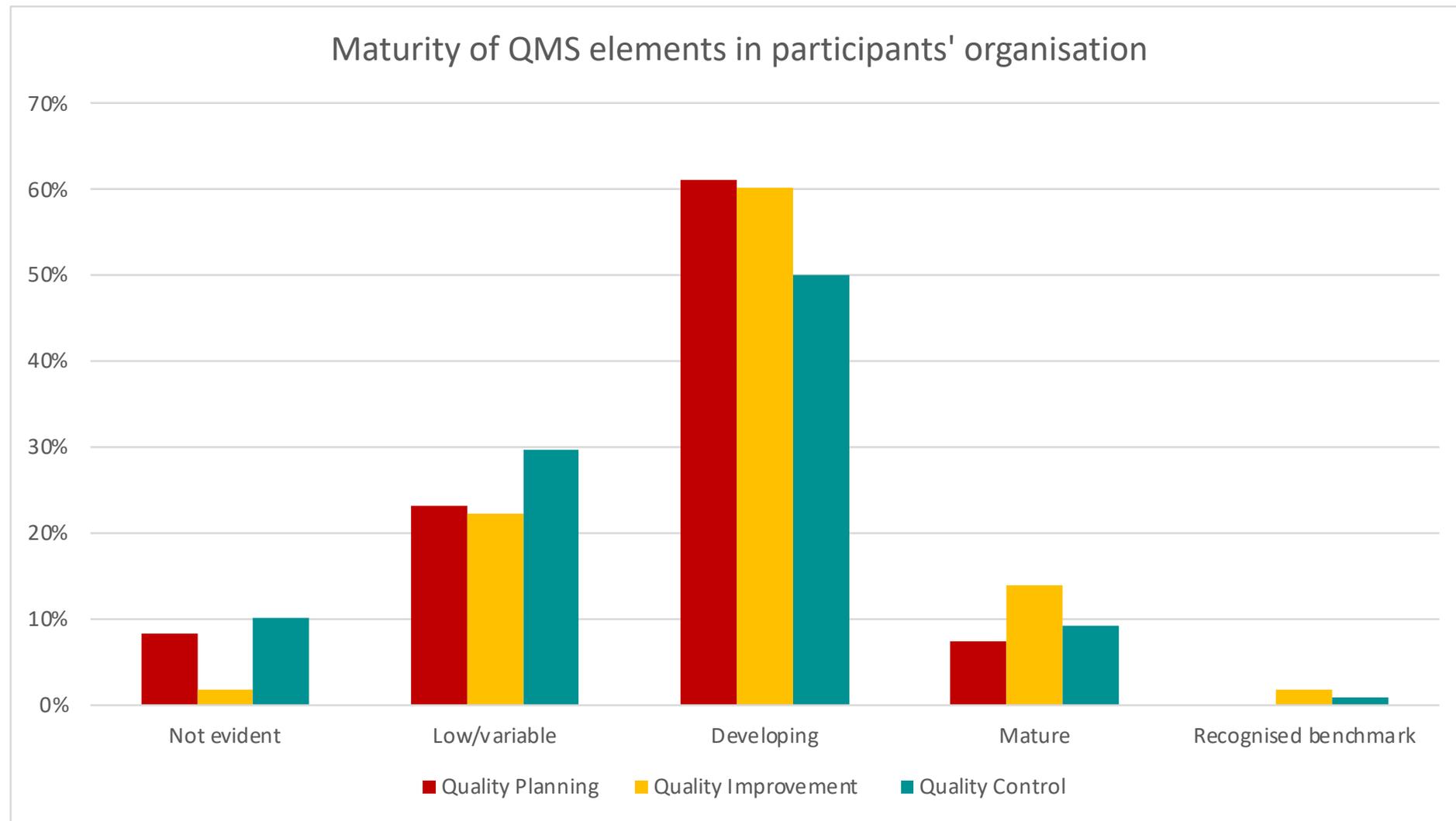
Emma, Joy, Jon

1st Poll:



Responses from 107 of participants on call

2nd Poll:



Responses from 108 of participants on call

What participants thought...

