Quality Coach

Delegate	Cohort	Mentor	Buddy

Quality Coach Development Programme

Handbook

Quality Coach

For additional information contact
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The *Handbook* is part of the wider
Quality Coach Development Programme © resource bundle.
For more information visit:
https://q.health.org.uk/resource/quality-coach-development-programme/

Editors

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Introduction

Foreword from the Editors

Quality and safety are the most important priority for all organisations across the health and care sector. All providers aim to deliver high-quality, timely, effective, safe and person-centred care. Where gaps in care delivery exist, they aim to improve the service provided. In support of this ambition, many providers have adopted a quality improvement approach as one strategy to improve healthcare outcomes, service user experience, staff morale and to build efficiency across the system.

Quality improvement (QI) can be defined as 'giving the people closest to issues affecting care quality the time, permission, skills and resources they need to solve them. It involves a systematic and coordinated approach to solving a problem using specific methods and tools with the aim of bringing about a measurable improvement' (Health Foundation, 2021).[1]

For many health and care providers the broad improvement ambition is that everyone who is involved in care delivery, i.e. staff, service users and the public, are aiming to improve services every day. There is a recognition that improvement is everyone's job. By empowering all staff at all levels of an organisation, we can address complex and systemic issues. Staff closest to the issues we face can use their invaluable insights, experience, and expertise to improve services.

The ambition of everyone improving all the time is commendable. But the reality of all healthcare professionals embodying continuous improvement principles brings about clear challenges. Primarily, how does everyone receive the support they need to improve services?

In many healthcare organisations, including most National Health Service (NHS) providers, staff are currently only able to seek QI support through a centralised improvement team. Whilst this is reasonable for organisations with little QI activity, it may not be a sustainable model in the longer term. In recent years there has been a significant increase in the demand for QI support and training. Organisations may not be able to justify employing a growing number of improvement specialists in a centralised team in order to support bottom-up improvement work; instead new approaches need to be sought.

1 The Health Foundation (2021). Quality improvement made simple. What everyone should know about health care quality improvement. www.health.org.uk/sites/default/files/QualityImprovementMadeSimple.pdf

One approach that has been shown to work in NHS organisations is to train a network of frontline staff in the more advanced concepts of improvement, as well as coaching techniques – i.e. training them to become Quality Coaches. The approach has been advocated for by the NHS and its advisers for several years (NHS Improvement, 2017;[2] Lloyd, R. 2018).[3] This programme supports organisations to adopt this approach, by training staff in the knowledge and skills needed to be a Quality Coach.

Quality Coaches play a pivotal role in supporting improvement within health organisations and across health systems. In their role, they should have protected time to support services and colleagues with the planning, implementation, and evaluation of QI work. Through the Quality Coach role, improvement support is distributed throughout the system, as opposed to being in a centralised function. More advanced and specialist support and general training is then the main provision of the central QI team/function.

The aim of the Quality Coach Development Programme is to build improvement capability and capacity by training staff in the essential skills and knowledge needed to successfully coach teams and individuals through QI work. The programme has been designed and developed by a dedicated group of national subject matter experts from across the QI community in the UK, between Autumn 2019 and April 2023. The programme has been partially funded and supported by the Q Exchange programme, hosted by the Q Community[4] and funded by NHS England and the Health Foundation. Further funding and oversight in the development of this programme has been provided by Central London Community Healthcare NHS Trust.

With sufficient local support for QI through the development of Quality Coaches, we can continue to ensure that staff are empowered and supported to implement their ideas for improvement across the United Kingdom (UK) and Ireland.

We hope you enjoy this programme and put your learning into practice to work towards our shared goal of an improved healthcare system.

Your Quality Coach journey may start with this programme, but it won't end here. Being a coach means continuously learning and developing your skills and knowledge around improvement. We encourage you to explore development opportunities outside of this programme – some of which can be found towards the end of this handbook.

Good luck!

Sidney Beech
Editor
On behalf of the Quality Coach Design Group

Hannah Pearson
Editor

The full list of contributors to the co-design and development of this programme can be found on page 256 of this handbook.

2 NHS Improvement (2017). Building capacity and capability for improvement: embedding quality improvement skills in NHS providers. https://qi.elft.nhs.uk/resource/building-capacity-and-capability-for-improvement/

3 Lloyd, R. (2018). Building improvement capacity and capability. *Healthcare Executive.*

4 https://q.health.org.uk/about/

Your learning

About the Handbook

Welcome to your Quality Coach Development Programme handbook.

This is a companion document that will be an essential component of your studies throughout your time on the programme. You may also wish to use this in the future as part of your continuous professional development and to reinforce good practice.

You should familiarise yourself with the different sections of the handbook early in your studies. You will see that some of the sections require you to complete activities, answer questions and reflect on your experience and development.

You will use your handbook to support conversations you have with your mentor as part of this programme.

Instructions for using the handbook

The handbook has been divided into seven colour-coded chapters that will guide you through your development as a Quality Coach:

You should read Chapters 1 and 2 before the start of the taught sessions of the programme.

Your Responsibilities And Our Expectations

Your learning

The best way to learn throughout this course is by 'doing'. In this programme, we will give you many opportunities to put learning into practice both in and out of the classroom. You will be expected to attend and participate in all of the sessions. As adult learners you will be expected to take responsibility for your own learning, both academic and work-related. Ultimately, it is you who will be checking your progress towards completing all aspects of the programme.

Active blended learning will be used to deliver the taught content of the programme. We will be using activities, discussions and debates to facilitate learning in a meaningful way. 'Blended' means we will be using different platforms and forums to provide learning opportunities. Such as:

- classroom activities
- coaching circles with your peers
- informal reflection sessions with your mentor
- self-directed learning
- application of improvement tools and coaching techniques with an improvement team.

Reflection

Throughout the programme, you are expected to reflect on your learning, successes, challenges and progress. You are encouraged to keep a reflective log where you can document both your reflection on learning and your reflection in practice, during and beyond the programme. The self-reflection chapter starting on page 55 outlines strategies and tools to support you with this.

Coaching improvement work

You should work with the people running the Quality Coach Development Programme to agree which improvement work you will coach. Depending on your organisation, there may be a preference for how and when this is undertaken. Ideally this work will not have started yet and you have no established professional relationships with those involved that may cause conflict of interest. (For example, you are a line manager or direct report of a team member.) Coaching an improvement effort outside of your department or area of expertise is a bonus – this means it's harder for you to give advice, take over the work or 'rescue' the improvement team!

Teaching

There will be various sessions throughout the course in which you will be required to practise teaching in order to develop your teaching skills. This includes an All Teach, All Learn where you will be expected to research a topic and teach it back to your colleagues. There will also be teachback sessions where you will carry out on the spot Just-in-Time training. These activities will help you to develop strong teaching skills which will be needed when coaching teams through improvement.

The Quality Coach Development Programme

The Structure of the Quality Coach Development Programme

The content of this programme has been carefully designed by a group of national QI experts. The structure has been created to reflect the different tasks that are typically expected of a Quality Coach.

The modules reflect what is required of you in supporting and coaching the development and delivery of improvement work. These are summarised below.

Session	What the coach will learn and do	How this relates to coaching improvement work*
Pre-programme		
Self-directed learning (online course)	Understanding self, reflective practice and a refresher of quality improvement.	At the start of the programme the focus is on theory. You will not be required to coach a team through improvement work at this point.
Welcome to the programme	How the programme will work and setting expectations from the start.	As above.
Coaching and the Foundations of QI		
1 **Coaching improvement**	• How QI relates to other change approaches, such as audit, research, transformation etc. • The fundamental skills and knowledge every coach needs such as GROW coaching, coaching an aim and the common challenges in coaching QI.	As above.
2 **Contracting QI**	• How to contract as a coach and a first go at coaching.	As above.

* See the QI refresher section of the handbook for a detailed explanation of the stages of QI work

Session	What the coach will learn and do	How this relates to coaching improvement work*
Working with People		
3 **Working with groups**	• How to foster good relationships within teams. • How Liberating Structures can support good and fair participation in group discussion.	This is where you will meet the improvement team for the first time. At this stage you should focus on explaining your roles, agreeing ways of working and beginning to *define the quality issue*.
4 **Context and QI**	• Context, culture, and sustainability, and how contextual factors can make or break QI work.	Once the improvement team has a focus, the next step is to better *understand the current situation*.
5 **Involvement**	• Strategies to advocate for better inclusion and engagement of patients. Coaches are also given the chance to individually teach a technical concept.	QI teams that involve patients are four times more likely to succeed. Involvement is important when *developing a strategy for change*.
Coaching Measurement		
6 **Data and SPC**	• How to use data to support teams, breaking down measurement into easy, practical methods. • How to use Statistical Process Control (SPC) charts, a common feature of many providers' reports, as well as improvement work.	Good evaluation is key when reflecting on changes. Coaches are pivotal in supporting a team to identify how they will *measure for improvement*. SPCs are the gold-standard when measuring QI work. This session will strengthen knowledge from the previous session.
Human Side of Change		
7 **Behaviour Change**	• How to apply an evidence-based model to support behaviour change, and how to use a simple model for framing resistance to change.	Lots of QI work involves challenges and obstacles. Coaches should work with teams to support them to take forward ideas using *small-scale testing*. The best ideas can then move on to *sustain and spread*.
8 **Change concepts and next steps**	• How to use change concepts and creative thinking to promote new ideas to tackle a problem. • Next steps as a coach. • Preparation for the final assessment (where applicable).	As above.

* See the QI refresher section of the handbook for a detailed explanation of the stages of QI work

Aim and Learning Outcomes of the Programme

Aim

Support individuals to develop the skills and knowledge required to independently and confidently coach a team through improvement work.

During this programme you will be studying and working at the same time. In addition, you will be developing your skills, knowledge and behaviours so that you can make progress towards meeting the high expectations that your managers and colleagues have of you.

This handbook is designed to help you do all of this.

Learning outcomes

By the end of the programme you will be able to independently:

1. Coach an improvement team ensuring robust application of QI methods and principles
2. Understand the concepts of coaching improvement and the difference between coaching and advising
3. Explain your role as a Quality Coach to different stakeholders
4. Promote an environment that encourages team members to contribute equally to the development of improvement work
5. Assimilate QI knowledge and facilitation skills that support teams to progress through the different stages of QI work
6. Help teams to understand barriers and enablers relating to their QI work, in support of the sustainability of interventions
7. Advocate for meaningful involvement in QI work and advise teams on methods for involvement
8. Coach a team to identify, collect and interpret data in support of their improvement work
9. Apply creative problem-solving methods and behaviour change concepts to support teams to revive a stalled effort
10. Critically analyse your own limitations and the limitations of coaching.

Supporting You as a Coach

You will be supported by the programme team throughout the duration of this programme. We use an 'active' approach to teaching, which will provide you with opportunities to discuss and apply coaching/improvement theory and concepts. Inside the classroom, space is provided for different, engaging activities to help you grow as a coach, including coaching circles, teachback, and All Teach, All Learn. Outside of the classroom you will be supported by mentors and buddies, as outlined below. See more details on these approaches below.

Mentors

You will be assigned a mentor who will meet with you at various stages throughout the programme. Their role is to support you in your development as a new Quality Coach, by facilitating reflection, helping you to answer unresolved questions and devise strategies to continually develop in your role. They will be an experienced improvement coach themselves, so you should capitalise on your time with them. On page 66 you will find space for some personal objectives that you should set as part of this programme. You should discuss these with your mentor and reference them in all of your conversations.

Buddies

We encourage you to find a buddy on the programme. This person will act as your immediate support as the programme and work you are coaching progresses. Your time with them will be informal; however, you may work with them a lot in the classroom-based activities. Buddies are often a peer on the programme or a recent graduate of the programme.

Coaching circles

Coaching circles[5] involve a small group of coaches, who meet at key stages of the programme. It is a peer-to-peer coaching model. The benefit is that you are all going through the same programme, and have more than one person to support you (vs conventional 1:1 coaching). There will be up to four coaching circles in your programme, dependent on its duration, so all in the group take turns being a coach and coachee. An outline of the structure, principles, set-up and order of running a coaching circle is shown below.

Suggested structure

- **Purpose:** to seek the expertise, guidance and support of Quality Coach peers, to respond to ongoing improvement coaching challenges.
- **Principles:**
  - The subject for discussion should be a real coaching challenge that is current and concrete
  - The 'coachee' should be highly involved in the topic of interest (it shouldn't be something that they are only marginally involved in)
  - There is no hierarchy in the room – you are all peers
  - There needs to be trust and positive energy among the peer group
  - Discussions should remain confidential and should not be discussed outside of the meeting without express permission from each member of the coaching circle
  - Quality Coach peers shouldn't give advice; they should listen and coach the 'coachee'.
- **Set up:**
  - Around five people, attending either in person or via video conference (e.g. MS Teams)
  - 60+ mins required.

5 Coaching circles are based on Case Clinics, a peer coaching process developed by the u-school for Transformation. www.u-school.org/case-clinic

STEP 1 2 minutes

Select the 'coachee' and time-keeper

- The 'coachee' should be someone with a concrete and current coaching challenge that they would like support with
- The time-keeper's role is to help ensure the meeting stays on track.

STEP 2 10–15 minutes

Intention statement by 'coachee'.

Clarify these questions:

- Current situation: What key challenge or question are you up against?
- Stakeholders: How might others view this situation?
- What future are you trying to create?
- Threshold: What do you need to let go of – and what do you need to learn?
- Help: Where do you need input or help?

Coaches listen deeply and may ask clarifying questions (don't give advice!)

STEP 3 10–15 minutes

Short silence (stillness)

- Coaches should reflect on what they have just heard from the 'coachee'.
- What feelings, images, gestures and metaphors come to you, based on what you have just heard?

STEP 4 10 minutes

Mirroring

- Each coach shares the images/ metaphors, feelings and gestures that came up in the silence or while listening to the case story.
- Having listened to all coaches, the 'coachee' reflects back on what they heard.

STEP 5 20 minutes

Generative dialogue

- Reflect together on the remarks of the 'coachee', and move into a generative dialogue on how these observations can offer new perspectives on the case.
- Go with the flow of the dialogue. Build on each other's ideas. Stay in service of the 'coachee' without pressure to fix or resolve their challenge.

STEP 6 8 minutes

Closing remarks

- By coaches.
- By 'coachee': How do I now see my situation and way forward?
- Acknowledgment: An expression of genuine appreciation to each other.

STEP 7 2 minutes

Individual reflection

Just-in-Time training

(used for teachback in the programme)

Just-in-Time training is a simple teaching strategy that provides short, purposeful training to individuals at the exact moment that they need it. For example, in your role as a coach you may be working with a team who are analysing a complex issue or problem that they do not yet fully understand. Using Just-in-Time training, you may teach them about root cause analysis tools such as the fishbone diagram, which they would then use to explore the problem further.

It can be useful to build up a resource library for the common tools and techniques you might use with teams that you will coach. With good preparation you will then be able to quickly deliver high-quality, timely training to teams using the Just-in-Time approach.

To support you with this, you will take part in several teachback activities throughout the duration of the programme. The teachback activity involves you working with a small number of your peers to develop a teaching resource on a given QI topic at short notice, without the opportunity to prepare beforehand. Example topics include driver diagrams, setting a SMART aim, run charts, Family of Measures, fishbone diagrams, stakeholder mapping and many more. You will have a short period of time (e.g. ten minutes) to rapidly create a Just-in-Time training resource (using slides, visuals or similar). You will then test your resource out with the wider group of delegates by teaching the content immediately after creating it. Not only will you get to practise Just-in-Time training, you will also develop a pool of resources on QI tools. If you share with all delegates on the programme, you will quickly have a library of educational resources on QI tools.

