In Collaboration with

Middle East Forum on Quality & Safety in Healthcare 2023

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Learning from the use of QI during the pandemic

Dr Amar Shah

Healthcare Resilience in Extraordinary Times

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Hamad Healthcare Quality Institute

Conflict of Interest

The speaker in this session has no conflict of interest or disclosure in relation to this presentation.

Learning Objectives

At the end of this session, participants will be able to:

1. Identify the key aspects of quality improvement that were utilised in healthcare systems across the globe
2. Appreciate the factors that led to greater adoption of quality improvement in tackling the challenges of the pandemic
3. Share the key lessons from the pandemic about how we need to improve the way we improve in healthcare

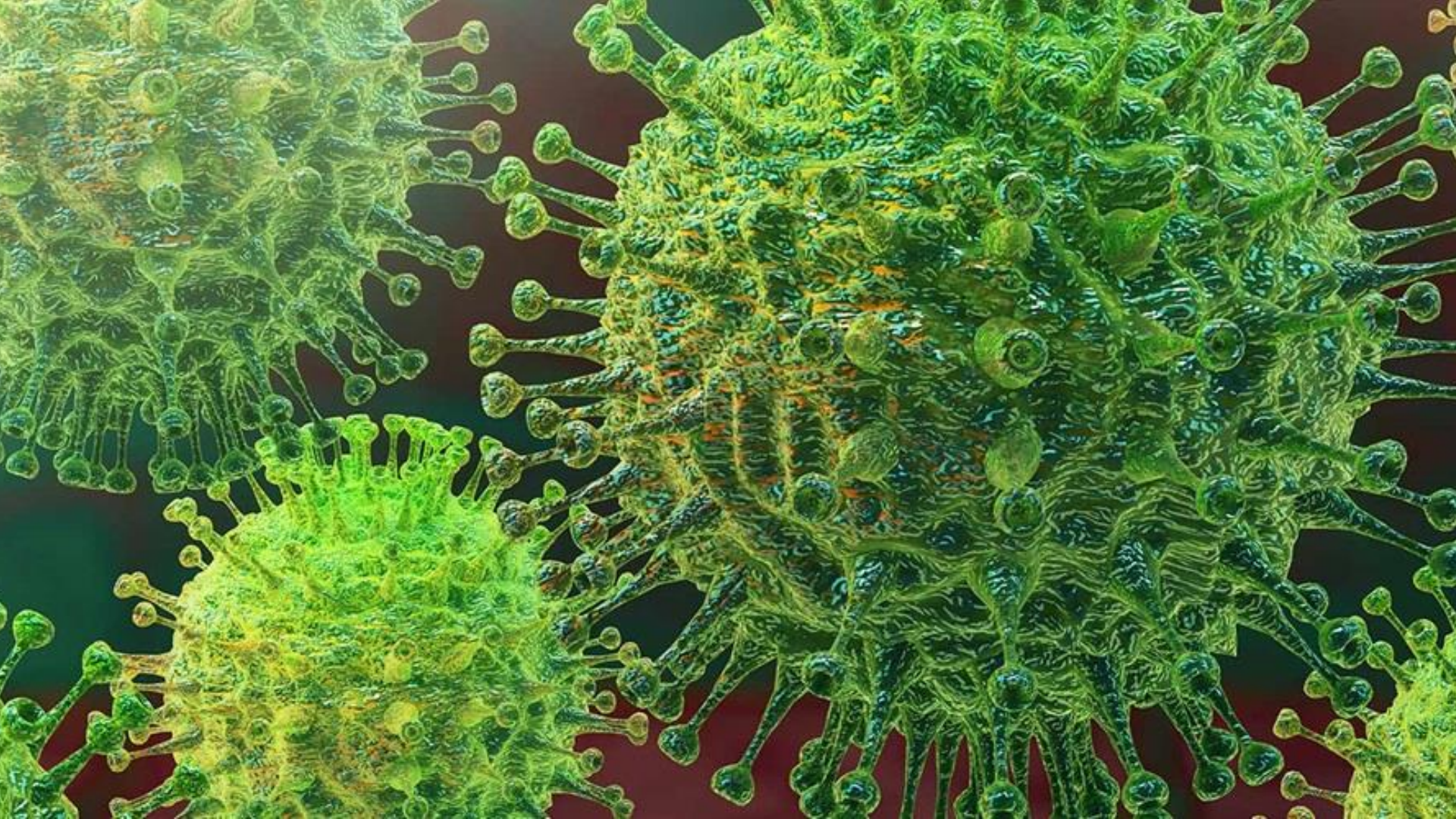
What do we know about how to embed a culture of quality improvement?

What have we learnt from the way people have applied quality improvement during the pandemic?

What does this mean for the future of quality improvement?

What does it take to embed quality improvement?

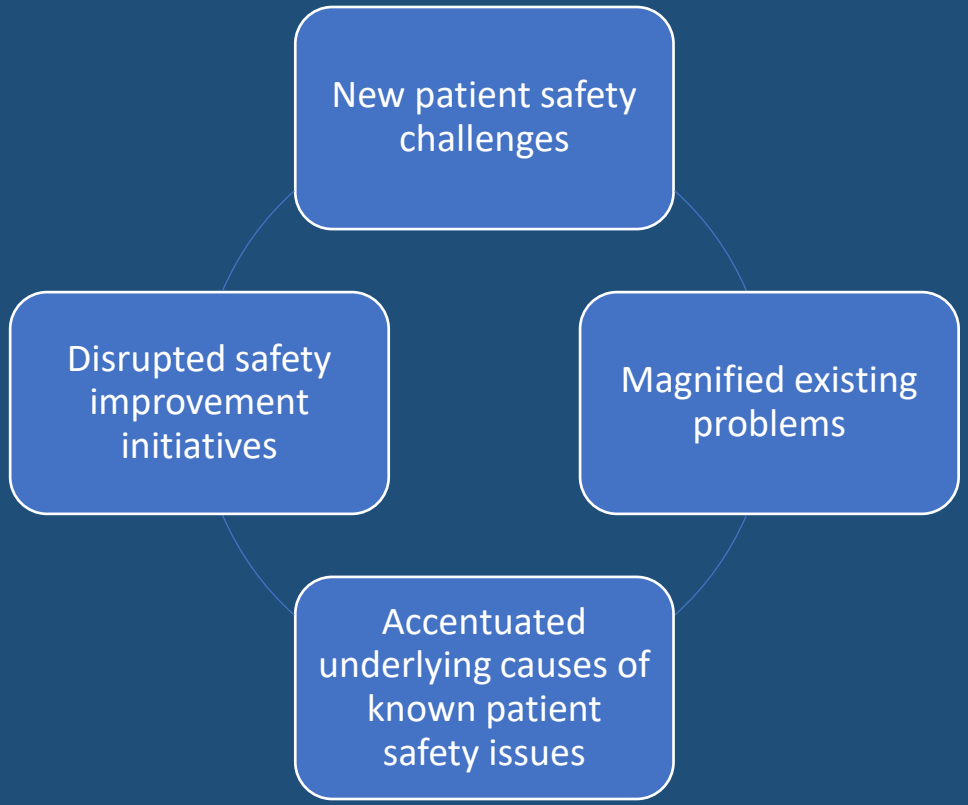
- What do we mean by QI?
- Service user / patient involvement
- Close improvement support
- Active sponsorship by senior leaders
- Improving as a whole team together
- Focusing on what really matters



Covid-19 and staff harm

Patient Safety Learning response to the Health and Social Care Select Committee Inquiry: Delivering Core NHS and Care Services during the Pandemic and Beyond, May 2020

Victoria Williamson, Dominic Murphy, Neil Greenberg, COVID-19 and experiences of moral injury in front-line key workers, *Occupational Medicine*, Volume 70, Issue 5, July 2020, Pages 317–319



Interruption of routine care

Redesign of care settings and care delivery

Increase in diagnostic errors

Related to staff shortages, workarounds, stress & burnout, error-prone environments, virtual assessments

Increase in diagnostic errors

Related to staff shortages, workarounds, stress & burnout, error-prone environments, virtual assessments