"Brilliant Session, thank you."

Adele Coulthard, Head of Service Improvement, North Regions, NHSEI

"Really enjoyed this. Plan to re-watch and has reinvigorated my curiosity in QP and QC alongside - and in providing clarity for - QI activity."

Jason Nicol, Head of Service, Woodend Hospital

"I will watch the recording and review the slides later – so much content to reflect on."

Jane Sturgess, Associate Dean, Health Education England.

"Some great reinforcing nuggets in there, Jon*. Thanks."

Adam Sewell-Jones, CEO Newham University Hospital and Group Exec Director Barts Health.

* Jon Armstrong, Changeway

"Really valuable 2 hours; lots of great insights."

Giles Adams, Associate Director of Quality and Compliance, South East Coast Ambulance Service

"Really helpful session. Thank you."

James Wright, Associated Director of Quality Assurance and Clinical Compliance, Gloucestershire Health and Care NHS Foundation Trust.

"A really thought-provoking, practical and re-energising session."

Kevin O'Hart, Patient Safety Manager, Colchester Hospital University NHS Foundation Trust

"Really helpful and inspiring session and would look forward to more sessions re QMS in the future."

Michael Canavan, Portfolio Lead, Healthcare Improvement Scotland.

"Fascinating, inspiring and thought-provoking in equal measures."

Nick Holding, Improvement Manager, NHS Improvement

"It's been a great session. I look forward to many more."

Mandip Sohan, Programme Manager Central Cheshire Integrated Care Partnership

"Thank you for a great webinar today - lots to take away and reflect on."

Sammy Rokoszynski, Quality Improvement Lead, North East London NHS Foundation Trust

"The richness of experience from colleagues in the breakout and those presenting have inspired me, and I would relish the opportunity to build on that."

Sally King, Deputy Service Director, Gloucestershire Health and Care NHS Foundation Trust

Some key themes from the chat...

QMS in various healthcare settings:

Ian Beange - It's worth remembering that some Departments within Hospitals have required to operate within QMS for many years e.g., Radiotherapy, Sterile Supplies. One must be careful not to impose too greatly on these departments with mature systems when Boards decide to implement all-systems systems.

Dr Joy Furnival - absolutely there is so much to learn from labs and radiology and so on about QMS, brilliant to hear, be great to hear more and thoughts about how to scale that to organisation and system level

Karen McNeill - QMS is more established in acute settings but how do we use QMS in health and social care areas/ services where we are working with a range of community organisations (third sector, etc) who do not have the same understanding, experience and tend to be funded to deliver a specific frontline projects?

Bruce Gray - QMS brings the rationale and opportunity to bring Audit, PMO and CIP closer together

QMS – is it in addition to your operating model, or does it become it?:

Hesham Abdalla - WRT leadership commitment, the problem I have seen with implementing a QMS is trying to build this *alongside* everything else that is going on, which felt alternately overwhelming and redundant. One challenge is how to do this *instead* of the current systems whilst still being able to give NEDs/ regulators adequate assurance.

Dr Joy Furnival - Hesham, I have tried to reframe this question into - how do I use of the external requirements and assurance stuff and think how this can help me, rather than get in the way- and build/adapt what is already there rather than replace/duplicate etc.?

Jonathan O'Reilly - In a previous organisation I worked in, we re-structured based on a QMS approach and brought together different departs/team to truly offer services a QMS approach to their issues.

Edel Galvin - As a QO in a pathology laboratory, I find that it's so important that for team buy-in, it's demonstrating that a lot of what is required for the QMS are requirements and things that people are already doing....gaps become obvious and that's where the QMS can streamline and fill.

QMS – where to start?:

Emma Stinton - Frances have you started across the whole of the Trust or focused on specific areas first? Also, what would you say is the main support that the leadership team has given/behaviour changes they have made that have supported the roll out?