All Teach, All Learn

All Teach, All Learn is an activity that focuses on developing your skills as an independent and self-directed learner and educator in QI. For this activity each delegate should prepare a 10–15 minute presentation on a QI tool that isn't taught as part of the programme, or in the teachback activities as mentioned previously. Presentations are delivered by individuals and you will normally have around four weeks to prepare for the session. The topics that each delegate teaches are either assigned by the faculty or selected from an extensive list of options.

The purpose of the activity is to provide an opportunity to expand your knowledge of QI and to provide you with good practice in researching more about QI. Many improvers in healthcare are self-taught to some extent and so honing your skills to absorb and learn new QI concepts and tools is vital. Importantly, this activity also provides a safe environment for you to practise your teaching skills with useful feedback from the faculty.

In this activity you will also learn from your peers about different and exciting QI topics.

02

Pre-programme

This chapter focuses on:

Quality Improvement Refresher

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This content has been collated to provide a refresher on quality improvement methods for improvement teams. The materials included in this section reflect the fundamental concepts of QI that teams should apply in practice. Delegates on the Quality Coach Development Programme should fully understand these concepts before they begin coaching teams in improvement work.

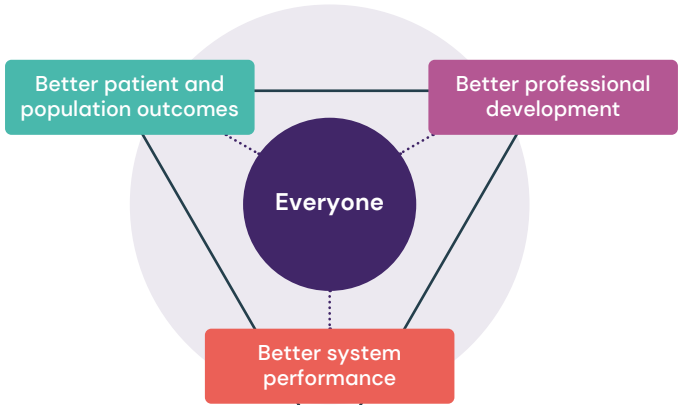
What is Quality Improvement?

'Quality improvement is about giving the people closest to issues affecting care quality the time, permission, skills and resources they need to solve them. It involves a systematic and coordinated approach to problem solving, using specific methods and tools, with the aim of bringing about measurable improvement.'

The Heath Foundation (2021)

The Health Foundation (2021)[6] states that 'Done well, quality improvement can deliver sustained improvements not only in the quality, experience, productivity and outcomes of care, but also in the lives of the people working in healthcare.'

The focus for QI is on **everyone** making changes that lead to better patient outcomes (health), better system performance (care) and better professional development (learning). This is shown in the diagram below.



Source: Batalden (2007)[7]

Quality improvement is not a one-off event. It should be seen as a continuous activity that forms part of the everyday job for people working in healthcare.

The philosophy is simple:

QI is everybody's job and should be done every day.

6 The Health Foundation (2021) Quality improvement made simple. www.health.org.uk/sites/default/files/QualityImprovementMadeSimple.pdf

7 Batalden, P.B. and Davidoff, F. (2007). What is "quality improvement" and how can it transform healthcare? *BMJ Quality & Safety*.

The Six Stages of Leading QI Work

Stage 1

Identification of a quality issue

- What matters the most?
- Speak with patients and service users to understand what might need to change
- Engage with your colleagues
- Review all information to understand opportunities for improvement
- Form your team
- Assess local readiness for QI

Stage 2

Understand the current situation/ problem

- What is the current state?
- What local learning exists to feed in to your understanding?
- Identify the key stakeholders that you will work with
- Think about how to engage others in your QI work
- Analyse the situation using tools like process mapping and cause-and-effect diagrams

Stage 3

Measure for improvement

- Set a SMART aim as a team
- Develop a measurement plan using the Family of Measures
- Collect meaningful data
- Plot your data over time
- Share your findings with your team and patients
- Continuously update progress using visual techniques

Stage 4

Develop a strategy and change ideas

- Generate improvement ideas based on the findings from previous stages
- Consider sustainability when selecting changes
- Develop a driver diagram
- Create a plan and share this with your local teams

Stage 5

Small-scale testing

- Use the Model for Improvement to test change on a small scale
- Monitor the data as you test the change to inform your improvement work
- Consider the human side of change as you test change and scale up
- Share your progress as you go

Stage 6

Sustain improvement

- Implement the change ideas that have been shown to work
- Make the change business as usual
- Build quality control systems to ensure changes are sustained

STAGE 1

Identification of a Quality Issue

By the end of Stage 1, you will:

- Understand how to approach deciding what the focus for your QI work should be
- Know how to form your QI team, and assess your organisation's readiness for QI
- Learn how to manage QI work effectively.

Deciding what to improve

An important first step to take when embarking on any QI work is deciding what the focus should be. This may be immediately clear to you; or it may have been identified by others, such as management, or through insights from data or quality control.

If you have not yet identified a topic for your QI work, then you may find these tips helpful:

1 Speak with colleagues

We know that the people closest to the issues affecting care delivery should be the ones to implement improvements. Speaking with colleagues is a powerful and simple way of understanding what needs improving most urgently.

2 Speak to patients and carers

Patients and carers are often the only people who experience the entire patient journey. They get to see the best and worst aspects of our services and systems and so are a great source of insight for QI work.

3 Look at the data

Consult data, where possible, to determine areas for improvement. For example, if you have access to an incident reporting tool, you may wish to use this to explore incidents and near-misses.

4 Consider the 'quick wins'

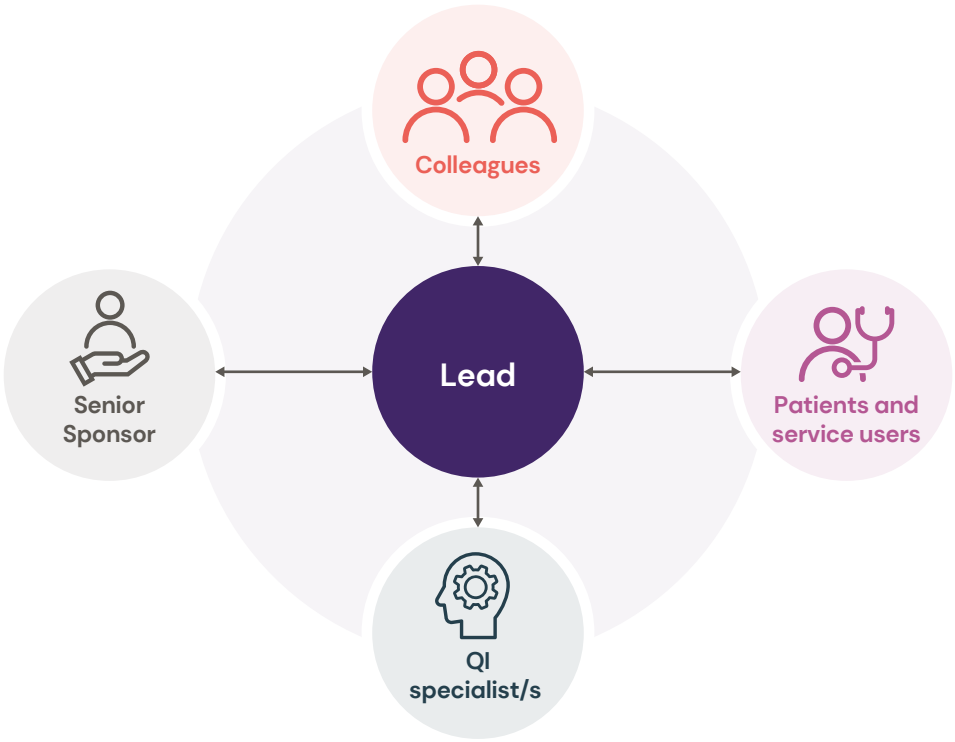
A 'quick win' is an improvement that is visible, has immediate benefit and can be delivered quickly. When deciding what you want to improve, you may think about the urgency that is needed and opt for quick wins.

5 Look at other QI work for inspiration

Speak to colleagues to learn about other QI work that has taken place in your organisation and beyond. They can look at successes and failures to help inspire your work.

Forming Your Improvement Team

QI is a team sport and should never be done in isolation.



The first step of any improvement work is to consider who it impacts, and therefore who should be involved in designing, delivering, and evaluating the improvement work. The improvement team should take a collaborative approach, ensuring the following are involved:

1. **Lead**
   An individual driving the improvement work forward and developing and implementing the ideas for improvement.
2. **Senior Sponsor**
   A senior member of staff who holds influence in the department/service and who can provide expert advice on the improvement work.
3. **Colleagues**
   It is important to have the support of your colleagues to implement and sustain change. We suggest the improvement team includes a range of staff members who are encouraged to attend QI training, where available.
4. **Patients and service users**
   Patients and service users will have a unique input into the design, development and implementation of improvement work. The improvement team should seek their feedback and guidance where possible.
5. **QI specialist/s**
   An individual or team who can provide expert advice or support the implementation and evaluation of change.

The role of a Senior Sponsor

As a coach you will often need to explain the role of a Senior Sponsor to improvement teams. This will help them to identify the most appropriate person to act as a Sponsor, and will enable the team to explain the role to the Sponsor. Sponsors play an essential role in the delivery of improvement work. Without a Sponsor, improvement work can stall, sight of the original purpose may be lost, or teams may focus on lower priority QI work instead of more pressing issues. The role of the Sponsor is to support teams to deliver meaningful change, at pace.

The improvement team and the Senior Sponsor should both be clear on what the role entails and what is expected of each of them.

Who is a Senior Sponsor?

Typically, a Sponsor is an established leader or manager who holds influence within the service and/or division.

What are the Senior Sponsor's responsibilities?

- Champion the QI work across the service/ division, including at senior forums
- Ensure all in the service are aware of the basic premise and purpose of the QI work and help provide a space to discuss or showcase it
- Give the improvement team the support and resources needed to take the work forward at pace
- Have occasional meetings with the improvement team to:
  - Provide expertise and advice on the changes, when requested
  - Challenge the team on progress and seek remedial action as required
  - Discuss the work in line with the Model for Improvement, or other agreed QI methodology
  - Seek assurance using data, with an emphasis on learning
  - Support the team to overcome barriers and keep moving forward
- Share successes and support spread and adoption of change
- Have good awareness of QI methodology.

Organising to improve

Organising to improve is a key skill for any improvement team looking to make the care, processes and systems better where they work. Without good planning and coordination, improvement work can start to feel overwhelming and difficult to manage. Organising to improve is all about effective project management.

Here are our seven top tips for organising to improve that you can use to manage your QI work effectively from day one.

1 Meet frequently as a team

A good rule of thumb is to have a weekly meeting with the core team members. It doesn't need to be long – 15 minutes could be enough!

The purpose of these short meetings is to manage and oversee the QI work. Any of the actions or the 'doing' should be left for outside of the meeting.

2 Have a clear structure for your meetings

Use the 7 step meeting process (page 119) to provide a clear, simple structure to your QI meetings.

The most important thing is that every meeting should have a nominated facilitator to run it. They will keep things on track, assign roles and ensure you are making the most of your time together.

3 Keep good record of your tasks

As your QI work progresses, you will find that you have many actions and tasks to undertake at the same time. For instance, you may be meeting with key stakeholders, running workshops such as a process mapping session, collecting data, analysing data, updating project management tools – the list goes on!

An action log can help you to keep on top of this. This can be a simple document or spreadsheet with a number of categories such as: list of tasks, deadline for each task, who is responsible for each task, the progress so far and key learning. You may use this log to support your short team meetings.

4 Use visual displays to share your progress

It is important to share and celebrate your progress as you go.

Use visual displays to showcase your work and update the team on how you are doing. You can do this on site or using a virtual space – whichever works best. Typical displays include items such as SMART aims, driver diagrams, PDSA cycles, annotated run charts, key learning, and your future plans. Using a visual display can also be a great opportunity to engage and collaborate with your team by seeking their feedback and input into the QI work. You may have a 'you said, we did' space or a 'suggestions' section of the visual display.

5 Involve the right people at the right time

The improvement team does not need to involve everyone in everything it does. Be strategic with who is involved and when they are engaged. Make the most of people's time by inviting them to meetings only when you need their advice, support, or input. The improvement team can still update the wider team through other methods, such as visual displays, which they can peruse when they find the time.

6 Focus on learning, not perfection

There is rarely a 'silver bullet' to your problems in QI – instead you should invest your energies in designing QI work to maximise the potential for learning. Being flexible is crucial here – your SMART aim, measures and improvement ideas may all change as the improvement evolves. Only as the improvement work matures and after testing your ideas with PDSA will you be able to think about how to perfect and sustain your best ideas.

7 Make life easier for yourselves and have fun!

Improvement work is often done on top of an already busy work schedule. Consider how the improvement team can use existing structures, such as meetings, data etc. to get QI work done. You should try to make your time together as an improvement team fun and enjoyable. Make your meetings the highlight of your work week by using activities and energisers to warm-up – don't be afraid to think outside the box a little.

Assessing readiness for QI

The context in which improvements are made is arguably as important as the interventions themselves. Context and local cultures – or the way things are routinely done – serve to facilitate or act as a barrier to improvement efforts in healthcare.

A useful metaphor for the importance of context is the change bus. Are you getting onto a broken-down bus on mountainous terrain, with little chance of success? Or are you getting onto a nice, new bus on smooth, well-marked out roads?

Just like the broken-down bus, an improvement idea cannot get started in a context which doesn't accept the new intervention due to structural or local norms. On the other hand, just like the new bus, improvement ideas can accelerate and become successful in the correct context.

The below examples identify the same improvement project, but with different contexts either serving to help or hinder the project.

Project
Increasing the percentage of staff on Purple Ward reporting that they have had a good week from 45 % to 75 % in six months

Enablers for change

- Full support and endorsements from CEO
- Project team have prior experience of projects on morale
- Front line staff are highly motivated to support the project
- Allocation of corporate resourcing for QI/cultural support
- Patient family partner representative at Board Meetings champions the project
- Staff morale is a priority

Disablers for change

- Appraisals are seen as a tick-box exercise in Trust
- HR also leading another project on wellbeing which may confuse staff
- No budget for additional resources
- Lack of cohesion amongst different professionals (doctors, nurses, allied health professionals)
- Lack of buy-in from operations management
- Team are not skilled or trained in data

STAGE 2

Understanding the Current Situation or Problem

By the end of Stage 2, you will:

- Know how to work with stakeholders as part of your QI work
- Understand strategies for getting people on board with your improvement work
- Learn about different tools for analysing a problem or opportunity.

Stakeholder Management

A stakeholder is an individual or group of people that have an interest in the delivery of a project, or are affected by its outcomes (positively or negatively).

Stakeholder management is an important early step in QI work. By engaging with stakeholders, you will find they can support the improvement team to:

- Gather more insights into the cause(s) of a given problem from a variety of perspectives
- Generate new and different ideas
- Test change using PDSA cycles
- Avoid conflicts and delays down the line caused, because key people will have been involved at the start.

Actively engaging a wide variety of people such as clinicians, managers, support staff, patients, user groups and other providers will help you deliver your improvement work. A stakeholder analysis enables you to identify everyone who needs to be involved and assess how much time and resource to give to maintaining their involvement and commitment.

Steps to successful stakeholder management

You can follow five simple steps for working with stakeholders as part of any QI work.