Reduced safety reporting – less transparency of safety issues

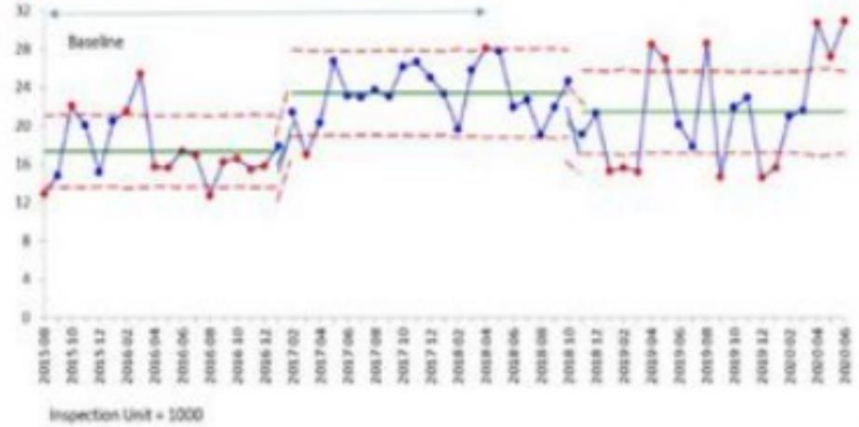
14% reduction in medicine safety incident reporting (National Pharmacy Association)

Deterioration in known safety issues

eg hospital acquired infections in the US (CLABSI, CAUTI, MRSA)
eg increase in restrictive practice in mental health settings
eg increase in community-acquired pressure ulcers

McMullen KM, Smith BA, Rebman T. Impact of SARS-CoV-2 on hospital-acquired infection rates in the United States: Predictions and early results. Am J Infect Control. 2020 Jul 2 doi:10.1016/j.ajic.2020.06.209

Total Trust Restraints per 1000 Occupied Bed Days



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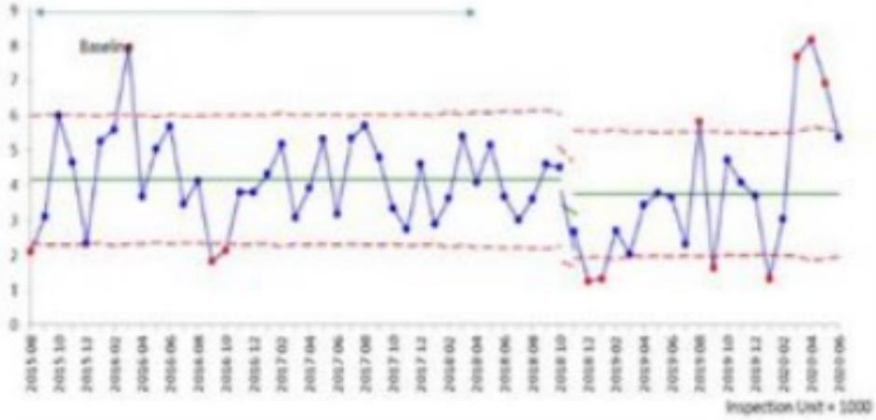
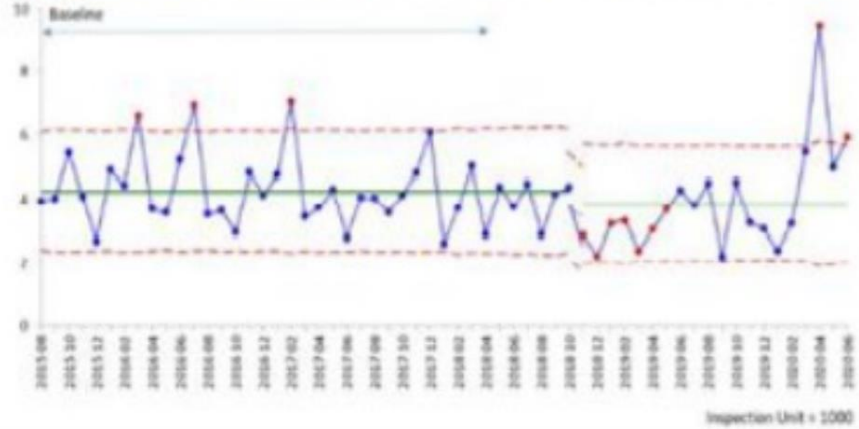
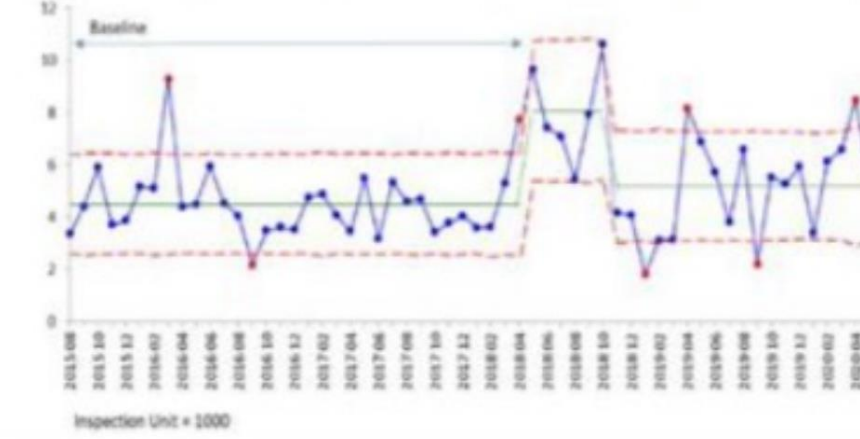


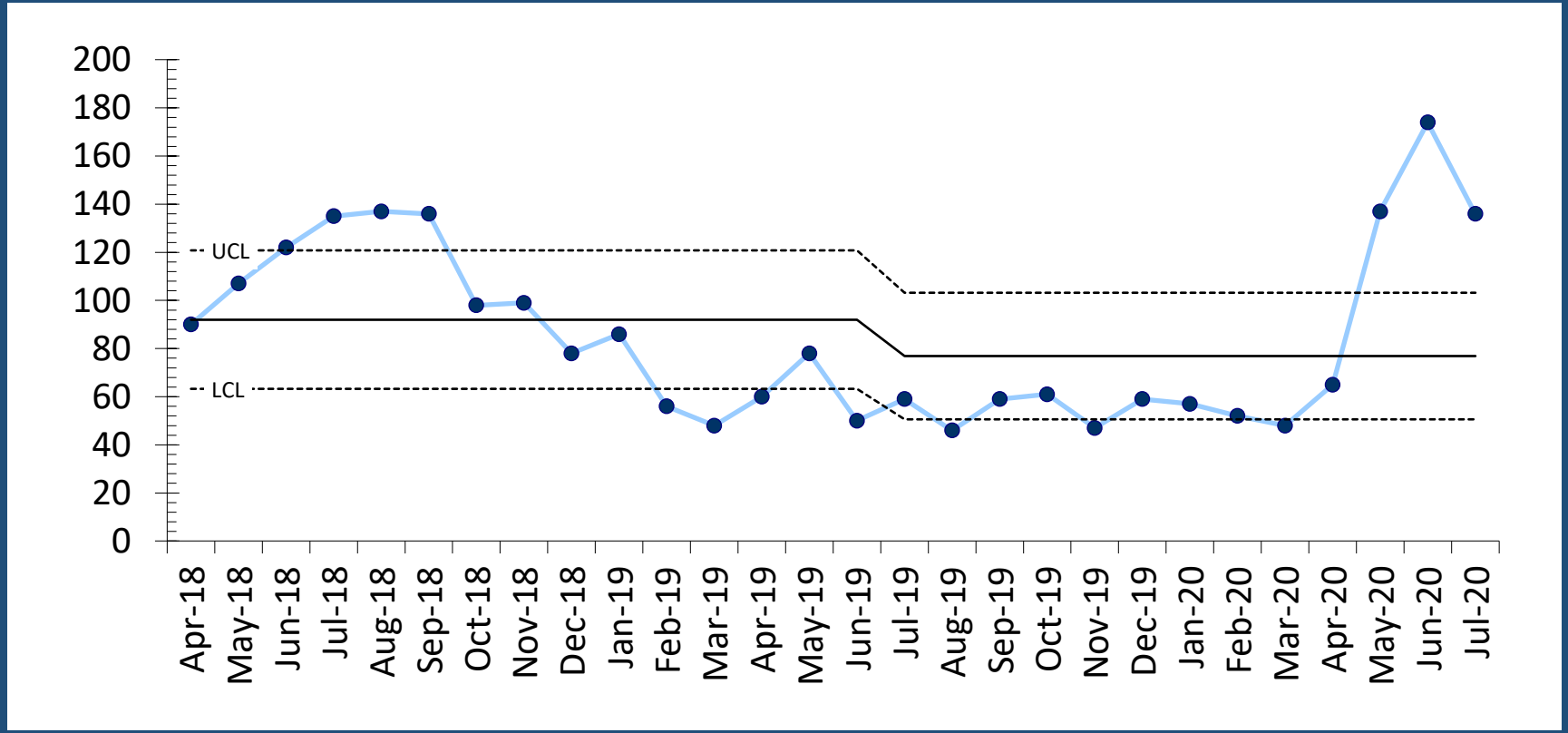
Total Trust Seclusions per 1000 Occupied Bed Days