Jonathan O'Reilly - In many cases you need to go where the work is. This isn't always the place you would like to start or even need to start. This builds will and momentum.

Tom Horsted - There is never a good place to start, there is also never a bad place.

Barry Appleton - Start where you are, use what you have, do what you can. Arthur Ashe knew this years ago.

Some key themes from the chat...

Balancing and integrating Quality Improvement / Planning / Control:

Lisa Elliott - Totally agree with so many people's comments and experience re QI - It often seems that quality approaches are not kept in balance and are often in conflict with each other - developing a conversation around the whole QMS rather than driving one aspect too strongly can help - so many NHS organisations I work with have struggled to understand the shift needed from a compliance culture to a commitment culture - and can sometimes 'expect everyone to use of PDSA' for compliance reasons rather than because QI is actually needed

Melanie Andrews - being honest would suggest that the biggest gap is in quality control element- and the understanding of it?

Helen Smith - I work in an NHS trust which is putting a lot of resource into building Qi capability/capacity. One of the issues we encounter is the clinical leaders at all levels want to treat everything as QI projects (using model for improvement) when often it is planning/controls which require attention.

Rebecca Fox - it sometimes feels like a 'baby out with the bathwater' scenario in that QI (and let's be honest - simplified to PDSA as a methodology) has become an obsession to show they are 'doing QI projects' without it becoming a strategic culture. The idea that this is growing into QMS is encouraging

Elouise Johnstone – I'm going away to think about how we better integrate the functions of quality management to ensure they are actually a system

“Aim to solve problems at the lowest level possible, and the highest level necessary” – Jon Armstrong, Changeway

Data and Analysis:

Adam Sewell-Jones - QC needs to have internal real-time control. Do you think we have become too reliant on CQC/NHSEI checking rather than understanding what real quality is?

Dr Joy Furnival - Adam - yes, yes, yes!

Melanie Andrews - wholly agree Iain [Smith] - teams need to know how they are doing, but very often they don't!

Andrew Barraclough - Love to know anything that can be said about the role of analysis / information / business intelligence teams in this. What different set ups are there and how well do they meet the different elements of a QMS?

Need for real-time QC: data capture, analysis, escalation and containment/countermeasures.

Andrew Barraclough - Agree re Sam R / Making Data Count and esp session 6 now which explored using qi methods to help do something about special causes that are flagged so begins to join and integrate in that setting

Philip Pearson - PDSA cycles: you should be able to see where changes led to improvement; and you should be able to see where they didn't.

Some key themes from the chat...

Leadership Commitment to QMS

John Berry - 100% no buy-in, no success.

Sonal Mehta - Fully agree with what Andy [Heeps] says. We need senior leadership buy in to move this forward in primary care, but the headspace isn't there. Do NHSE/I have any plans to support this issue?

Alison Poole - Totally agree with Andy [Heeps] - trying to prevent 'Magpie leadership' where the latest shiny thing takes priority over the plan and strategy your QMS has identified.

Dominique Bird - rigour of leadership being really specific about mission, vision, values, and objectives. This is often skipped over, but it's fundamental to build that cultural change.

John Berry - how can we develop proactive senior /exec level engagement in improvement systems and ways of working?

Role of ISO Accreditation (from Industrial Perspective presentation)

Jo Pritchard - I implemented a QMS to obtain ISO 9001 accreditation system in a distribution company in 2001. Much smaller scale than in a hospital but it's nice when these things come round again!! It really is the backbone of a well-run organisation.

Thomas Rose - If you are interested in ISO 9001 have a look at ISO 15224

Ian Beange -People tend to get hung up on the word 'Quality' in QMS; drop the word and just think of it as a Management System. Then you include Processes (although that is now a basis of ISO9001:2015) & QI.

Reflections from breakout groups

Michael Canavan – Big need to find out how & share **how to implement QMS**

Needs senior leadership support, they've had other priorities recently
It may be a **good time** to get back to thinking about how **to influence senior management**.