1 Identify your stakeholders

Start by brainstorming a list of all the people and groups likely to be **interested in** or **affected by** the proposed change. You could bring a small group of well-informed people together to do this, or start the list yourself and share it with others so that they can add to it.

If there has been previous or similar QI work, it is often a good idea to involve representatives from that project in the workshop to share their learning (regardless of whether the previous improvement efforts succeeded or not).

Consider whether some of the stakeholders can be grouped together because they have a similar perspective on the issue or its impact. But be aware of the risk of assuming that people are 'all the same' without knowing enough about their individual characteristics and opinions.

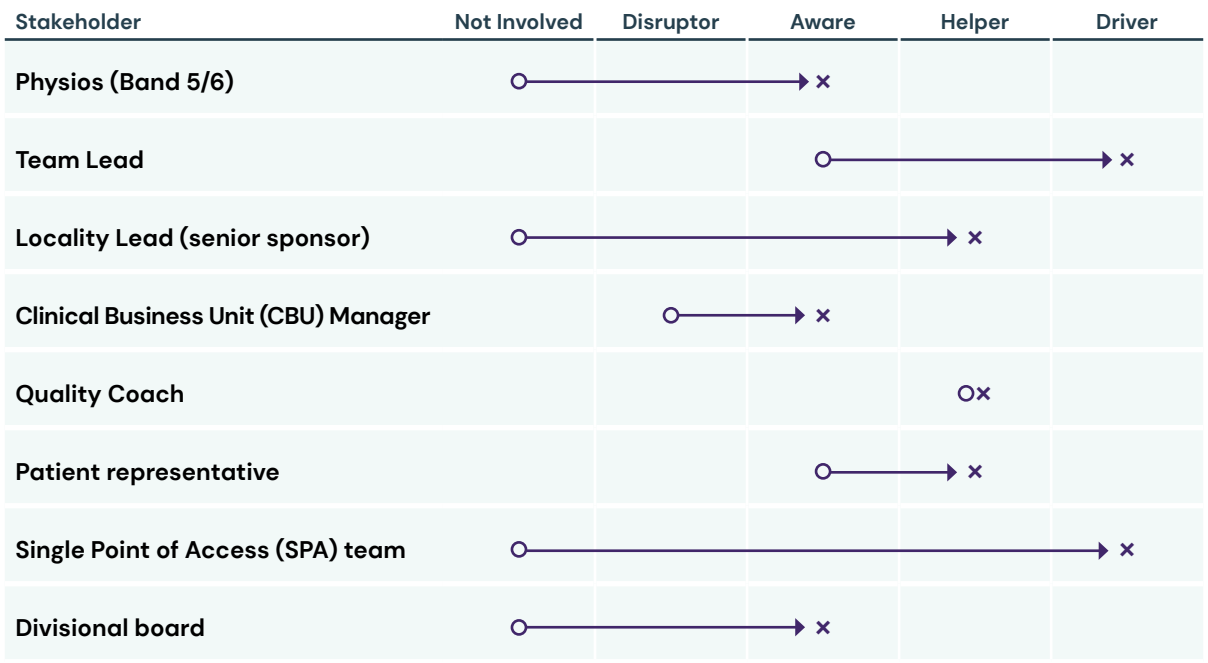
2 Analyse your stakeholders

Once you have generated the list of names, analyse each stakeholder by considering whether they are:

- **Not involved** in the QI work (they may not need to be)
- **Disruptors**, who may cause frustration, delays, conflict or other issues that prevent the QI work from proceeding. This is not always a deliberate act – it can be accidental
- **Aware** that the QI work is taking place, but not actively involved
- **Helpers**, who support the QI work in some capacity. This is often a small-to-medium level of involvement such as through supporting data collection, providing insights in a workshop, creating presentations etc.
- **Drivers**, who are the **main force** in the work. They have a key interest in its success and are pivotal to the change.

To help you with this, we suggest you use the QI stakeholder matrix (outlined on the following page).

Example of a completed stakeholder matrix



Categorise your stakeholders using the matrix above. By plotting where you want/need them to be (×) and where they are now (○), you can assess the work needed to manage your stakeholders. When completing this task, you should make sure group members feel able to state their opinions freely. The stakeholder matrix is highly confidential, so the attendees of the workshop need to agree clear 'rules' on how it is to be used/where it is to be stored.

Bear in mind that some of your stakeholders may not see the benefits/other characteristics of improvement work in the same way as you (the improvement team) do. Their perspective may be quite legitimate, and you should be ready to adapt your work in response to their feedback. Where flexibility isn't possible, you should be upfront with your stakeholders. For instance, the improvement may require some stakeholders to do some extra work, in order to achieve a bigger goal.

3 Plan an engagement approach

There isn't much point in doing stakeholder analysis unless some action comes about because of it! The improvement team should use the completed stakeholder matrix to develop a strategy for engagement. Questions to consider include:

- What methods can be used to engage with stakeholders throughout the work?
- Who has the largest shift to make (longest arrow) and how do we get their support?
- Can stakeholders support the improvement team with engaging other stakeholders?
- How can the improvement team work with the disruptors to gain their support?

A helpful tool for planning engagement is a communications plan. An example communications plan is shown below.

Example QI Stakeholder Communications Plan

Stakeholder	Engagement needed	Owner	Channel	Frequency
Team Lead	High	HP	QI project meetings (virtual)	Weekly
Locality Lead (sponsor)	Moderate	SB	Catch-up meeting with project team for 30 mins	Monthly
Physios	Low	HP	5 minute update at team huddle. Share progress on visual board	Fortnightly
Service Manager	High until they are supportive, then Moderate	EH	Personal check-in meeting (in person) to discuss issues and objections with project team.	One-off
Patient representative	High	HP	QI project meetings (virtual) but only when needed	Weekly
SPA team	High	SB	Co-design workshop using fishbone and driver diagrams	One-off
Operational Manager	High	HP	Short update via email and during team meeting	Fortnightly
Divisional board	Keep informed	HP	Short update (presentation)	Quarterly

Asking for support: the elevator pitch

A useful tool for initially engaging with stakeholders is the elevator pitch. An elevator pitch is a brief, persuasive speech that you use to spark interest in your improvement work. An elevator pitch can help you to 'pitch' your plans with your colleagues, managers, patients etc. to get them on board. A good elevator pitch should last no longer than a short elevator ride of 20 to 30 seconds, hence the name.

Your pitch should be interesting, memorable and succinct. We suggest you use the SIR model to structure your pitch.

You might support this pitch with images, a slide or two, or some other form of presentation. If so, make sure it is succinct!

S	I	R
Situation	**Impact**	**Response**
explain the problem in simple terms and your role in the problem	explain how the problem impacts patients and staff (you might want to use stories and/or data to help with this)	explain what you hope to do about it and what help you need

Source: Fouts, R. (2011)[8]

4 Manage your stakeholders

The improvement team should maintain meaningful contact with stakeholders, as frequently as the QI work requires. Aim to capitalise on existing meetings, forums and opportunities when working with stakeholders – e.g. use the end of an existing meeting to update everyone on progress, or use space in your work area to showcase progress visually.

Don't over-involve people. You should only involve stakeholders as required. Don't invite people to a meeting if you will only involve them two months down the line – this may only lead to apathy or frustration.

5 Review as the project develops

Stakeholder management isn't a one-off event. The improvement team should review the stakeholder matrix and comms plans as the project develops. Perhaps people who weren't considered earlier on now play a pivotal role in the success of the QI work?

8 Fouts, R. (2011). How to Craft the Perfect Elevator Pitch. https://rich-fouts.medium.com/how-to-craft-the-perfect-elevator-pitch-c561f0bb0d09

Analysing Your Problem or Opportunity

A good understanding of the problem is crucial to the success of QI work. By thoroughly analysing a problem and identifying all possible causes, you can work towards tackling the problem at hand.

If this step is skipped, then teams are likely to only address the superficial symptoms of a problem and not the underlying cause(s). This will result in short-lived or failed improvements.

This task should always be completed as a team. Working through cause-and-effect analysis enables those involved to gain a shared insight into the problem, develop possible solutions and create a snapshot of the team's collective knowledge.

In this section we will showcase three useful tools for analysing a problem or opportunity.

- Fishbone diagrams
- 5 whys
- Process mapping

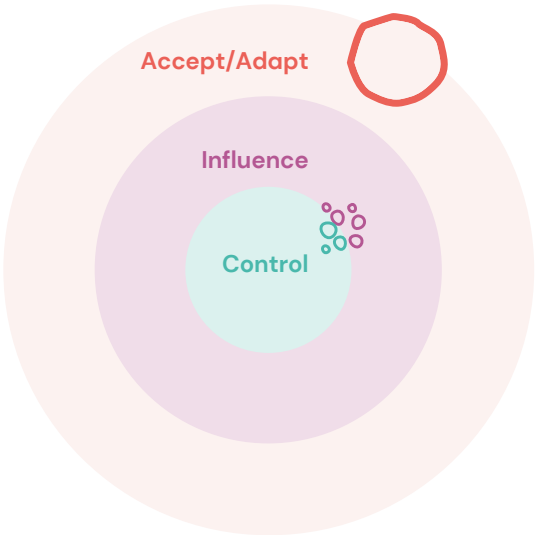
Each of these tools is outlined in more detail on the following pages.

When analysing the problem, you should focus on what you can control:
think pebbles, not boulders.

The root causes to a problem can be categorised as boulders or pebbles and we can map them onto this bullseye which shows there are some things in our day-to-day work that we can control (centre), there are some things we can influence (middle circle) and there are some things we must accept and/or adapt to (outer circle). This is also known as the CIA Model (see page 63).

Boulder
These are the things that are out of your control or influence. You can only respond or adapt to these challenges. A common example of this is the financial constraints on the service.

Pebbles
Refers to the question "what are the pebbles in your shoes?" i.e. what are the things that frustrate you and slow you down, which you are able to change – either because they are directly under your control, or because you hold influence over changing them.



Fishbone diagrams

Fishbone diagrams[9] are used in most QI work to support the analysis of a problem. The steps to plotting a fishbone diagram are outlined below.

1 Identify the problem you want to focus on

Draw a horizontal line towards the problem on the right-hand side. Think about who is involved, when and where it occurs.

2 Identify the major factors

Simple diagrams use four categories: equipment, environment, methods and people.

3 Brainstorm possible contributing factors within each major factor

Suggested categories are shown within each major factor on the diagram. Exploring each category in more detail and listing the things which are contributing to the problem should help you arrive at root causes.

4 Analyse the diagram

Once you have outlined all the factors from the previous steps, you need to investigate causes in further detail. This may be done through interviews, process mapping or other techniques.

We have created a simple example of a completed fishbone diagram below. You may wish to use more specific categories instead of the four in the example, for instance:

People could be broken down into

- Team factors (how the team works together resulting in the problem)
- Communication factors (could be between the team, between staff and patients, between the organisation and other providers etc.)
- Education factors (do people know what to do? Do they have the skills?).

Example of a fishbone diagram – exploring long waiting times in a clinic

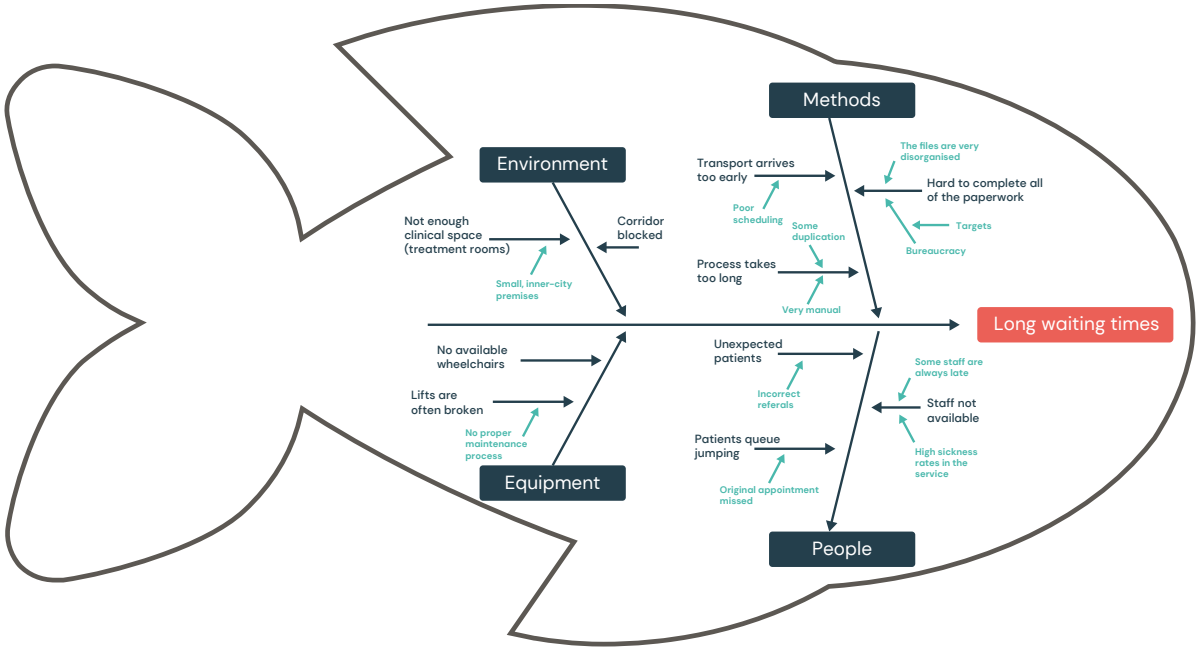


Image adapted from East London NHS Foundation Trust[10]

9 Ishikawa, K. (1968). *Guide to Quality Control.* JUSE, Tokyo.

10 East London NHS Foundation Trust. Cause and Effect Diagram (Fish Bone). https://qi.elft.nhs.uk/resource/cause-and-effect-diagram-fish-bone/

Using 5 whys to understand cause-and-effect

By repeatedly asking the question 'why?' we are often able to quickly identify the source of an issue or problem. 5 whys is a problem solving tool used to identify the root cause to a problem, to ensure actions address the true problem and not a more superficial symptom.

The concept of 5 whys is simple – keep asking 'why?' until you get to the true root cause of a problem. The number '5' is just a rule of thumb – you may need to ask 'why?' only three times or even ten times to come to the root cause.

The tool is frequently used during the investigation of an adverse event such as patient harm or the investigation of a near miss. It can be used as a standalone tool as well as in conjunction with other tools such as the fishbone diagram.

This tool should be used by a multidisciplinary team who can provide the insight and expertise needed to identify the root cause(s).

When using the tool you should develop countermeasures for the root cause as well as all other issues and symptoms that are identified. If you identify an issue after the first 'why?', then think about how you could prevent that issue, whilst continuing to ask 'why?' until you reach the root cause.

A simple example

Project:
Increasing the percentage of staff on Purple Ward reporting that they have had a good week from 45 % to 75 % in six months.

Problem:
We don't feel connected as a team.

Why?

Because we don't see each other very often.

Why?

We never have informal chats or meetings.

Why?

Because we all work remotely now, since the start of the Covid-19 pandemic, and only have formal meetings.

Why?

Because we never considered how to connect informally in a virtual setting (we thought this set-up was temporary!).

Process mapping

Process mapping is a simple and powerful tool for understanding problems in processes, such as delays or duplication of work or effort. A process map is a visual representation of the steps involved in a process.

Process maps are used widely in QI, given they enable staff to understand (sometimes for the first time) how complicated a process can be. Completing a process map collaboratively can help to address misconceptions, and to ground improvement work in fact rather than perception.

The basic steps of conventional process mapping are the same regardless of the type of map you are producing, where you work or what you are looking at. When developing your map, aim for the level of detail you need; too much detail may bog you down, too little will mean the map is unhelpful.