Total Trust Rapid Tranquillisations per 1000 Occupied Bed Days



Numbers of pressure ulcers each month at ELFT



Increase in diagnostic errors

Related to staff shortages, workarounds, stress & burnout, error-prone environments, virtual assessments

Reduced safety reporting – less transparency of safety issues

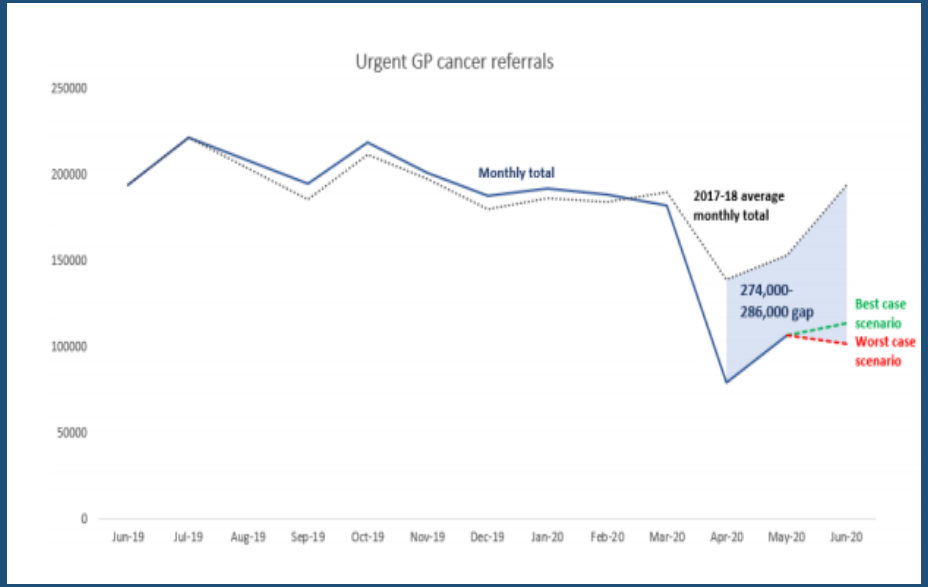
14% reduction in medicine safety incident reporting (National Pharmacy Association)

Deterioration in known safety issues

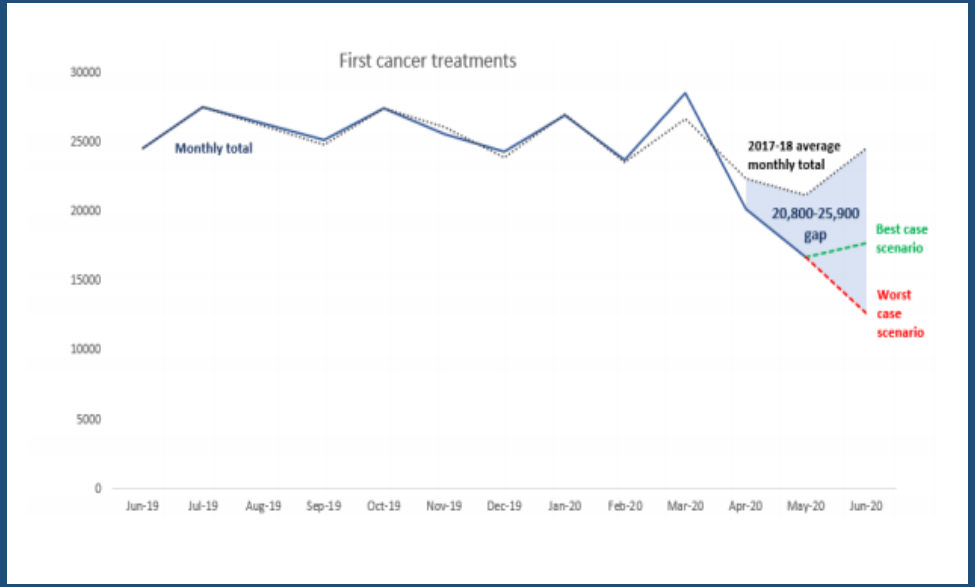
eg hospital acquired infections in the US (CLABSI, CAUTI, MRSA); restrictive practice, community acquired pressure ulcers

Harm caused by service changes

274,000 – 286,000 fewer urgent cancer referrals in England between April - June



20,800 – 25,900 fewer patients starting first cancer treatment between April - June



https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/

Positive effects on patient safety

- Adoption of safety culture
- Safety practices for healthcare workforce
- Use of health IT to improve safety
- Environmental cleaning

How can improvement expertise help?

Gathering evidence to inform protocols

Simulations and training

Engage with citizens, patients and families to co-produce solutions

Flash workshops on teamwork

Boost and expand the learning system

Cai H, Tu B, Ma J, et al. Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of Coronavirus Disease 2019 (COVID-19) in Hubei, China. Med Sci Monit. 2020;26. doi:10.12659/msm.924171.

International Journal for Quality in Health Care, 2020, 1–3 doi: 10.1093/intqhc/mzaa050

What can Boards do to improve patient safety during covid-19?

Identify and monitor key safety metrics

Support learning from incidents, complaints and feedback

Engage and involve patients and families

Clear leadership and governance processes for patient safety

Actively encourage staff and service users to speak up

Responding effectively to low-chance, high-impact events?

Plans often fail

Communications falter

Command-and-control systems do not work as expected

Requires flexibility, on-the-spot decision-making

Informal coordination with looser control

Creativity & innovation

Lloyd-Smith M. The COVID-19 pandemic: resilient organisational response to a low-chance, high-impact event. *BMJ Leader* Published Online First: 18 May 2020. doi: 10.1136/leader-2020-000245

Analysis » Quality Improvement

Quality improvement at times of crisis

BMJ 2021 ; 373 doi: https://doi.org/10.1136/bmj.n928 (Published 11 May 2021)
Cite this as: *BMJ* 2021;373:n928

Amar Shah, chief quality officer[1 3], *Penny Pereira, Q initiative director*[4], *Paula Tuma, quality improvement adviser*[5]

Author affiliations

Making rapid change during covid-19 has lessons for how to improve healthcare, argue **Amar Shah and colleagues**

Health systems across the globe have faced unprecedented strain and uncertainty during the coronavirus pandemic. Healthcare providers have had to respond rapidly, making major changes to all aspects of healthcare from moving to remote delivery of primary care services to creating covid "hot" and "cold" zones and developing innovations which are likely to have both short and long term consequences for the health of the population.

Quality improvement has been increasingly used globally over the past decade to change healthcare. Evidence of success is mixed.[1] Have such approaches added any value to healthcare service delivery during these unparalleled rapid changes? Are scientifically based approaches to complex system change, such as quality improvement, helping healthcare providers during a crisis?

https://www.bmj.com/content/373/bmj.n928

Did the role of improvement approaches increase or decrease for you during the response to COVID-19?