Important to get **balance (QP/QI/QC)** right across the trilogy & **empower teams**

Need to **translate theory of QMS to what it means to people and teams**:

What is expected, how am I /are we doing, what needs to be improved (& how)?

How to get Chief Execs enthusiastic about QMS? (What were 'a-ha!' moments from those who've already adopted them?)

Sammy Rokoszynski – how do we link [strategic] challenges to each team member?

Sonal Mehta - **need to move from** day-to-day action & **reaction** to (proactive) **reflection and QI** in Primary Care.

Use Quality Improvement to implement guidance recently issued on resolving health inequalities?

How can a **QMS work across organisation boundaries (e.g. discharges)?**

How to engage senior leaders from different sovereign organisations to develop a coherent vision? How to **link patient outcomes and cost savings?**

Rebecca Fox – we have been doing **bottom-up systems thinking**, but have **not obtained board support** for resources for coaching etc.

Reflection: Do we need **new language** (and visuals?) needed around QMS **to explain and influence**. Could we reduce fear of failure by promoting experimentation & learning.

There is the **challenge of reversion to C&C** once pressure hits; senior leadership need to ensure headspace, time for learning inc. via coaching. How to coach on brave leadership (especially when savings may be required somewhere else in the system)? How to take middle management's "a-ha" moments (from seeing individual patients' outcomes) up to board level? [Especially when there are a lot of other things going on in primary care!]

Nathan Proudlove (UoMcr) – I am doing lots of work (esp. with clinical scientists) – **usually their first experience of QI**, so getting them to do some operational QI.

They could be future senior leaders, so valuable to expose them now to building a system (QMS) to embed & spread this, and esp. link QC / QI / QC cycle with QP oversight, leadership, enabling etc

Reflections from breakout groups

Alison Poole

Invigorating conversations, but even we got overwhelmed! When we get excited about a Quality Management System, we need to **be mindful of how we communicate with the people we are trying to empower and embed in the system.**

Significant variation in success of establishing and embedding QMS across healthcare.

Is there a **correlation between the level of financial rigour being asked of Organisations and their ability to a) engage executive team and b) fully integrate the 3 elements of a QMS?** (e.g. in financial difficulty, shift towards efficiency control (cost improvement) and away from quality improvement. Is there a paradigm that only financially stable organisations can have an Integrated QMS?).

Accountability is crucial to deliver sustained results.

Critical importance of leadership and strategy development & deployment. Involvement of Quality Improvement in the Strategy – not an add-on.

Data flows. Huge amount in circulation (given to us / taken from us...) – how to interpret (e.g. know what to measure (and how often!) to gain **actionable insights**) to make **relevant decisions.**

External factors: CQC, Covid etc. have thrown spanner in the works of ambitious plans.

Bruce Gray – uneven 3-legged stool. (Too much focus on QI, insufficient attention on QP/QC etc.) How to conduct an assessment / 'healthcheck' of our approach?

QMS – bring closer together Audit, CIP, PMO and OD (Organisational Development).
(OD's 'listening' exercises could help expose gaps to close)

Adele Coulthard

Great presentations, brilliant stuff. Refreshing and reenergising.

All people in our group doing 3 elements, but not all to same level. Some have done more in past than now..!

How to **focus on priorities** and ensure team members are **aligned** and know what they're doing?

Focus on self – changing **behaviours**. Show **respect**, choose words carefully (in emails as well as conversations, and especially on Gemba).

Coaching in merged / merging organisations. How to coach when people are unsure of their job security? OD and behaviours play key role.

How can regional improvement hubs add value through coaching? What is the role of regions in Quality Improvement?

How to sustain [culture, progress, results] with ever-changing leadership? Consequences of change to new CE / senior leaders who've not experienced a QMS are significant...

Reflections from breakout groups

Barry Appleton – Some refreshing new perspective on an established subject.