Common flowchart symbols used in process mapping

	Start/end of process
	Task or activity
	Queue
	Decision required
	Direction or flow

How to create a process map

Clarify the process (or part of the process) that is being reviewed, as well as any boundaries for the improvement work.

Identify and invite stakeholders to the process map session; think about everyone who might be involved in the process, including patients and carers. You will not necessarily realise the number of people involved, so ask for suggestions and encourage others to invite people as well.

Identify the type of process map you want to create (e.g. high-level, common, detailed, time-value).

Run the workshop, inviting participants to identify all the steps in the process. Typically, this involves adding sticky notes to a wall or whiteboard. There are two different types of process maps – you may produce one, or both:

- Current State map – including all issues and problems, such as process/step duplications, long waits, delays, rework loops etc.
- Future State map – including only the work as you want it to flow, in an ideal scenario.

Ensure the steps are in the correct order, working from left-to-right. Maintain a consistent level of detail throughout. Ensure that you specify specific start and end points so that you remain focused on the task.

Discuss the results – does it fit with the day-to-day experiences of the team? Some suggested questions to ask as a team are below – amend your map as needed.

- How many handoffs are there? Are any of these unnecessary?
- Is there duplication of any work? Is there rework? (rework: a step is repeated to correct a defect/error)
- Are there any tasks carried out by multiple people that could be done by just one person?
- Is the right person doing each task?
- What is the time between each step? How long does each step take? Are there any bottlenecks?
- Do all steps add value? (Do they support the achievement/the end purpose of the process?) If not, can they be removed?
- Are we doing things in the right order?
- What information is given to patients, and at what stage? Is it helpful?

Transfer your process map onto one sheet of paper or a computer (e.g. on PowerPoint), if helpful.

Plan how you will use the process map(s) to test and implement improvement ideas.

Some tips when creating a process map

Always date your process map
It's important to maintain version control of the process maps you create. We suggest identifying one person who is authorised to update the chart.

Nominate a facilitator
Creating a good process map requires a team effort, with process owners, patients and the wider team involved in its creation. A facilitator should be nominated to support the production of the current state map and all redesigned maps. The facilitator's role is to establish ground rules, ensure everyone contributes fairly to the map and that the group maintains focus on the task at hand. *(Example ground rules: openness, constructive challenge, confidentiality, respect)*

Walk the process
It may help to walk through the process to understand each step, then go in reverse for a different perspective. Remember to ask – does this step support the end result? Does this step add value (in the eyes of the patient)? It may also help to go to the 'gemba' (the place where the work is done) to observe the process.

Create a 'car park'
When creating the map, you may need a 'car park' to capture any questions and ideas that you could consider after the map is complete. The car park may have sections for (i) improvement, (ii) questions, (iii) assumptions, (iv) additional observations, (v) out of scope questions and ideas.

It doesn't need to be perfect
The purpose of a process map is to reflect the process you are aiming to change; it is not to look 'good' or 'professional'. Use sticky notes to allow for easy re-arrangement of steps and be open to feedback.

Resources
Ensure you have the right resources to hand. If conducting the session in person you may need flipchart paper, sticky notes, marker pens, adhesive tack, scissors and tape. If conducting the session virtually you may wish to use a digital interactive whiteboard like Mural or Jamboard.

Work as a group
Make sure that you complete the process map with other colleagues who interact with the process. Each person will have a different perspective and you will need to understand these perspectives in order to design the best solutions.

STAGE 3

Measuring for Improvement

By the end of Stage 3, you will:

- Understand how to make sure you're collecting good quality data
- Know what to use – and what not to use – when it comes to data presentation.

Data Collection

Measurement and change go hand-in-hand. In QI, we use data to help us make decisions at all stages of improvement work. This includes what to improve, where to improve, how to improve and whether changes that have been implemented have improved patient care. It's important to use and collect good quality data, to ensure it reflects the real work environment. Here are some tips to support the collection of good quality data.

Tip 1 – Data over time
The best improvement work has data that is collected continuously. By collecting and plotting data over time, you can make real-time adjustments to your improvement work, in order to achieve the best outcomes.

Tip 2 – 'Just Enough' data
The phrase '*as much as you can, as little as you dare*' can be helpful when deciding on the amount of data you need to collect for your QI work. You should collect 'just enough' data to support learning from PDSA cycles and to know whether you're going in the right direction. Make a sensible judgement on how much data you need and consider whether waiting for additional data will add any value – often the answer is no!

Tip 3 – Operational definition
Much like a recipe for a cake, if you don't follow the same steps when collecting data, you will end up with a different end result! In measurement, the recipe (or steps to collecting data) is known as the 'operational definition'. As a team you need to agree what it is exactly you are measuring and the steps you should follow to collect the data.

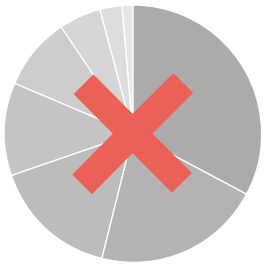
Tip 4 – Use a data collection plan
Using a simple data collection plan helps to provide a consistent approach to collecting data. It prompts you to think about who is collecting the data, what time of day (morning, afternoon, evening and night can be very different), where, how it will be recorded, how it may be presented etc. You may wish to use a data collection template.

Tip 5 – Consider 'stratifiers'
There is the old saying that you can't compare apples and oranges. In healthcare, we need to think about whether there are any 'apples' and 'oranges' in our data – known as 'stratifiers'. Stratifiers are different groups or sub-groups within data that are not comparable. For example, comparing days and nights, weekdays and weekends or two different patient cohorts.

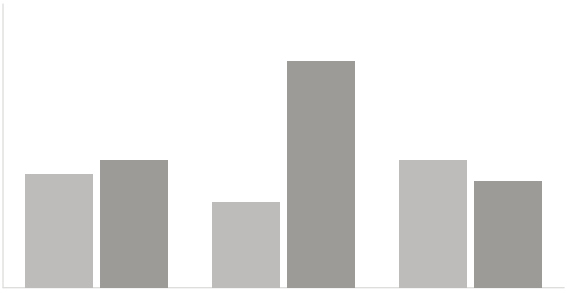
Data Presentation

Types of chart

Do not use pie charts for your data. Whilst they are very colourful, they are not useful for improvement work. It can be difficult to track progress or improvements with a pie chart, as you would need to create two or more pie charts and then compare the proportions within them. In addition, they are difficult to interpret and do not easily visualise data. We cannot correctly see the difference in the chunks of a pie chart so rely on guessing which section is larger or that it is 'roughly a third'. Moreover, without knowing the total number used to create the pie, the sections have no context, so we don't know how much 'roughly a third' equates to.



Bar charts are used to present data in categories, showing the overall number or percentage in an easy-to-read format. Whilst they do not show data over time, they can be useful for understanding data and underlying problems, as shown opposite.



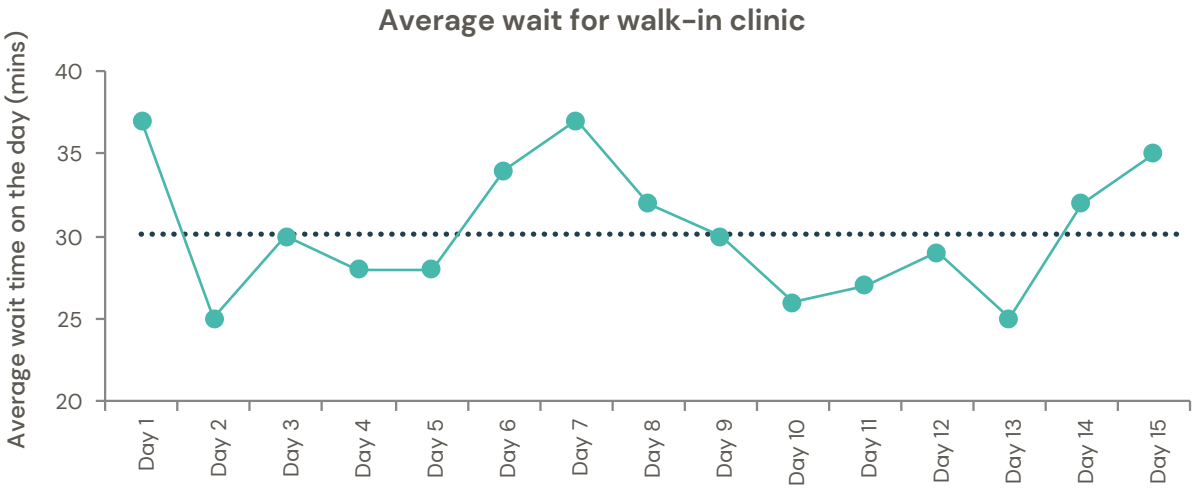
Run charts

Run charts are a visual tool used to plot data over time, rather than in a RAG (red, amber, green) format. Plotting data over time helps us monitor and evaluate the impact of improvement work by looking at any changes in the data, such as shifts or trends. In QI, we want to see changes in the data – i.e. an improvement! Measurement is crucial in QI work and we recommend you use run charts or control charts, wherever possible.

RAG (Red, Amber, Green)

RAG ratings have historically been used in healthcare to indicate 'how well' a measure is performing in relation to a target or standard. Red rating indicates compliance is below the target or standard. Amber indicates compliance is below but near the target or standard. Green indicates that the target is being met. In more recent years there has been a recognition that RAG rating may not provide sufficient details to understand performance, and so many providers have decided to use alternate mechanisms to understand their data. Run and SPC charts are often used instead to enable better understanding of shifts and trends in data.

The anatomy of a run chart



- Time (e.g. days, weeks, months) is plotted along the horizontal line (x-axis)
- Your measure of interest (in this case waiting times) is plotted along the vertical line (y-axis)
- The data is plotted by day and connected with a line (shown in black). You need at least ten points to create a run chart
- The median (shown as a dotted line) is plotted to determine whether significant changes have been observed
- The median is the middle value in a set of data.

Interpreting a run chart

There are two data patterns to look out for in QI. These are known as 'common causes' and 'special causes'.

Common cause: Regular, predictable, day-to-day fluctuations in the data. Nothing really changes beyond what could be expected. For example, the number of births in London is roughly 350 per day, with some daily fluctuations between 300 and 400.

Special cause: Something that has happened that has caused a fundamental change in the system. This could be a positive or a negative change and could be attributed to a change you have implemented from your QI work. When you identify special cause you should ask yourself 'what happened here?'. Learn from your findings and annotate your graph accordingly.

Run chart tips

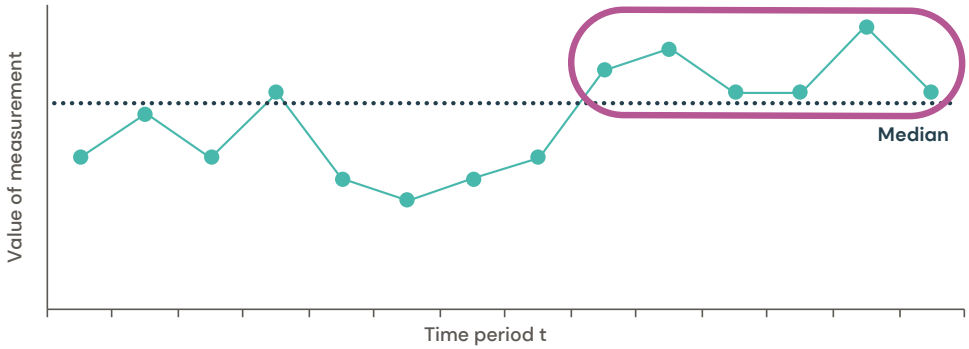
- Collect just enough data to be confident your tests of change are working or not working
- As long as it's appropriate to do so, make your data public! Data is sad when it sits on a hard drive and isn't shared. Display it and share it with your team
- Choose the right tool. Lots of tools exist to support you to use run charts; for example, the quality improvement platform Life QI has a run chart tool
- Collect baseline data (before any improvement takes place) which will help you to establish the different variation in the system and evidence your improvement efforts.

For more information about using run charts to present improvement work, see page 37.

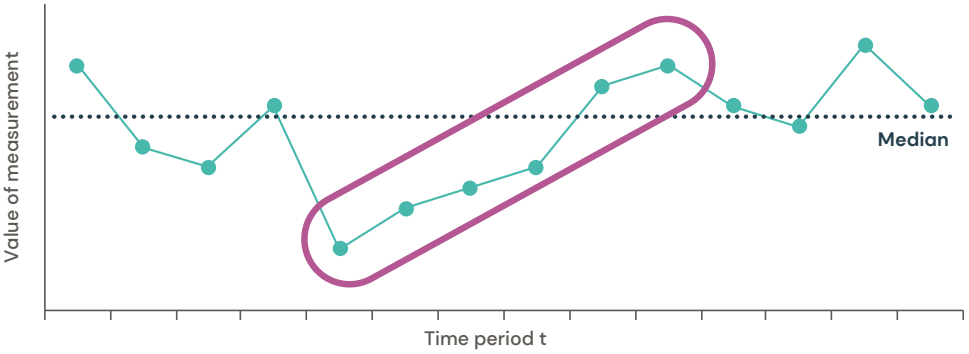
Run chart rules

Special causes can be identified in data using one or more of the following four rules:

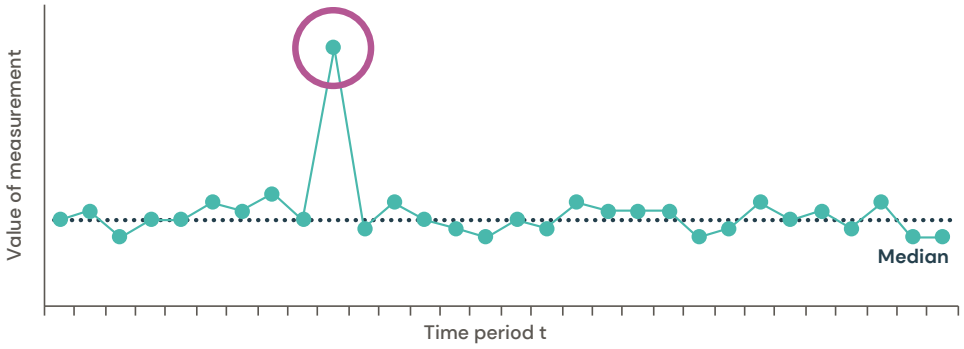
1 **A shift:** 6 or more consecutive points above or below the median (not including points that fall exactly on the median).



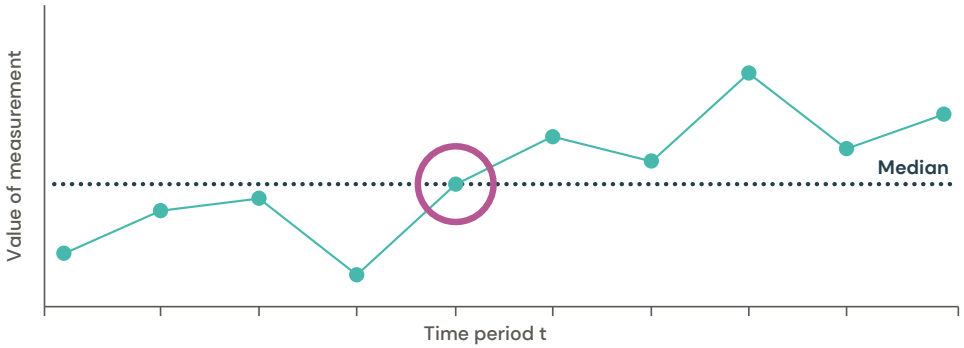
2 **A trend:** 5 or more consecutive ascending or descending points.