A. Increased

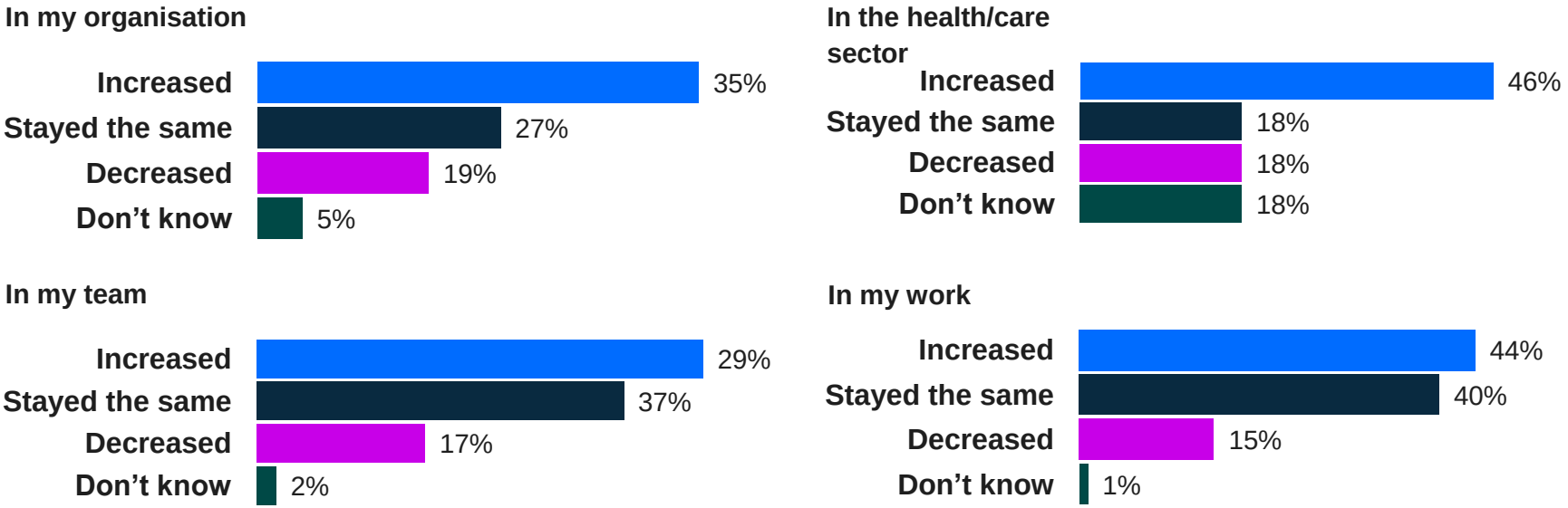
B. Stayed the same

C. Decreased

D. Don’t know

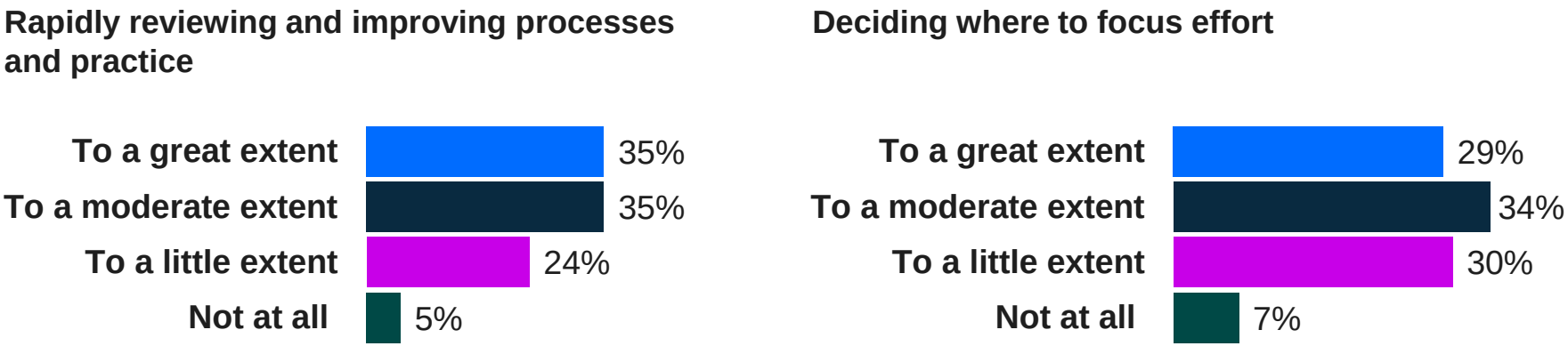
What 200+ improvers in the UK reported (Aug / Sept 2020)

Figure 1: Did the role of improvement tools, methods, approaches and mindsets increase or decrease during the response to COVID-19?

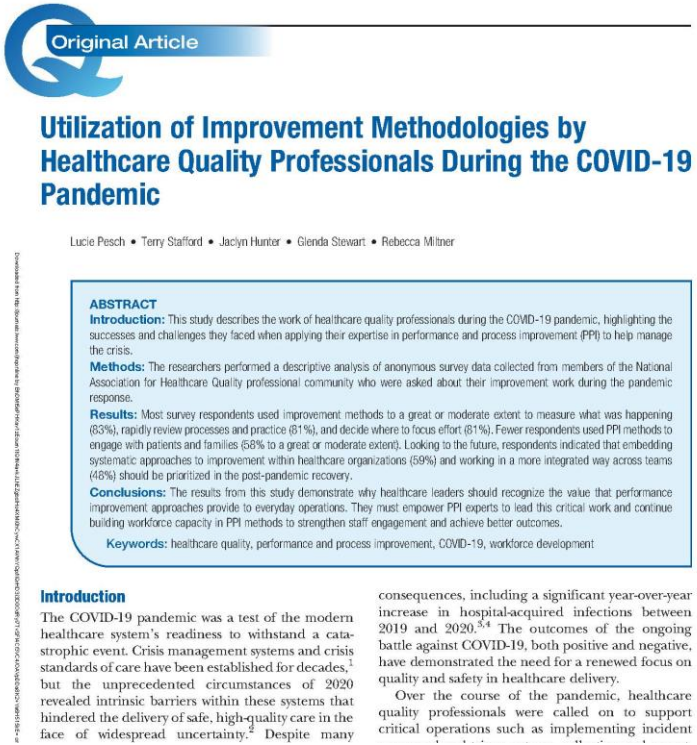


For what purposes was improvement used?

Figure 2: The extent to which improvement tools, methods, approaches and mindsets were used for different purposes



Some similar patterns from a group in the US…



Original Article

Utilization of Improvement Methodologies by Healthcare Quality Professionals During the COVID-19 Pandemic

Lucie Pesch • Terry Stafford • Jaclyn Hunter • Glenda Stewart • Rebecca Miltner

ABSTRACT

Introduction: This study describes the work of healthcare quality professionals during the COVID-19 pandemic, highlighting the successes and challenges they faced when applying their expertise in performance and process improvement (PPI) to help manage the crisis.

Methods: The researchers performed a descriptive analysis of anonymous survey data collected from members of the National Association for Healthcare Quality professional community who were asked about their improvement work during the pandemic response.

Results: Most survey respondents used improvement methods to a great or moderate extent to measure what was happening (83%), rapidly review processes and practice (81%), and decide where to focus effort (81%). Fewer respondents used PPI methods to engage with patients and families (58% to a great or moderate extent). Looking to the future, respondents indicated that embedding systematic approaches to improvement within healthcare organizations (59%) and working in a more integrated way across teams (48%) should be prioritized in the post-pandemic recovery.

Conclusions: The results from this study demonstrate why healthcare leaders should recognize the value that performance improvement approaches provide to everyday operations. They must empower PPI experts to lead this critical work and continue building workforce capacity in PPI methods to strengthen staff engagement and achieve better outcomes.

Keywords: healthcare quality, performance and process improvement, COVID-19, workforce development

Introduction

The COVID-19 pandemic was a test of the modern healthcare system's readiness to withstand a catastrophic event. Crisis management systems and crisis standards of care have been established for decades,[1] but the unprecedented circumstances of 2020 revealed intrinsic barriers within these systems that hindered the delivery of safe, high-quality care in the face of widespread uncertainty.[2] Despite many consequences, including a significant year-over-year increase in hospital-acquired infections between 2019 and 2020.[3,4] The outcomes of the ongoing battle against COVID-19, both positive and negative, have demonstrated the need for a renewed focus on quality and safety in healthcare delivery.