Role of Doctors in Quality Improvement

- Dr. Andy Heeps said that “**improvement is for more than just the doctors**”. Would be good to understand what he meant by this. (Implying that in healthcare settings, we can sometimes feel that only doctors can come up with solution to problems?)
- In my experience, **doctors** have little understanding of what Quality Improvement is, and can often be the **biggest blocks to improvement in the NHS**.
- However, the **QI teams often need their support** to enact change. (Doctors have the relationships and status to ‘open doors’)
- Teamwork and **Quality Improvement is not taught in medical school** (GMC very focused on clinical subjects), and for many, their first contact with QI / QMS is some time into their career. We should look at teaching Improvement in med school.

Error-proofing in healthcare

- Jon Armstrong advised that he struggled to find good examples.
- Closest we get in healthcare is the WHO Surgical Safety Checklist, though this is might not not physically prevent incidents.

Non-conformance reporting system

- Not often found. Would be helpful.
- **Need to track the right data** (with the appropriate frequency) to gain insights. Quality Control. “Make Data Count”
- Need for the right environment and behaviours. Must not be a ‘blame game’ or reporting will fail.

Mark Wilson – the subject matter is different (healthcare vs private sector) but the **methods and principles still apply**. We need to reflect on how we use our tools – they need to be appropriate and co-ordinated

Finances (cost savings) vs quality improvement. Are they really mutually exclusive, or is that just a paradigm?

Links posted in the chat...

QMS

<http://www.ihl.org/resources/Pages/IHIWhitePapers/whole-system-quality.aspx>

<http://www.ihl.org/resources/Pages/IHIWhitePapers/Sustaining-Improvement.aspx>

<https://www.bmj.com/content/368/bmj.m865>

<https://www.bmj.com/content/370/bmj.m2319.full>

Michael Canavan - You will find our most recent iteration of the Healthcare Improvement Scotland QMS Framework here:

https://www.healthcareimprovementscotland.org/previous_resources/policy_and_strategy/quality_management_system.aspx

Leadership

Matthew Mezey - This new book - featuring case studies with 4 Q members - may be of interest: 'Systems Convening – a crucial form of leadership for the 21st century' (co-authored by Etienne Wenger): <https://wenger-trayner.com/systems-convening/> (free download)

It's a vital form of leadership – not based on formal authority – that often goes under the radar. Surrey County Council just recruited 3 'Systems Conveners'...

Leaders and first followers (Dancing Guy – as referenced by Andy Heeps) <https://www.youtube.com/watch?v=fW8amMCVAJQ>

Kata

Joy Furnival's research on Toyota Kata (Improvement coaching here); [https://www.research.manchester.ac.uk/portal/en/publications/toyota-kata\(2e9efec3-bd6f-4f6f-8030-3fc5b3070559\).html](https://www.research.manchester.ac.uk/portal/en/publications/toyota-kata(2e9efec3-bd6f-4f6f-8030-3fc5b3070559).html)

Iain Smith's Lean Online programme (free introduction to the basics of improvement kata alongside fundamental Lean improvement concepts) <https://www.england.nhs.uk/sustainableimprovement/lean-online/>

Lean Online and improvement kata supporting Covid-19 vaccination here <https://bmjopenquality.bmj.com/content/10/3/e001525>
<http://www-personal.umich.edu/~mrother/Homepage.html>

Quality as a business strategy

by API builds on the Deming work, and offers a structure to managing quality <https://www.davidmwilliamsphd.com/2019/09/05/quality-as-a-strategy/>

Process Capability – CpK (recommendation from Dr Joy Furnival)

<https://asq.org/quality-resources/process-capability#:~:text=Process%20capability%20is%20defined%20as,a%20process%20to%20meet%20specifications>

Thank you



Q is led by the Health Foundation
and supported by partners across
the UK and Ireland

8 Salisbury Square, London EC4Y 8AP

t +44 (0)20 7257 8000

E q@health.org.uk

🐦 [@theQcommunity](https://twitter.com/theQcommunity)

q.health.org.uk