3 **An astronomical point:** far above or below the other data points.



4 **Too many or too few runs:** a run consists of one or more consecutive data points on the same side of the median.



STAGE 4

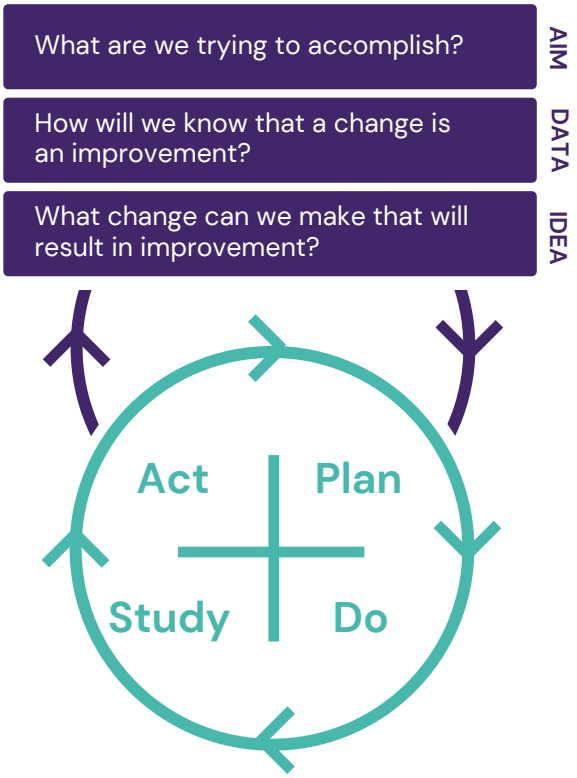
Develop a Strategy and Improvement Ideas

By the end of Stage 4, you will:

- Understand the Model for Improvement and how it can help you
- Know how to use driver diagrams as part of your planning.

The Model for Improvement

Once you have formed your team, the next step is to make a plan for how to improve. The Model for Improvement, shown on the right, can be used as a guiding framework to direct improvement work. The Model for Improvement asks three fundamental questions (shown in the box at the top of the diagram), which are then followed by a Plan-Do-Study-Act (PDSA) cycle. The three questions and PDSA cycle are outlined in more detail over the next few pages.



The Model for Improvement is the most common improvement methodology used in the NHS. It was developed by improvement specialists Associates for Process Improvement in 1997 (Langley, 2009),[11] and since then it has been adopted by the Institute for Healthcare Improvement (IHI)[12] and NHS England.

11 Langley, G., Moen, R., Nolan, K. M., Nolan, T. W., Norman, C. L. and Provost, L. P. (2009). *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance*. Jossey-Bass Publishers.

12 Institute for Healthcare Improvement. How to Improve. www.ihi.org/resources/Pages/HowtoImprove/default.aspx

Three fundamental questions

1 What are we trying to accomplish?

In all QI work, the improvement team should set a SMART aim. By this we mean the aim should answer each of the follow questions:

- **What** are you improving?
  Be specific about patient cohorts, or groups you are targeting in this project
- **Where** are you going to test the change?
  It's important to pilot changes on a small scale wherever possible
- **By how much** are you aiming to improve by?
  Use your baseline to determine a realistic goal
- **When** do you think you'll achieve your aim?
  Be realistic with time-frames.

A **SMART** aim is one that is:

Specific

Measurable

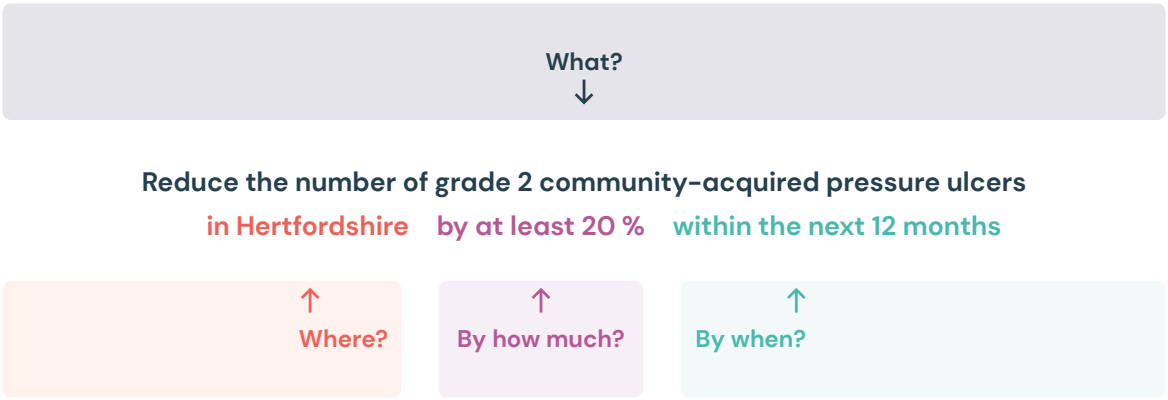
Achievable

Relevant

Time-bound.

By defining a SMART aim, you are clearly defining what the end goal is, and when you believe you will get there. It is something you can work towards, and also enables you to track your progress towards that goal throughout the improvement effort.

Example



2 How will we know that a change is an improvement?
i.e. *what are you measuring?*

By answering this question we are able to determine whether the changes we are making are having a positive impact on patient care. Without measurement we cannot say whether things have improved. We use the Family of Measures to define measures in any improvement work. The Family of Measures is outlined in the table below.

Family of Measures

Name	Description
Outcome	The measure directly linked to the aim. Ask yourself 'what is the outcome I want to achieve?' and then think about how you would measure if you have achieved this. This is the most important measure and every piece of improvement work should have one.
Process	A process measure evaluates the impact of a process that you are either changing or introducing. They are often used to evaluate the uptake of your intervention. Most improvement efforts will have at least one process measure.
Balancing	There can be unintended consequences as a result of an intervention. These consequences can be positive or negative but need to be considered. Not every piece of improvement work will have a balancing measure.

3 What change can we make that will result in improvement?
i.e. *what ideas or hunches do you have that might improve the situation?*

The third question of the Model for Improvement asks you to consider which ideas you want to test. Often the improvement team will have an idea of what and how things might improve.

Driver diagrams

A driver diagram is a visual tool used to display a team's theory of what will 'drive' or contribute to the achievement of a project's SMART aim.

The diagram visualises the relationship between all the possible change ideas, key drivers and the SMART aim. Often, this tool is used to communicate and share the aims and planned interventions for improvement work to a wider audience.

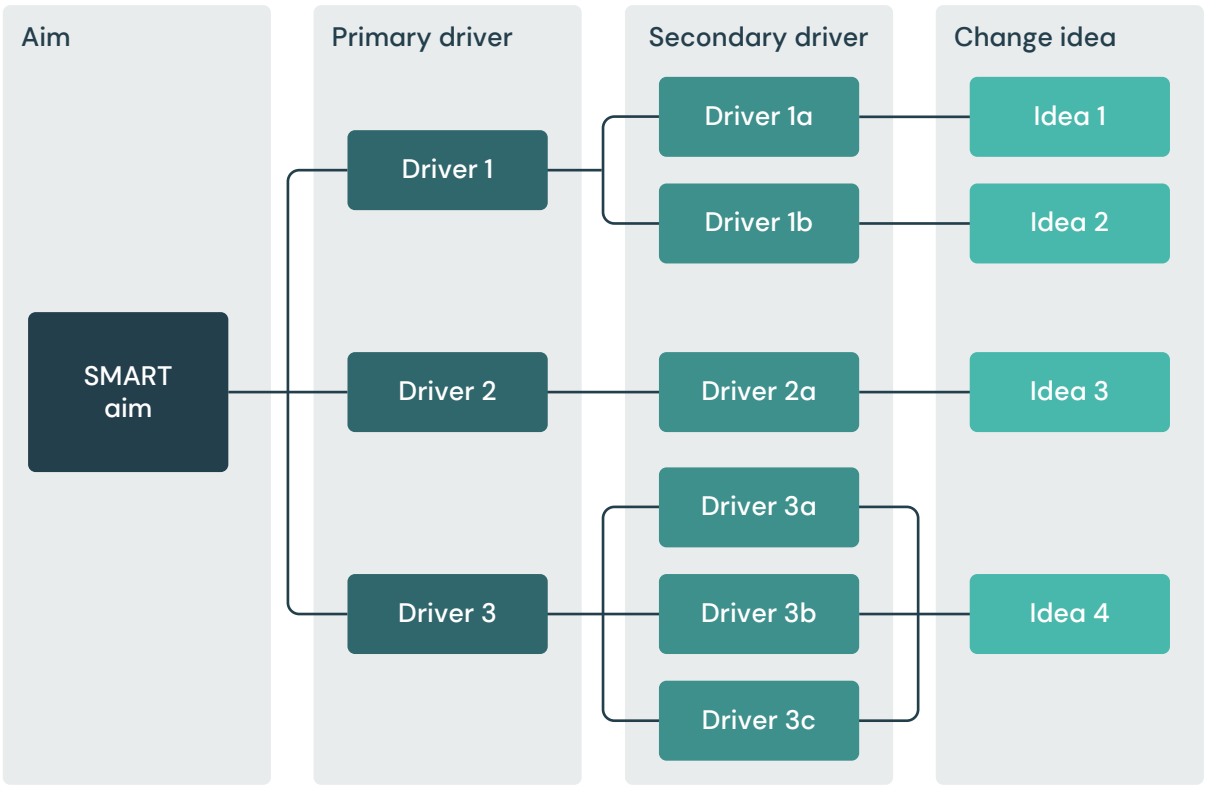
The image below shows the standard layout used in driver diagrams. You may only need one 'driver' category (and therefore not use the secondary driver section).

The improvement team should create a driver diagram during the planning part of the improvement work. Involve as many of the team as possible.

Make the most of the space around (use walls or large tables, with flip chart paper and sticky notes), or use an online tool, like Jamboard or Mural, to facilitate a virtual session.

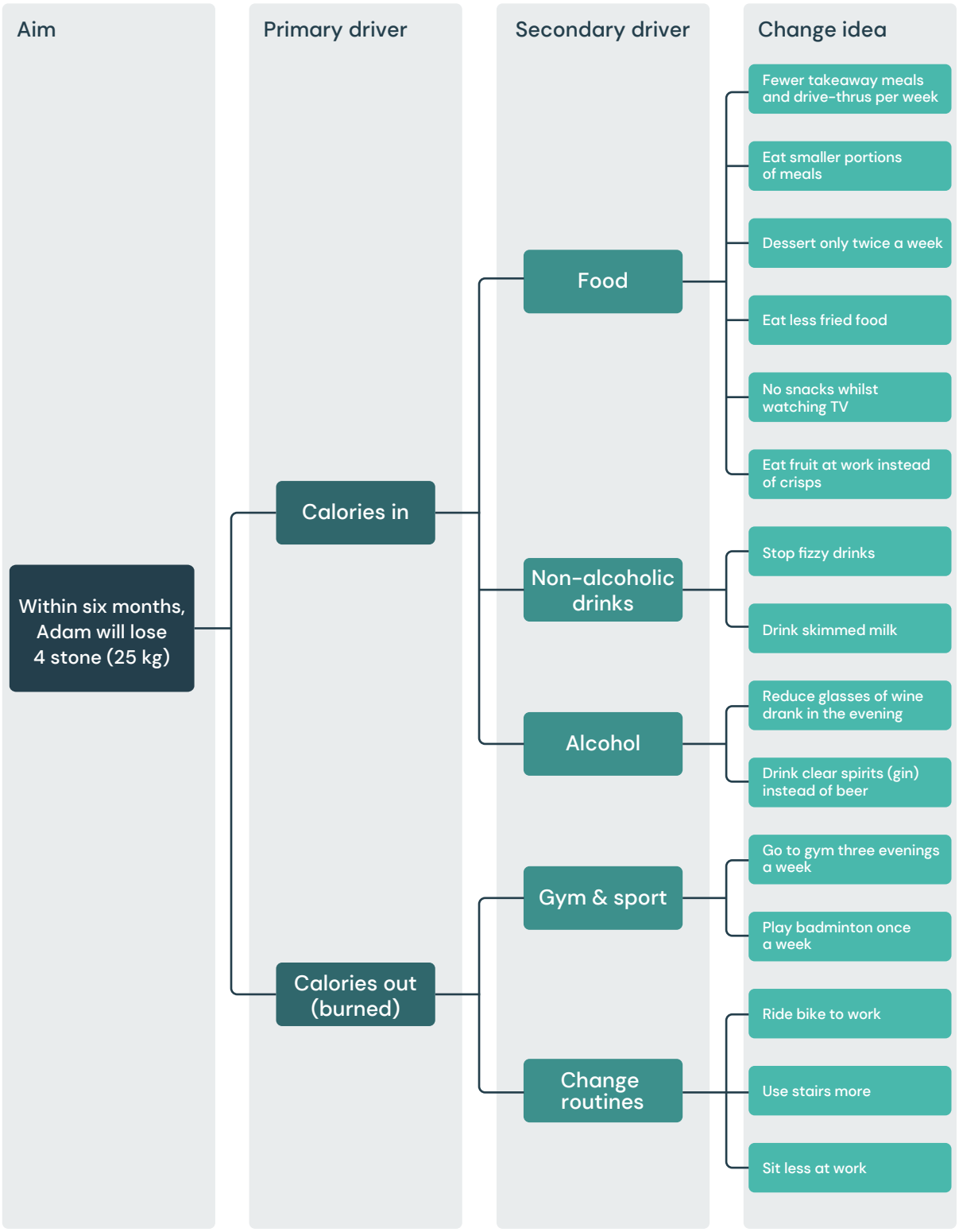
Some people prefer to start from the right, and work towards their SMART aim: i.e. write down all the change ideas, group these into secondary drivers and then group these to produce primary drivers. Going from right to left answers the question of 'why', e.g. 'why should I test this idea?' It links it directly to achieving the aim. Others will work from their aim, list the primary drivers and work from there. Going from left to right answers the question of 'how' they will achieve the aim.

Further detail on how to coach a driver diagram can be found on page 93.



Driver diagram

A simple example of a plan to lose weight



STAGE 5

Small-Scale Testing

By the end of Stage 5, you will:

- Understand how to use Plan-Do-Study-Act cycles to test your change ideas.

Plan-Do-Study-Act Cycles

After the improvement team has answered the three questions from the Model for Improvement, the next step is to test change ideas. The Model for Improvement uses Plan-Do-Study-Act (PDSA) cycles to test changes on a small scale.

Each change idea should be tested individually, allowing time to collect data before, during and after each test, to determine whether an improvement has been made. Different ideas are often tried successively via different PDSA cycles in order to achieve your desired outcome.

PDSA cycles are simple and easy to follow.

The end result of a PDSA cycle will be to either i) adopt the change; ii) adapt the change and do another PDSA; or iii) abandon the change and do another PDSA.

Plan	• Develop a plan to test the change • State the objective of the test • Make a prediction about what you think will happen • Think Who? What? When? Where? What data?
Do	• Try out the test on a small scale • Document problems and unexpected observations • Complete the test.
Study	• Set aside time to analyse the data • Compare the data to your predictions • Summarise and reflect on what was learned.
Act	• Refine the change, based on what was learned from the test • Determine what modifications should be made • Prepare a plan for the next test.

Principles of PDSA

The concept of Plan-Do-Study-Act cycles is relatively simple. However, in practice PDSA cycles can become very complex to use. Below are some helpful guiding principles of PDSA that you should consider when applying PDSA in practice. Page 216 outlines in detail the complexities that teams may face in using PDSA.