Over the course of the pandemic, healthcare quality professionals were called on to support critical operations such as implementing incident

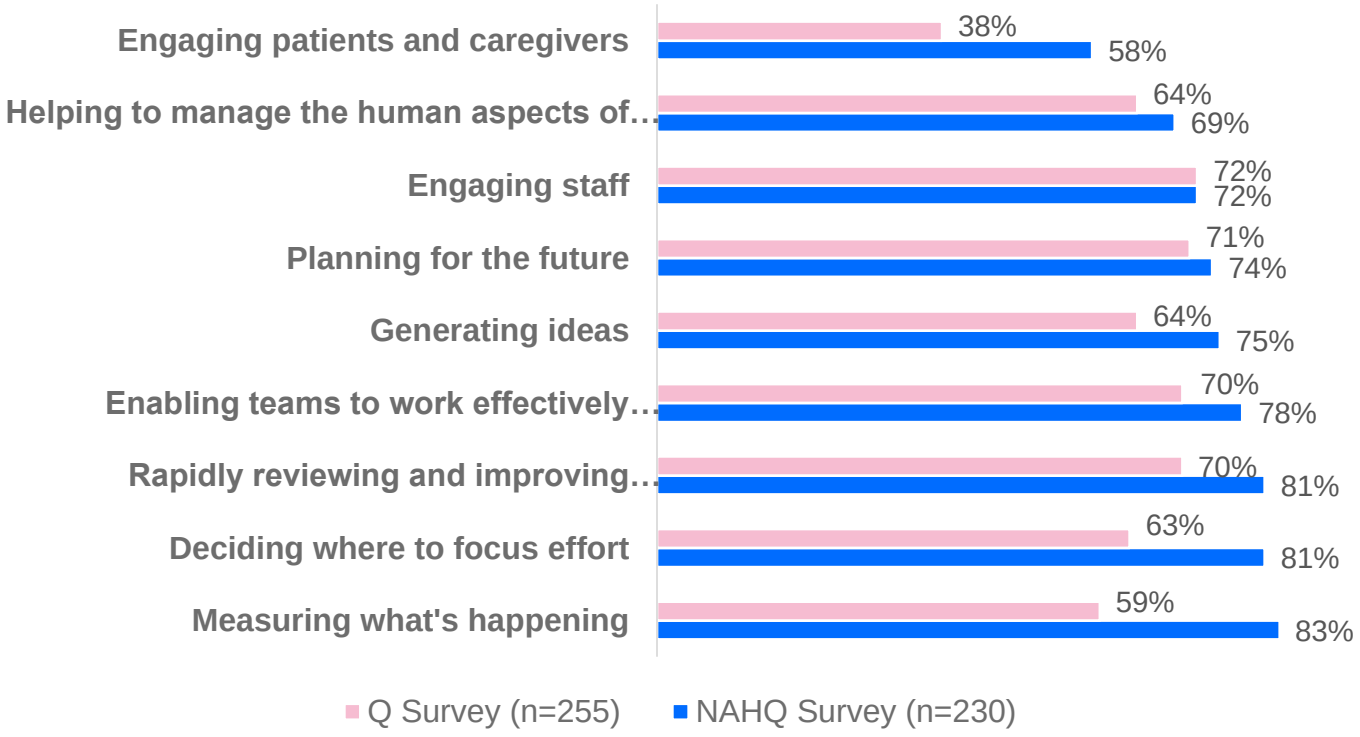
Survey replicated in the US later in the pandemic

Increasing importance of improvement shared

Many shared lessons

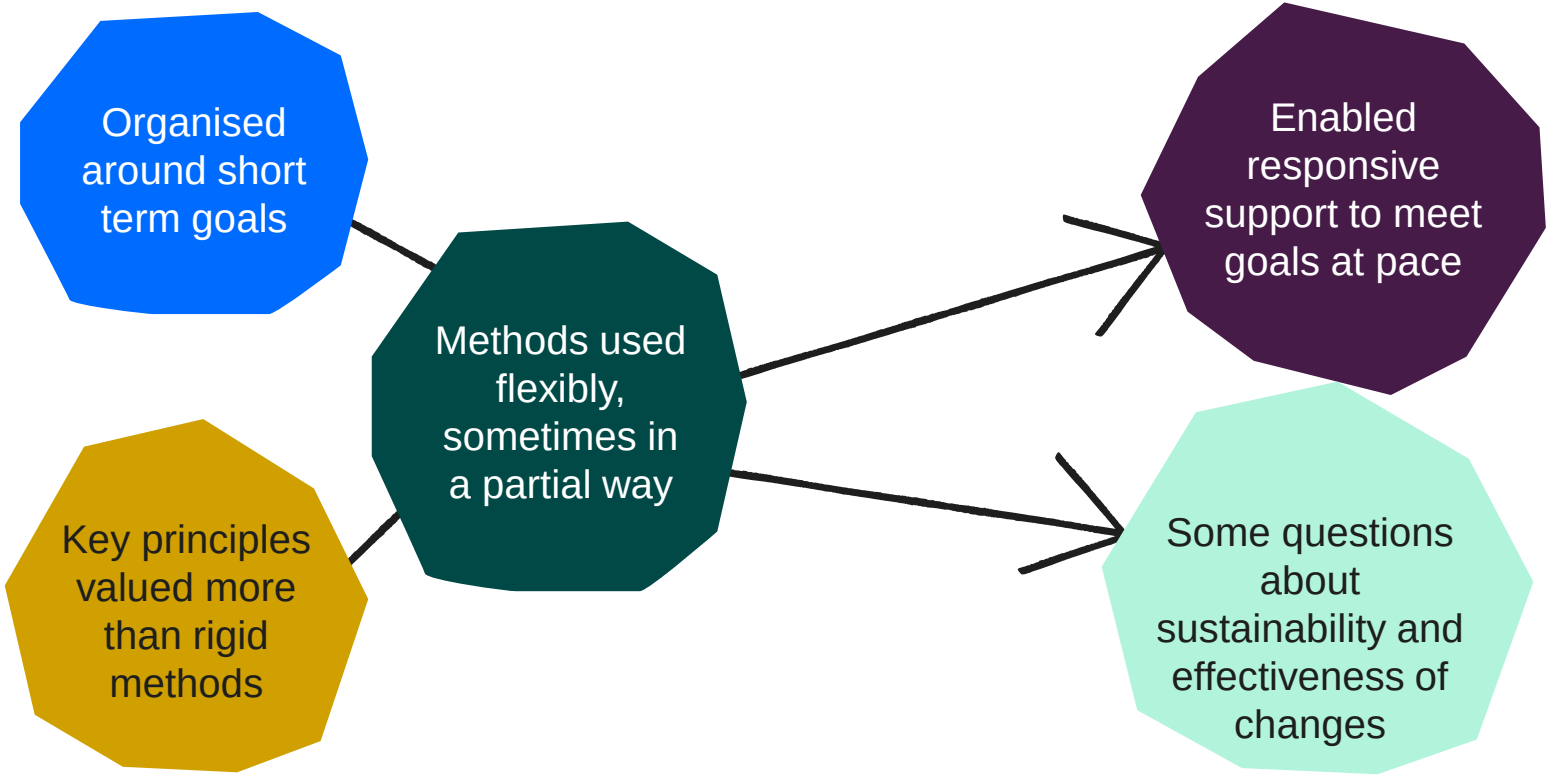
https://journals.lww.com/jhqonline/Fulltext/2022/06000/Utilization_of_Improvement_Methodologies_by.1.aspx