Feature of PDSA	Description of feature	Questions to ask yourself
Iterative cycles	To achieve an iterative approach, multiple PDSA cycles must occur. Lessons learned from one cycle link and inform cycles that follow. Dependent on the knowledge gained from a PDSA cycle, the following cycle may seek to modify, expand, adopt or abandon a change that was tested.	• Are we going to test multiple PDSA cycles? • How will we link cycles to one another? (i.e. the 'act' stage informing the 'plan' stage of the next cycle)
Prediction-based test of change	A prediction of the outcome of a change is developed in the 'plan' stage of a cycle. This change is then tested and results are compared with the prediction.	• Will we make an explicit prediction for each change? • How will we ensure we reflect as a team on the outcome vs prediction?
Small-scale testing	As certainty of success of a test of change is not guaranteed, PDSAs start small in scale and build in scale as confidence grows. This allows the change to be adapted according to feedback, minimises risk and facilitates rapid change and learning.	• How do we test our ideas on the smallest possible scale? • How do we test our ideas as quickly as possible? • How do we use PDSA 'ramps' to refine and adapt an idea? • Will we 'scale up' using sequential cycles?
Use of data over time	Data over time increases understanding regarding the variation inherent in a complex healthcare system. Use of data over time is necessary to understand the impact of a change.	• How will we collect and plot data over time? • Will we use statistics to test the effect of changes and/or understand variation?
Documentation	Documentation is crucial to support local learning and transferability of learning to other settings.	• How do we thoroughly document the application of PDSA method? • Will we record each stage of the PDSA cycles?

Adapted from Taylor et al (2014)[13]

13 Taylor, M. J., McNicholas C., Nicolay C. et al (2014). Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. *BMJ Quality & Safety.*

PDSA Plan Template

Act
Adapt, adopt, or abandon?
More testing needed?
Start next test cycle.

Plan
Who, what, where, when.
Prediction about what you think will happen.

Study
Analyse data,
compare to predictions
summarise.

Do
Carry out the plan,
document problems,
record new ideas.

STAGE 6

Sustain

By the end of Stage 6, you will:

- Know the difference between technical and adaptive change
- Understand strategies to get people on board with improvement work
- Learn how to sustain improvements and share learnings after the QI work has ended.

The Human Side of Change

We all know and appreciate that change impacts people and people impact change. To what extent and how positive this is depends on the local context, the people involved, and the change(s) you plan to introduce. Here we cover some simple techniques and concepts that can support improvement work. This includes the 'who' and the 'why' aspects of making a change, as opposed to the 'what' and the 'how', which has been covered in previous sections.

We have spoken about the change bus when discussing context. It is also a helpful analogy when considering the human side of change.

Just because the improvement team is enthusiastic about the work does not mean that others will be! You may need to influence and persuade others to 'get on the change bus' on your QI journey. Some helpful strategies to do this include:

- Considering the adaptive barriers to change
- Using storytelling to explain the rationale for the project (who is it impacting, what are their experiences, why is this important?)
- Ensuring you *collaborate* with teams and seek their input and guidance
- Creating an elevator pitch
- Planning for resistance to change.

Technical and adaptive change

Harvard Professor Ronald Heifetz identifies two types of challenges in change – *adaptive* and *technical*.

- *Technical change* is defined as something that can be solved by the knowledge of experts. The problem, solution, and implementation are clear – we just need to get on with putting the solutions in place.
- *Adaptive change* requires new learning. Solutions come from the collective intelligence of the employees at all levels. So, together they learn their way toward solutions.

	Problem	Solution	Who	Type of work
Technical	Clear	Clear	Expert (e.g. frontline staff)	Quick fix
Adaptive	Sometimes not clear	Requires learning	Wide stakeholders	Experiment to make progress

Source: Heifetz et al (2009)[14]

Adaptive change therefore relies on strong working relationships, a supportive culture for change and good team and group dynamics in order to suceed. Examples of adaptive barriers to change are outlined below.

Adaptive barriers to change

- Power struggles
- Lack of buy-in
- Few or no results early on
- Need to adapt to different contexts
- Too much change at once
- Maintaining motivation
- Competing demands on people's time
- Opposition within ourselves to change
- Misaligned incentives
- Fear of failure, rejection, job loss
- Confusing strategies
- Lack of leadership
- One-way communication
- Poor workforce planning
- Stifling innovation
- Playing it safe
- Poor project management
- Undervaluing people
- Inhibiting environment
- Extrinsic motivation only

Source: Hilton and Anderson (2018)[15]

Extrinsic and intrinsic motivation

Extrinsic motivation is motivation to take part in an activity based on external reward – for example for praise, approval, or to receive an award or payment. It differs from intrinsic motivation, which describes undertaking an activity for its own sake, because the individual finds it rewarding.

It can be helpful to consider whether any of these barriers may exist in your QI work. Upon identification, the improvement team may then be able to develop a strategy to tackle the barrier to change. There is more detail on this topic in the chapter Human Side of Change (page 197).

14 Heifetz R. A., Linsky M., and Grashow A. (2009). The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World. *Harvard Business Press*.

15 Hilton, K. and Anderson, A. (2018). IHI Psychology of Change Framework to Advance and Sustain Improvement. www.ihi.org/resources/Pages/IHIWhitePapers/IHI-Psychology-of-Change-Framework.aspx

Hearts and minds

People are central to improvement. In order to influence improvement, we need people on board our change bus. One of the easiest things we can do to ensure people not only get on the bus but stay on the bus is to communicate effectively with them, and that means winning over hearts and minds.

Some people are more driven by logic (mind) and others are more driven by emotions (hearts). Most people will be driven by both. So when trying to get people on board, we need to make both emotional and intellectual appeals to persuade people to commit to improvement work. Try to incorporate both of these elements into your pitches and when communicating with your stakeholders.

Hearts

The emotion about why the changes are needed

Win hearts over using storytelling techniques to engage curiosity, emotions and imagination.

Minds

The logic about why the changes are needed

Win minds over by stating facts, using data to evidence the need for a change, helping people to understand.

The power of storytelling

Telling the story of one patient's experience of care can memorably illustrate improvements or problems in a care pathway. Similarly, sharing a staff member's experiences, feelings and emotions can be a powerful way to engage with those who are non-committal about the improvement work.[16] If you are working with patients, you should get in touch with the team responsible for patient experience in your organisation. They will be able to advise you on the best approach.

Top tips for telling impactful and engaging stories about your work

As you plan the communications around your improvement work, it is helpful to consider whether there are any stories about the people affected that might help you engage others. Here are some practical tips for identifying and packaging stories:

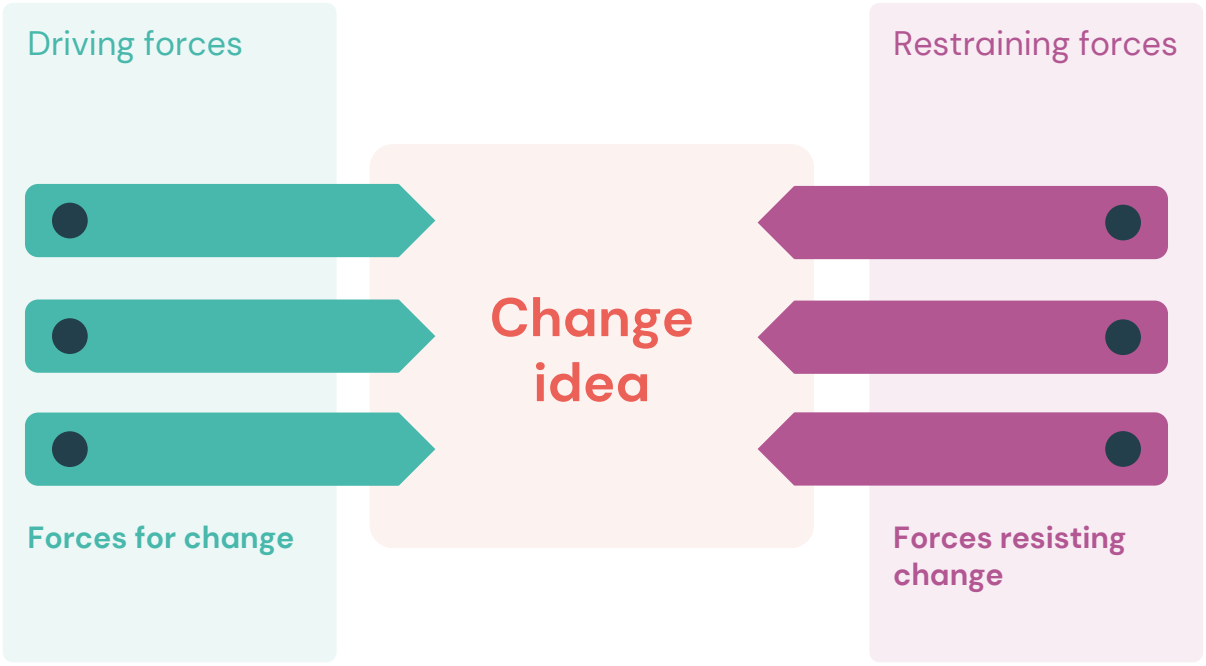
- Choose a story that conveys a message that you need to get across, and make sure the circumstances are meaningful or relevant to the people you want to influence.
- Pick out only the most relevant points that carry the story. Good storytelling depends on your ability to leave out any unnecessary detail.
- Include a good opening that grabs attention and a strong ending. If you find the outcome of the story engaging, it's more likely others will too.
- Ensure the people involved in your story come to life by using a few descriptive details that help people visualise or empathise with them.
- Make sure you discuss with those involved how you will be representing them, by name or anonymously, and agree with them what you will share and how the information will be used. If you are involving and identifying patients, you will need to record their signed consent. The team responsible for patient experience in your organisation should be able to help with this.

16 The Health Foundation (2015). Using storytelling in health care improvement. www.health.org.uk/sites/default/files/Using-storytelling-in-health-care-improvement.pdf

Force field analysis

Force field analysis[17] is a tool used in QI for planning when and where to act to achieve a change. The analysis includes creating a map of the forces helping and hindering the change, and then prioritising those forces so the change can be most effectively achieved. This tool builds on the concept of the 'change bus' and context map on page 24. Here we are focusing more on a specific change to implement, rather than the context of the improvement work as a whole.

Lewin's force field analysis



There are two parts to the 'force field':

- On the left are the driving forces (or forces for change)
- On the right are the restraining forces (those resisting the change). We can identify these and ultimately lower them in order to progress the change. This lowers the total energy needed to achieve the change.

There will be a variety of different forces on the left and right. In this model we 'weight' these using a scoring system from 1 (smallest forces) to 5 (largest forces). This helps us to 'weigh up' the total to see whether the change will come to fruition.

17 Lewin, K. (1951). *Field Theory in Social Science*. Harper and Row.

Example

In this example we are aiming to introduce a wound care collaborative within a borough of London. We have three driving forces (on the left-hand side), and three restraining forces (on the right-hand side). Each of these forces is weighted (or scored) out of 5. This weighting helps to identify the largest enablers and barriers to change.

The total of the scores determines the total driving force and total restraining force to see if this change is viable as things stand. In this example the driving force is larger than the restraining force and therefore the change is likely to occur. If this weren't the case, then we would need to think about how we can mitigate barriers to change. This commonly relates to the human side of change.

Sustain and spread

It's great to see results from our improvement efforts, but it's important that these changes sustain, even after the focus or improvement work has ended. When designing changes, the improvement team should think about:

- How will this be maintained after the work has finished?
- What can we do to embed this into our normal working routines?
- Do we need any ongoing governance for the improvement e.g. on a monthly agenda at a meeting?

Effective use of quality control methods can be helpful in sustaining improvements and new ways of working. Defining standards (e.g. via a standard operating procedure (SOP) or a process map) can be useful in clarifying the new methods and ways of working. With an SOP in place, it can be easier to then check and assure that people are adhering to the process standards expected. Where deviation exists you may need to deliver training, review the standard to determine its continued suitability or use QI methods to improve.

Whether the improvement work had the desired outcomes or not, you will have learnt things through the process – for example, what does or does not work when it comes to your changes. It's important to share the learning with colleagues so that we can learn from each other's successes and mistakes.

A good way to do this is by completing a QI poster, which can pull together the goals of your QI work and show the learning.

If your improvement efforts were successful, a QI poster can help to make sure that similar teams or services can also reap the benefits. Equally if your QI work has not been successful, it's important to make sure similar teams and services can understand the reasons why.

This completes the Quality Improvement refresher.

Consider these questions when coming to the end of your improvement work:

- What did you learn from this improvement work/from your PDSAs?
- What are the three key messages you would share?
- Would any other services or teams benefit from knowing your story/ learning?
- Could the improvements you have seen be implemented anywhere else?

Self-Reflection

"It is not sufficient simply to have an experience in order to learn. Without reflecting upon this experience it may quickly be forgotten, or its learning potential lost. It is from the feelings and thoughts emerging from this reflection that generalisations or concepts can be generated and it is generalisations that allow new situations to be tackled effectively."

Gibbs (1988)[18]

Authors
Sidney Beech, **Jennifer Cotter** and **Hannah Pearson**

This section outlines some useful tools that you may wish to use to facilitate reflection on your experiences as a new Quality Coach.

18 Gibbs, G. (1988). *Learning by doing: a guide to teaching and learning methods*. Further Education Unit, Oxford Polytechnic.

By the end of this section, you will:

- Understand what we mean by self-reflection, and models to help you reflect
- Know how 'stinky fish' can help you and others with challenges
- Understand how to recognise factors that impact your resilience as a coach.

What Is Self-Reflection?

Throughout the Quality Coach Development Programme, you will be asked to think and write reflectively. Sometimes what you learn from an experience, activity or meeting isn't immediately obvious. Reflection provides you with an opportunity to recall what happened and turn your insights into meaningful actions.

Reflection can be defined[19] as:

- the evaluation of your first-hand experience of an event, process or activity, followed by
- an analysis of what went well and what didn't go well, and why that was the case, followed by
- learning from the experience to improve or hone your performance if a similar situation arises again.

There are many models that you can use to structure your reflection. Each model approaches reflection in a slightly different way; however, broadly speaking, they have the same purpose. The below tables outlines reflective tools that will be useful for you throughout the programme and when to use:

Tool	Use	
Gibbs' reflective cycle	Reflect on the programme as a whole and various challenges or successes you face throughout.	page 57
SWOT	Reflect on your QI Coaching.	page 59
Stinky Fish	Reflect on your learning and any concerns or anxieties you may have.	page 60
Schon Reflection in practice	Reflect on your QI Coaching.	page 61
CIA	Reflect on anxieties or issues in relation to coaching or the programme.	page 63
i-Resilience	Reflect on challenges you may have as a Quality Coach.	page 64

19 University of Sheffield. Reflective practice. https://www.sheffield.ac.uk/academic-skills/study-skills-online/reflective-practice

Gibbs' Reflective Cycle

There are many models that you can use to structure your reflection. Each model approaches reflection in a slightly different way; however, broadly speaking, they have the same purpose. For this programme, we have decided to focus on Gibbs' reflective learning cycle.

Gibbs' reflective learning cycle[20] is a useful approach for structuring reflection. In this model, you begin with an outline of the experience that you are reflecting on. You should then focus on your feelings about the experience, both during it and afterwards. The next step involves an evaluation of the experience – what was good or bad about it from your point of view? You will use this evaluation to analyse the situation and try to make sense of it. The analysis should result in a conclusion about what other actions (if any) you could have taken to reach a different outcome. The final stage involves developing an action plan of steps which you can take the next time you find yourself in a similar situation.