…but also differences



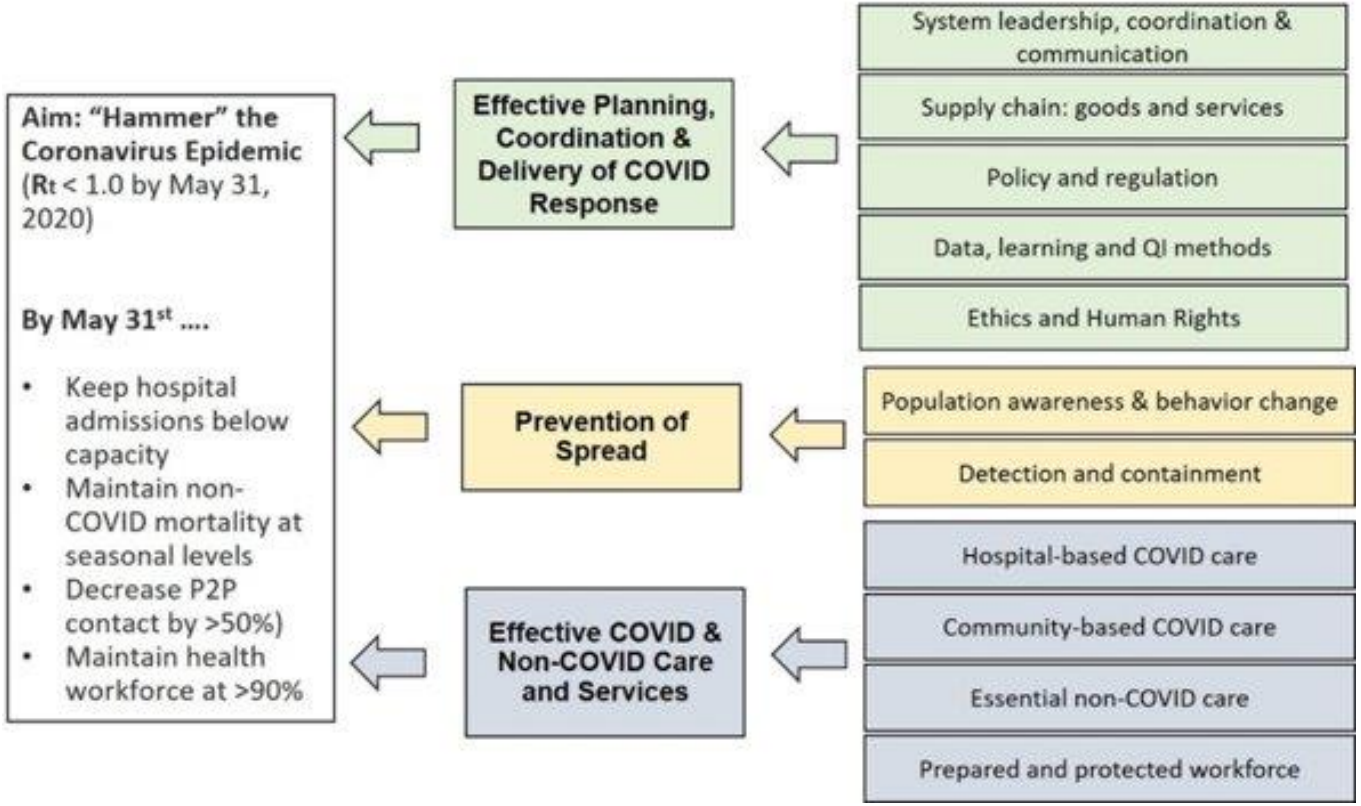
How did improvement help where you are?

Improvement took a distinct form in response to crisis



Examples of how improvement has been used

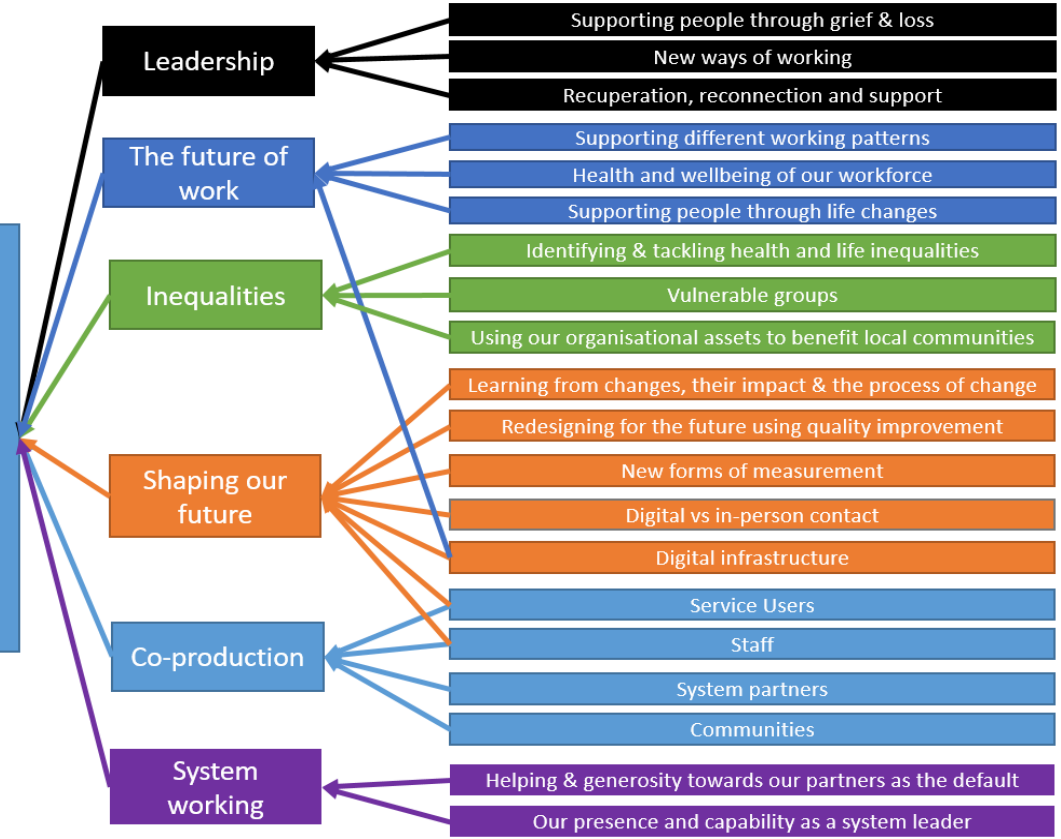
Creating a common theory about how to tackle complex problems



Creating a common theory about how to tackle complex problems

To learn and shape our future so that we can improve quality of life for the communities that we serve.

To improve the wellbeing of service users and staff now and for the future.



NHS
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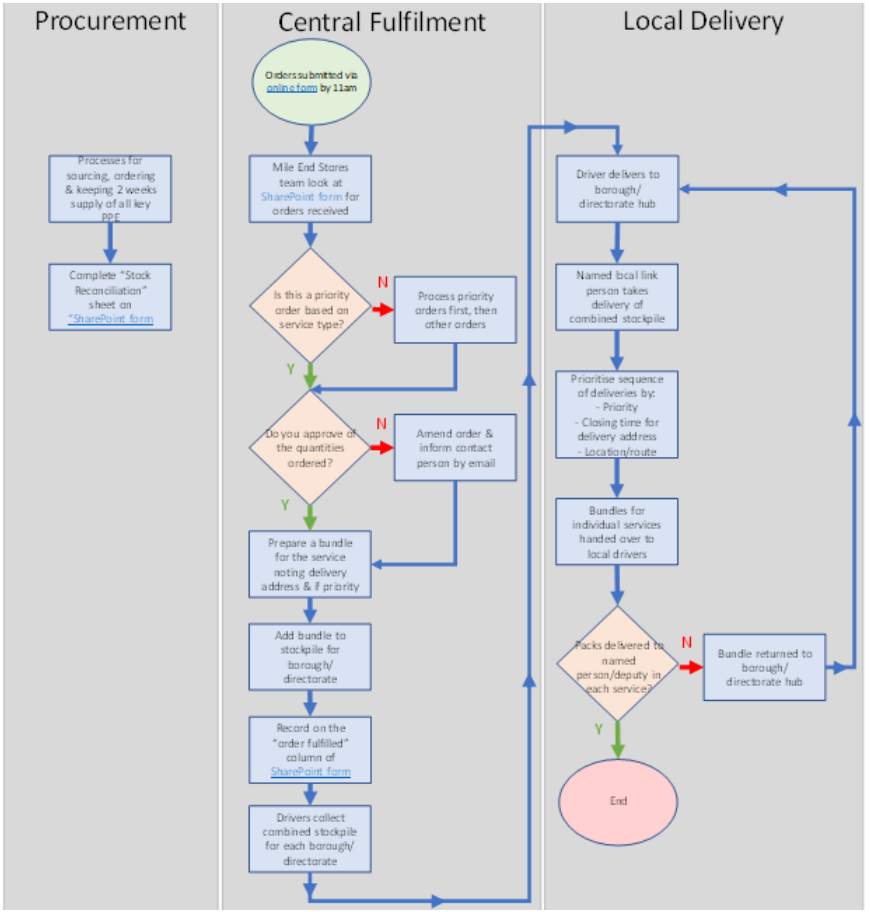
Understanding and improving processes



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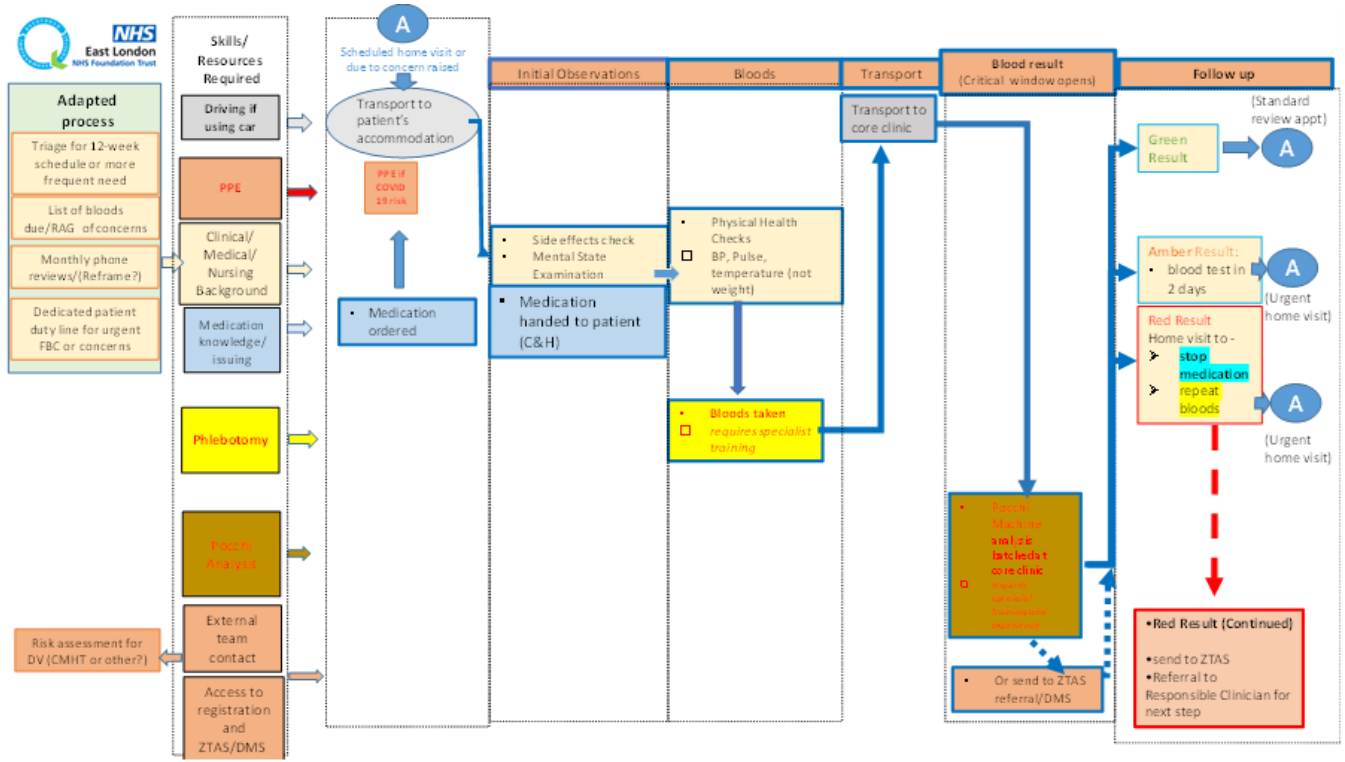
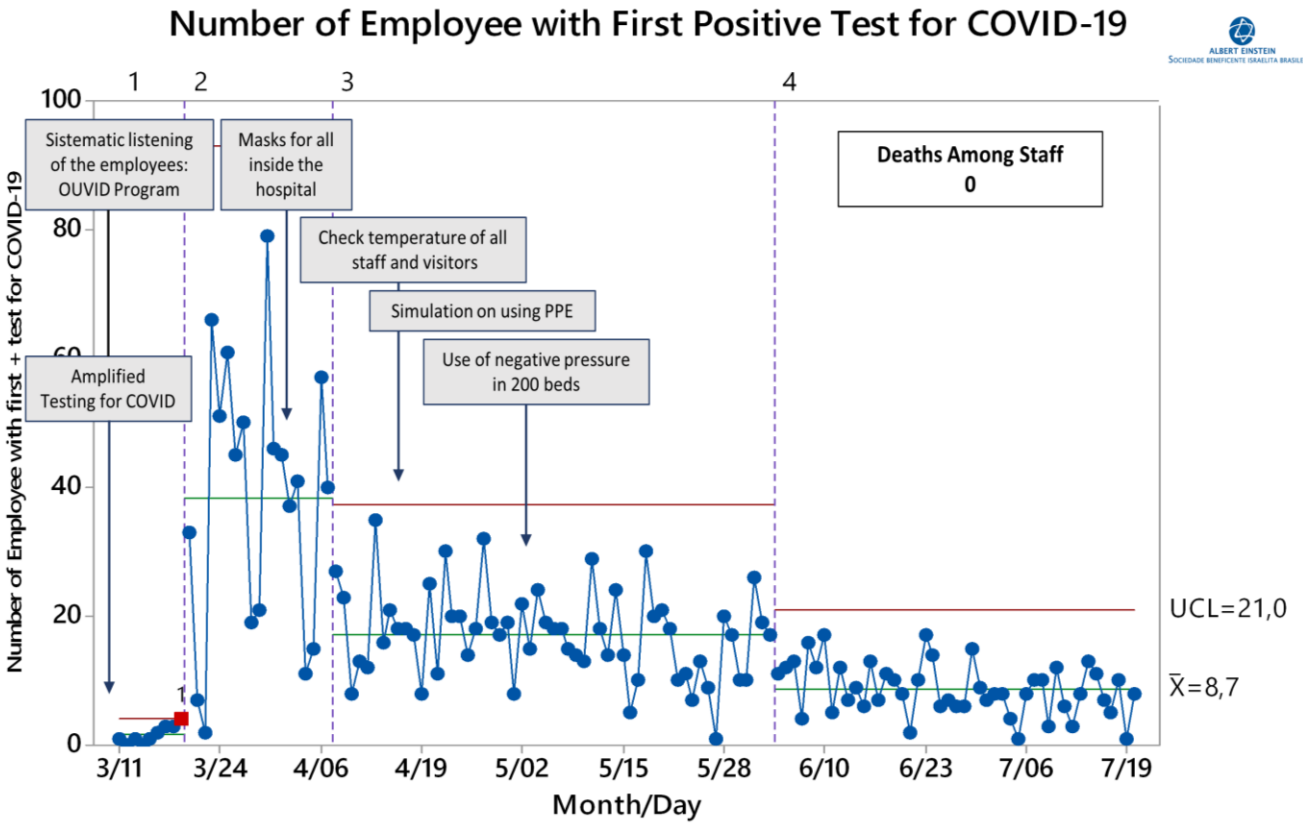