A template to support the use of Gibbs' reflective cycle is shown overleaf.

You may wish to use an alternative model or your own approach to reflection. The most important thing is finding an approach that works for you and using this to reflect wherever appropriate. Some other tools for reflection are outlined on the following pages.

20 Gibbs, G. (1988). *Learning by doing: a guide to teaching and learning methods.* Further Education Unit, Oxford Polytechnic.

Template for reflection using Gibbs' reflective learning cycle:

Description

Describe the experience or event to set the scene and give context.

Feelings

What were you thinking and feeling before, during and after the experience?

Evaluation

What was 'good' and 'bad' about the experience? Describe key elements that went particularly well, as well as the things that did not go well or did not work.

Analysis

Explain *why* the experience was good/bad. Think about your roles and others' roles in this experience.

Conclusions (general)

What can be concluded, in a general sense, from these experiences and the analyses?

Conclusions (specific)

What can be concluded, on a personal level, about this specific situation or your ways of working?

Action plan

What will you do differently in this type of situation next time?
What steps will you take, based on what you have learned?

SWOT analysis

Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis is a common tool used in healthcare. It can be useful in supporting an individual to reflect on their role as a coach.

Strengths

- What do I do well as a coach? (Consider the many facets of coaching QI and the many concepts covered in the programme)
- What skills do I bring from my non-QI role that make me a good QI coach?
- What experiences do I have that help me as a coach?

Weaknesses

- Where do I need to improve?
- What concepts do I find the most challenging from the programme?

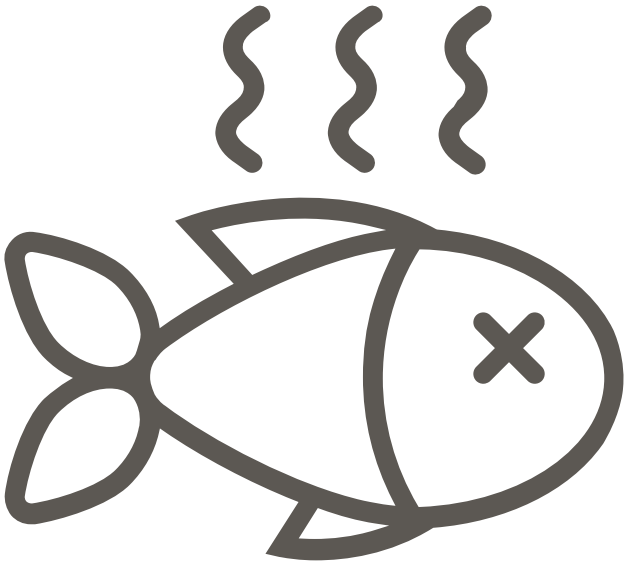
Opportunities

- What are my goals as a coach?
- Who can I ask for help?
- What resources or other methods of support do I have available to me?

Threats

- What obstacles do I face?
- What am I most unsure of?

Stinky Fish



The stinky fish is a metaphor for 'that thing that you carry around but don't like to talk about; but the longer you hide it, the stinkier it gets.' A stinky fish could be that you find yourself going along with a group and pretending to understand something to a point where you feel you can no longer flag it up and say you don't understand. This could be as simple as not knowing an acronym or word, through to completely disagreeing with an approach, but not feeling brave enough to air your concerns.

By putting stinky fish (fears and anxieties) on the table, teams can begin to relate to each other, become more comfortable sharing, and identify a clear area for development and learning. Being honest about fears, concerns, anxieties, and questions helps to build better working relationships within your team.

As a coach, you may use the stinky fish tool to support teams to discuss their individual challenges. This may not be appropriate at the start of QI work, as the use of the tool requires a psychologically safe environment. Trust in one another is needed to enable this level of honesty and vulnerability. A good tip is to role model by joining in the activity and going first.

As well as using this with teams, you may also find this tool useful for self-reflection and discussions on a 1:1 basis (such as with your mentor). What are you unsure of around QI coaching that you should ask, but have not yet managed to? What help do you need that you haven't yet asked for? Are there concepts around QI that you find confusing that you need to surface with someone?

Reflection in practice: Schon's reflective tool

Schon (1983)[21] promoted the idea of reflecting before, during and after any activity, in order to maximise the gain from any learning experience. He coined terms that have endured:

- **Reflection before action:** Predicting outcomes, seeing challenges, preparing for the experience
- **Reflection in action:** What is happening? Is this what I expected? Can I make this more successful? What am I learning?
- **Reflection on action:** How did it go? What was good? How could I have done things differently? What have I learned?

You are encouraged to keep some form of reflection in action, in support of your continued development as a new Quality Coach. It could be as simple as keeping a simple account of your coaching sessions with teams using the template below, based on Schon.

In addition to the Schon template, the CIA model on page 63 (what can you control, what might you influence and what do you need to accept?) can be useful in supporting your development as a coach. Key insights from your reflection should be discussed with your mentor.

Reflection in practice record for QI coaching

The main instances when reflection in practice could be beneficial are:

- When meeting a team to support them with a key task as a Quality Coach, for example:
  - Contracting as a coach
  - Helping a team to apply a QI tool e.g. fishbone diagrams, driver diagrams, SMART aims
  - Supporting teams to measure for improvement
  - Supporting a team to share and showcase their work
- Teachback and/or All Teach, All Learn
- Coaching circle as a client
- Championing QI at a forum (e.g. coach forum, divisional meeting or a conference).

21 Schon, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books.

Template for reflection in practice

Reflection before action

What are your predictions about how the coaching session will go?
What challenges might you experience in the session?
What preparation is required by you and others for the session?
What help do you think you might need before, during and after the session?

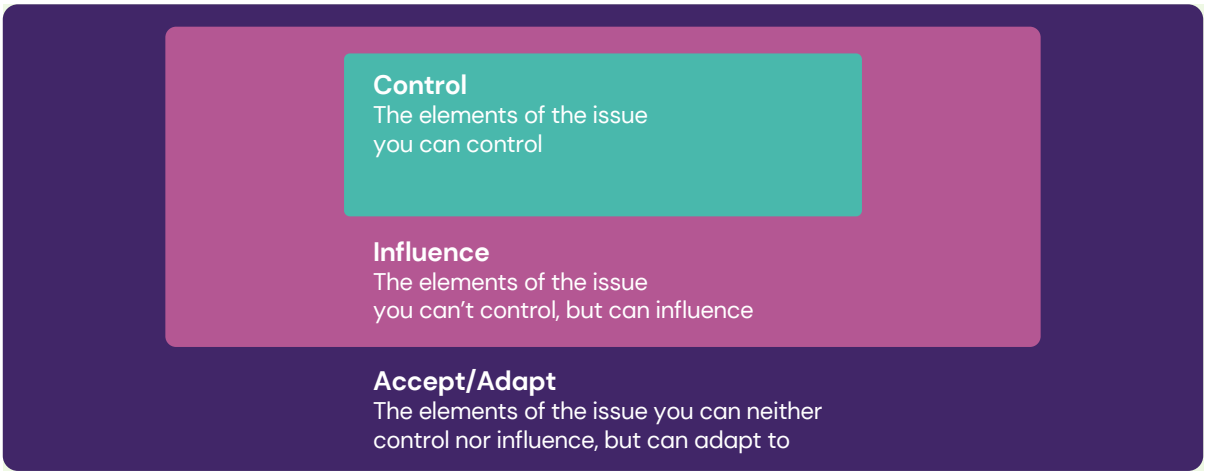
Reflection in action

What is happening? Is this expected?
How can you make this session more successful?
What is your learning?

Reflection after action

What went well?
How could you have done things differently?
What have you learned?

Thinking About What You Can Control



The Control-Influence-Adapt (CIA) model was created by Thompson and Thompson in 2008.[22] CIA is a time management and stress management tool that identifies the three distinct ways you can respond to challenges.

When you understand these three potential responses, you can put problems into perspective more easily and get a sense of what you can and can't accomplish. This enables you to focus your efforts where they'll have the most impact, and to reduce stress.

Reduce overwhelm by taking control

Identify the issues or elements of the situation that you can control. You may be able to allocate resources to solving a problem, for example. Or, if you're juggling several tasks, you could delegate some or seek to extend your deadlines.

Even in situations where circumstances really seem to conspire against you, you can still control your own emotions and behaviour. For example, you may not be able to control a dangerous driver in the heat of the moment, but you can avoid having road rage!

Use your influence to feel less overwhelmed

Even when you can't control your circumstances, you may still be able to influence them. Maybe you have specialised knowledge that can help others to solve a particular problem, for example. Influencing a situation doesn't mean you have to take charge. It can simply mean knowing who to turn to for help or advice. But be sure to use your influential power positively. Avoid using it to manipulate people or to serve your own needs, as this may damage your reputation and cause mistrust.

Accept or adapt to the situation

Sometimes things happen that you really can't control or influence, like funding and political decisions. When that happens, saying "I accept this" isn't a sign that you're ineffective, passive or lazy. It's a sign of resilience, maturity and intelligence. It shows that you understand your limitations, and that you can prioritise and make practical decisions.

Many users of the CIA model prefer the term 'adapt' instead of 'accept'. You may not be able to change the situation, but you still have the power to change your response to it. Doing this shows that you are able to move past problems rather than get stuck on them.

22 Thompson, S. and Thompson, N. (2008). *The Critically Reflective Practitioner*. Palgrave.

Taking Care of Yourself as a Coach

The i-Resilience Model

Resilience isn't something you either have or don't have. It depends on the circumstances and how you manage and deal with different challenges and situations. You may experience challenges in your role as a Quality Coach. It's important to acknowledge burnout and not commit to too much QI work, or stretch yourself too thin.

Low resilience can lead to:

- Loss of self confidence
- Difficulty making decisions
- A changed outlook (optimism → pessimism)
- Low creativity
- Difficulty managing your emotions
- Social isolation/lower social contact.

Knowing what kinds of things stress you and what core assumptions you have about yourself can help you access your strengths more quickly and work on your weaknesses more deliberately. For example, you might be comfortable handling negative comments from a colleague, but find it really difficult coping with rejection for a promotion.

The i-resilience tool, developed by Robertson Cooper,[23] is helpful for visualising and conceptualising the key features of resilience, and helps you understand your strengths and weaknesses within the model.

23 www.robertsoncooper.com

1 **Confidence.** An important element of feeling confident is the frequency of positive and negative emotions that you experience. Managing your emotions and taking time to notice and cultivate the positive can have a very beneficial impact and give you a greater sense of control. As a coach this may mean coaching outside your specialty or area of expertise, attending further training or even delivering training yourself (there's no better way to learn!).

2 **Social support.** Constantly coping on your own isn't healthy or helpful. We all need help sometimes and so it's important to have good relationships at work and at home. Therefore a good strategy to support resilience is to nurture relations and invest time in others. As a coach this will mean seeking out your peers (other coaches, improvers) and creating your own support network. Try to maintain open and frequent communication with your network.

3 **Adaptability.** Accepting the fact that lots of things are out of our control (especially in healthcare) is part of our adaptability. Moving on and recovering from unexpected outcomes can mean you don't stay angry or frustrated with situations for too long. As a coach this means accepting not everything goes to plan; things change, timelines shift, and this is OK. It also means thinking about your social support and who might help with a changing situation.

4 **Purposefulness.** Reminding yourself why you do this – what motivated you to work in healthcare, to do QI, to be a coach? It's likely because you are driven to improve care, passionate about staff development and supporting staff. Purposefulness means having a clear sense of purpose, clear values, drive and direction help individuals to persist and achieve in the face of setbacks.

Creating a support network

One of the best methods of managing and working with the challenges you face as a Quality Coach is to build a support network around you. This network is often highly informal and specific to you. As you develop relationships with people as part of this programme, you will find that you start to slowly form a network around you. Please find time to connect with people you trust. Talk about your challenges, frustrations and uncertainties.

Your Personal Learning Objectives

Throughout the programme you will be trained on numerous skills, tools and techniques that will equip you to coach teams and individuals on quality improvement. It is helpful to be clear exactly what it is that you personally would like to achieve during this time.

Therefore, please use the space below to record up to three personal learning objectives which you would like to achieve over the next six months.

Objective 1:

Objective 2:

Objective 3:

You will have the opportunity to work with your mentor on a one-to-one basis to help you achieve these objectives. Please make the most of this opportunity.

03

Coaching and the Foundations of Improvement

This chapter focuses on

What Is Quality Improvement and When Do We Use It?

'Quality Improvement involves the use of a systematic and coordinated approach to solving a problem using specific methods and tools with the aim of bringing about a measurable improvement within a health care setting.'

The Health Foundation, 2011[24]

Authors
Sidney Beech, **Bridget Browne**, **Samantha Machen**, **Hannah Pearson** and **Jem Ramazanoglu**

24 The Health Foundation (2011). Quality improvement made simple. www.health.org.uk/publications/quality-improvement-made-simple

By the end of this section, you will:

- Understand that there are many ways to improve quality, and how to determine when QI is the right approach – and when it isn't
- Learn why it's important to support frontline workers and patients in QI
- Know how we can better understand systems, variation and human behaviour to support effective change.

Principles of Quality Improvement

We propose six key principles that together make QI distinct from other improvement approaches. These are shown below. As a Quality Coach you may work as a gatekeeper of QI work. This often involves determining when QI is appropriate, or when a different approach would be better.

People

1 **Grounded in construction of experience (conceptualistic)**
This principle states that an individual's observations are informed primarily by their past experiences. Improvers use experience to theorise what they might do to address the problem at hand.

2 **Driven by frontline staff and patients**
Those at the 'sharp end' of care – frontline staff and patients – are the most experienced in the daily experience of healthcare. They know what works, what doesn't, and the problems within their service.

3 **Focus is on learning**
A key part of improvement is learning. You need to be adaptable and flexible (and a bit resilient), in order to learn what works and what doesn't. By learning, you can rapidly refine something before you spread it and scale up.

Process

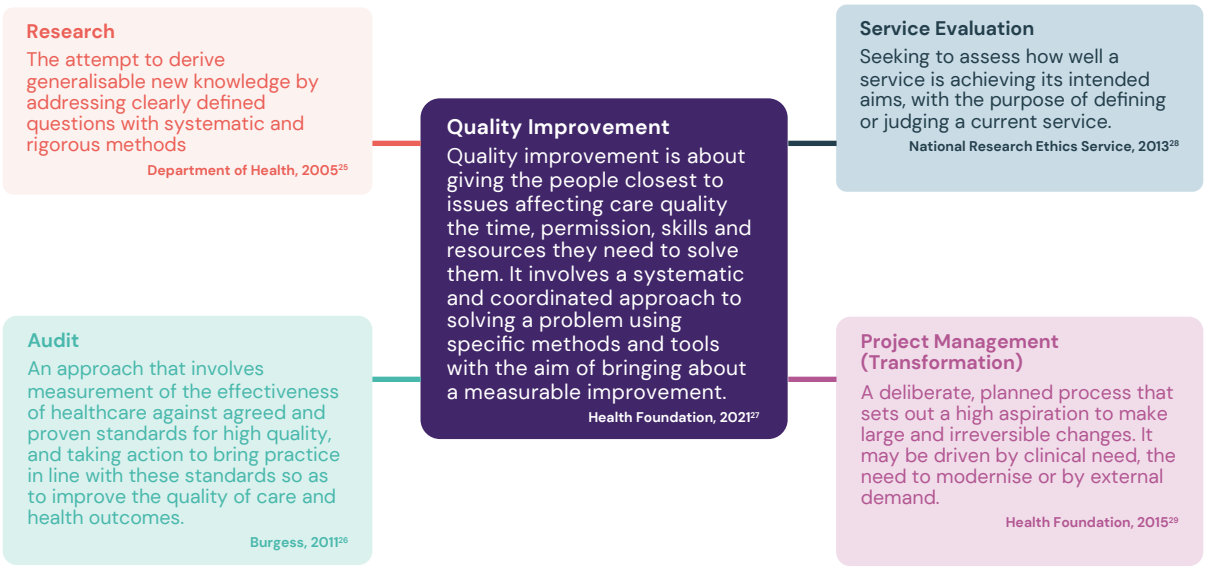
4 **Testing a theory (pragmatic)**
As mentioned in the first principle, improvers use their experience to deduce what might work. They use the information available to them (mostly from experience) to make a hypothesis and prediction. From this, they take action, testing the theory to see what works in practice. We always begin therefore with a hypothesis that we need to test, rather than a change to be implemented.