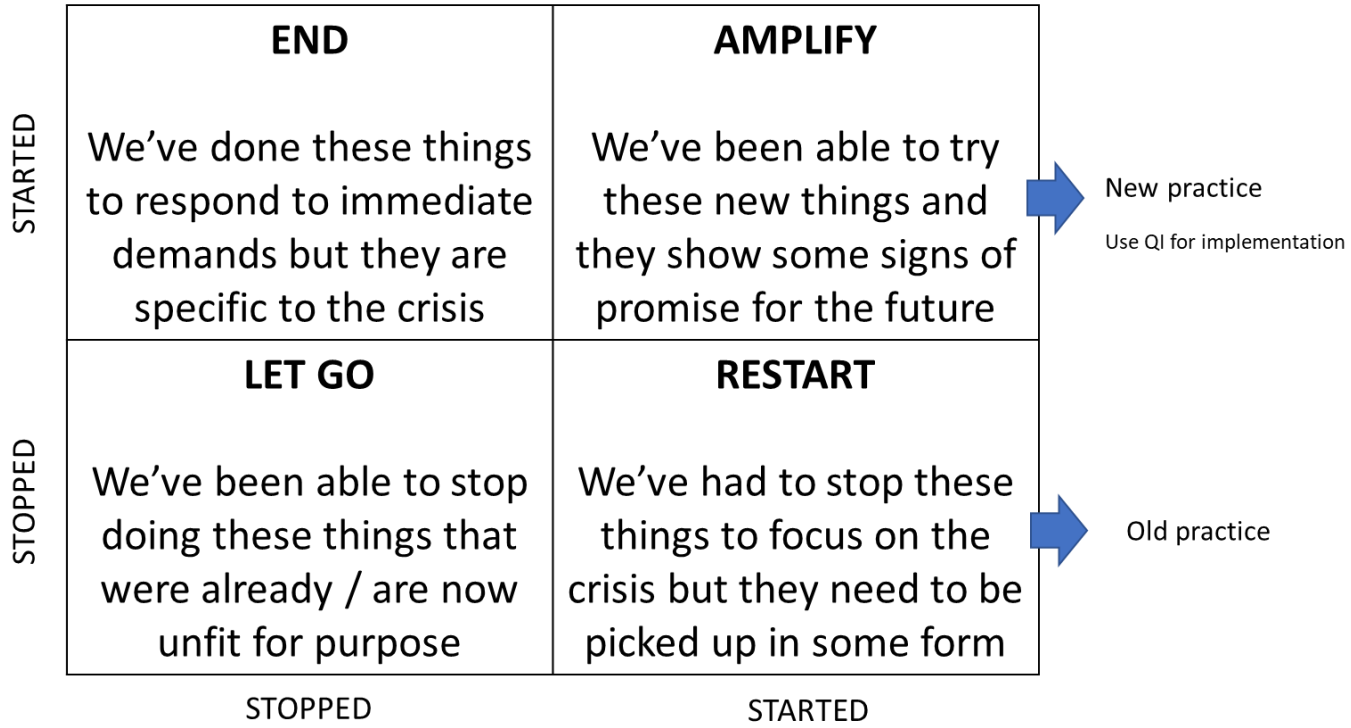
Measurement to inform decision making

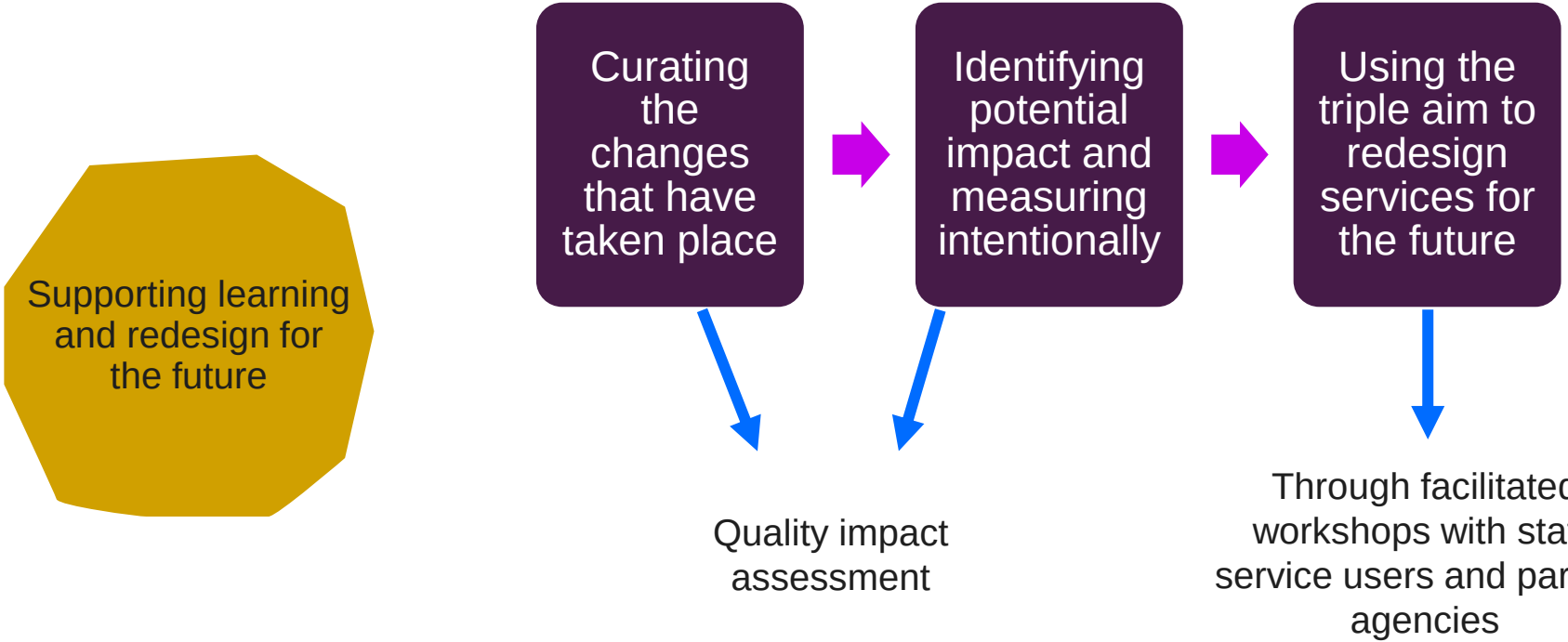


Measurement to inform decision making

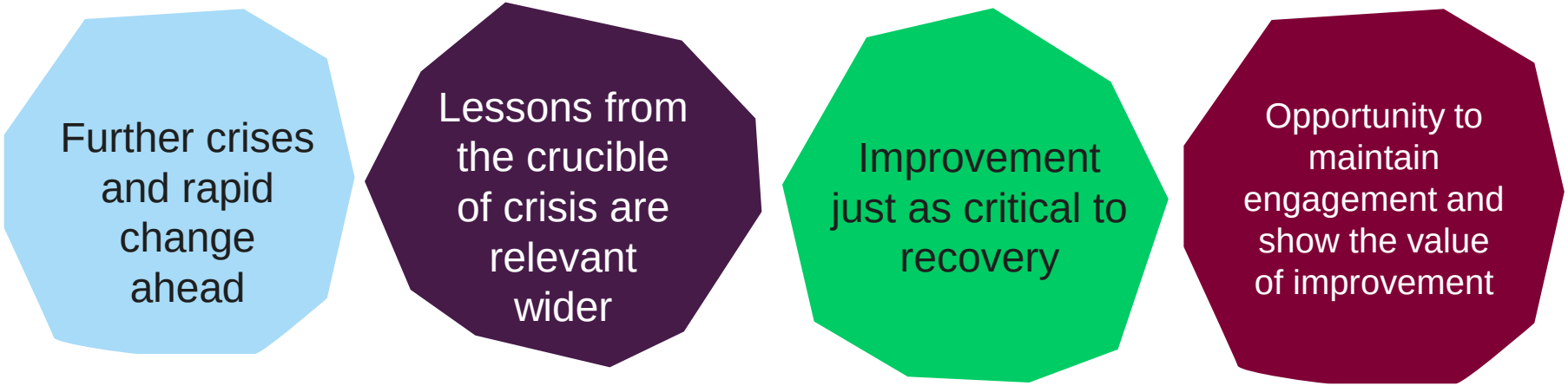
PDSA cycles to test and scale rapidly

Supporting learning and redesign for the future



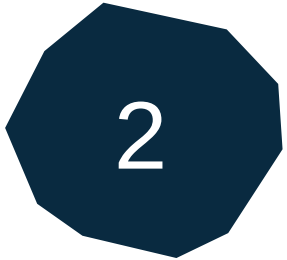

Supporting learning and redesign for the future
Curating the changes that have taken place
Identifying potential impact and measuring intentionally
Using the triple aim to redesign services for the future
Quality impact assessment
Through facilitated workshops with staff, service users and partner agencies

Why does this matter now?



What does the future of quality improvement hold?

Continue to build our improvement muscle



Continue to support our leaders to lead improvement

Put improvement in everyone’s hands

Use the rigour of QI for complex problem solving

Pay attention to equity in the way we design and lead improvement

Thank you