5 **Systematic and iterative**
We use a systematic approach to testing our hypothesis. In QI this involves an iterative approach, testing change on a small scale, to determine what works and what doesn't. Changes are only implemented at scale when proven to be effective. It's important to remember that the local context or setting has a significant impact on the success of QI. Just because one idea works somewhere, doesn't mean success is guaranteed everywhere. We often need to adapt things.

6 **Data-driven**
Data is king in QI. We use measurement, information and feedback to help us understand the effects of our change(s). Is our hypothesis correct? Without this, we're making guesses, assumptions and working blindly. Tools like SPC help us determine if the impact of our work is statistically significant.

Improvement methods

QI is one of several improvement methods with which you may be familiar. They are all suited to certain circumstances. The diagram below outlines the definitions of five common approaches to improvement. Having a better understanding of the approaches available can help you to understand whether QI is best suited to the problem at hand.



Improvement methods

QI methods are by nature 'exploratory' and this has certain implications:

- Developing solutions *can* take longer than 'usual methods'. This is particularly true when you are working in collaboration with your colleagues and patients – given you will need to set aside time to work together. This may include brainstorming sessions, focus groups or similar.
- Testing is not guaranteed to result in success. Often ideas don't pan out and things don't go as planned. Failure is a normal part of the process.
- The people involved in QI work will need to have some basic awareness and understanding of QI concepts in order to be able to apply them. This will require some investment in teaching, training or coaching.

25 Department of Health (2005). Research Governance Framework for Health and Social Care. Second edition. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/139565/dh_4122427.pdf

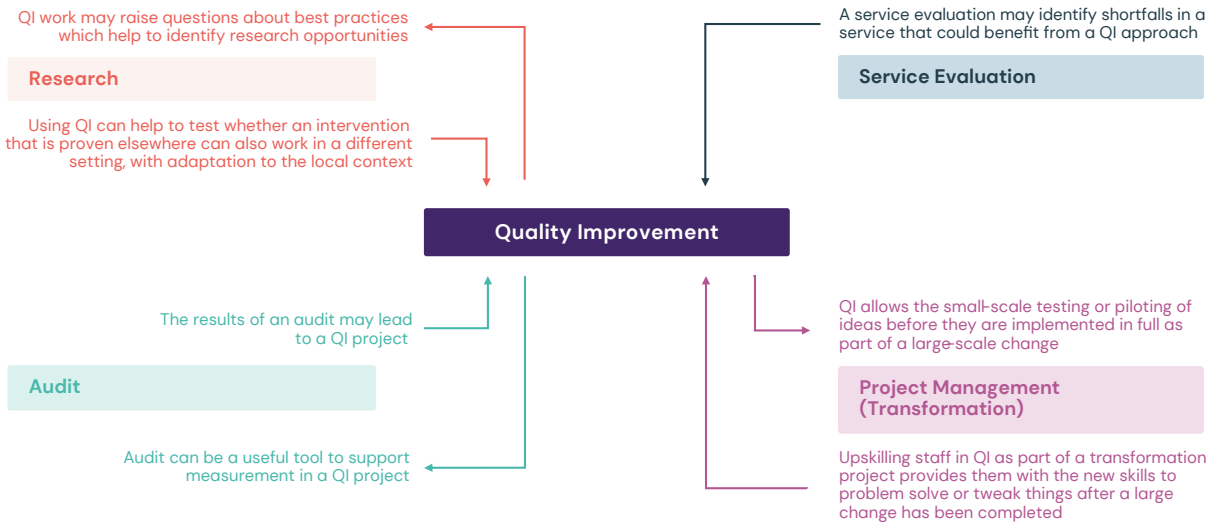
26 Burgess, R. and Moorhead, J. (2011). *New Principles of Best Practice in Clinical Audit.* CRC Press.

27 The Health Foundation (2021). Quality Improvement Made Simple. www.health.org.uk/sites/default/files/QualityImprovementMadeSimple.pdf

28 National Research Ethics Service (2013). Defining research.

29 The Health Foundation (2015). Transformational Change in NHS Providers. Supplement. www.health.org.uk/sites/default/files/TransofrmationalChangeInNHSProviders_CCsupplement.pdf

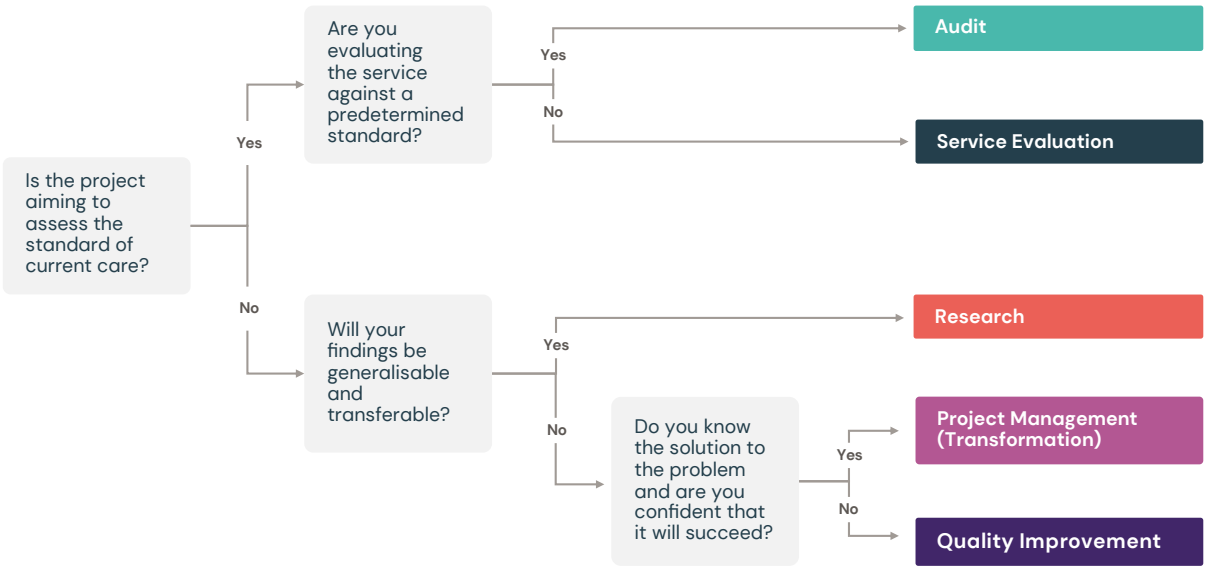
The diagram below outlines how QI can interact with other improvement approaches.



Choosing a QI approach over other methods

Many different 'improvement' approaches exist in healthcare. Knowing which one is right for any given scenario is a crucial skill for an experienced Quality Coach. It may take time to understand the relationships, similarities and differences between QI and other improvement approaches. The best way to learn about how these approaches work in your organisation is to speak with those leading on the different areas, to get involved in the work and to read up on their reports and materials.

Alongside QI, there are four other improvement approaches that many organisations will use. The diagram below provides a means to assess (or triage) whether QI is best suited to the problem at hand. This is a simplistic summary, albeit still useful in the majority of cases that you triage. There will undoubtedly be nuances and deviations from this general approach.



QI isn't the answer to everything…

Whilst adopting a QI approach can often be desirable, there are some conditions which make QI methods less effective, or an overkill. We generally don't use QI if:

- There is already an agreed plan for implementation (such as an action plan)
- It is a planned project (see 'Planned approach vs QI approach' for more details)
- There is a significant time pressure to complete a particular task, for example CQC or regulatory requirement.

If one or more of these conditions is present, then it is likely that adopting a QI approach will be unhelpful. It may be more useful to select a few relevant QI techniques to apply to support the work.

The 'Know-do' Gap

Research has helped to greatly expand and develop our understanding of medicine and healthcare over the last 100+ years.

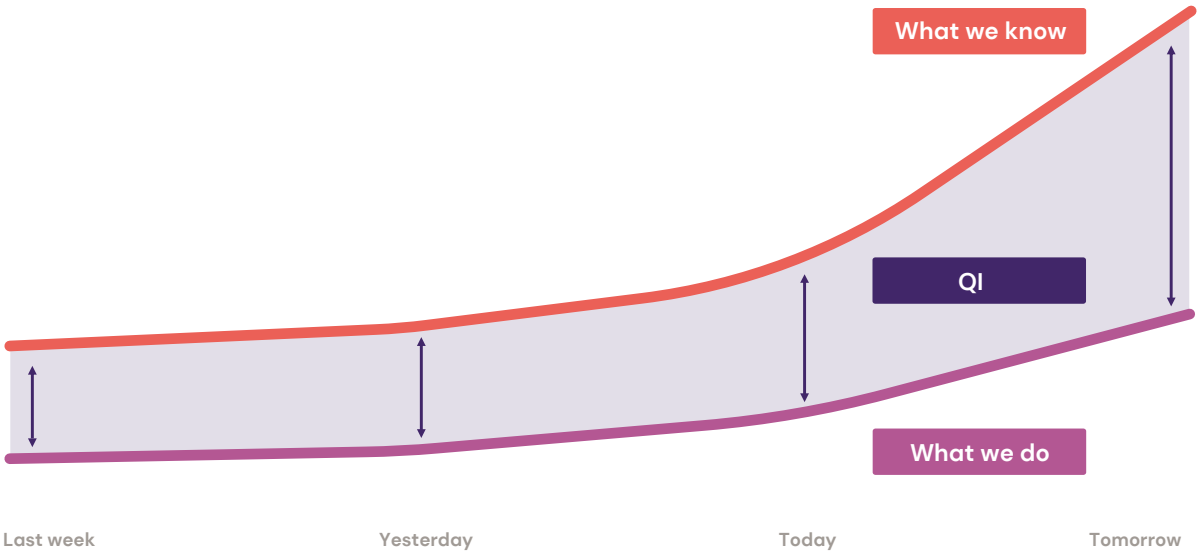
In 1950, it was estimated that our knowledge of medicine was growing slowly. It would take about 50 years for our knowledge of medicine to double, based on the then-approach to research and development.

In 1980, the length of time it would take for our knowledge of medicine to double went down to seven years, as more money and focus went into research.

In 2000, the length of time it would take for our knowledge of medicine to double went down again to just three and a half years.

So in the time between a nurse, doctor or Allied Health Professional (AHP) starting their degree programme and graduating, the wider knowledge of medicine had doubled!

Now it takes just 73 days for our knowledge of medicine to double.



Lines are not to scale, for visual represtation only. Source: Densen (2011)[30] and Institute for Healthcare Improvement[31]

What does this mean for quality improvement? What we know is continually growing – through research – shown in orange in the image above. Through evaluations and audits we can assess what we do – shown in pink in the image above.

QI is a key mechanism to help us bridge what we know and what we do – the know-do gap. This is shown by the purple arrows.

This gap is ever increasing and so the conventional approach to change (where 'the few' are in control) won't work. Instead, we need a distributed approach where the power to change is in all our hands. QI is a proven strategy to support bottom-up improvement.

30 Densen, P. (2011). Challenges and opportunities facing medical education. Transactions of the American Clinical and Climatological Association.

31 Institute for Healthcare Improvement via https://x.com/HelenBevan/status/1599835285113950208?s=20

Planned Approach vs QI Approach

Change can broadly be classified into two distinct approaches: planned and iterative. A summary of these two approaches is summarised in the table below.

Planned approaches are mostly used in conventional project management and through action plans. In healthcare, this may involve remedial work following an inspection, action plans in the face of an incident or near miss, or the implementation of a system. Planned projects are also often used for IT and Estates work.

QI uses an iterative approach. The focus is on learning what ideas work in the setting, using data to guide your decision-making.

Approach	Planned	Iterative
Problem	Well-scoped out and clear problem.	Not always clear.
Solution	Clear implementation plan of established and well-tested solutions or ideas.	Unclear, requires learning.
Planning	Work is planned in advance, with timelines, sequencing and responsibilities clearly defined.	Planning focuses on analysing the problem, idea development, measurement and testing.
Management of work	Focused on adherence to the plan or schedule, with a view to minimising any deviation from the plan.	Focused on adherence to the selected QI methodology. Adaptive, flexible approach to change is used.
Decision-making	Changes to plans are subject to approval via a formal mechanism.	Decisions are based on learning from previous tests and experience. Often no formal approval is required.
Project leadership	Project is often led and facilitated by a project manager, with actions and tasks delegated through a formal process.	Projects are led at a local level, with support provided by QI specialists and coaches. Tasks are managed collectively by the project team.
Governance and assurance	Formal governance, assurance and reporting is established at the initial stages of the project. Work status (e.g. using RAG for tasks) is documented at formal meetings.	Typically there is no formal reporting framework for QI work, which is often housed on a central repository (e.g. Life QI).
Measurement	KPIs may be used, however focus is on milestones and meeting deadlines.	Outcome, process and balancing measures are used to evaluate the impact of QI work. Data is plotted over time to visualise trends and shifts in data.

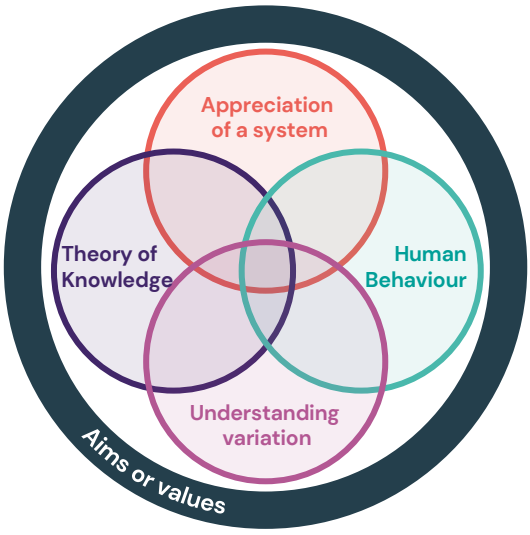
System of Profound Knowledge

Dr William Edwards Deming is considered by many to be the master of continuous improvement. He was a statistician, professor, author, lecturer and consultant who defined a theory of management and leadership called the System of Profound Knowledge, often referred to as the Lens of Profound Knowledge.[32]

The System of Profound Knowledge is a theory of management that provides a framework of thought and action for any leader wishing to transform or improve their team or organisation. It has four 'lenses' with which to view the world simultaneously. A coach does not have to be a master in all elements, but they should understand the basic elements of the system, the relationships between the different elements, and how this may influence improvement efforts.

"The system of profound knowledge provides a lens. It provides a new map of theory by which to understand and optimise our organisations."

Deming, Out of the Crisis (1992)



Source: Deming, 1992[33]

Appreciation of a system

Most of our services in healthcare result from a complex system of interaction between people, procedures and equipment. It is therefore vital to understand the properties of the system a team is working in.

A system is defined as an interdependent group of items, people or processes working together toward a common purpose.[34]

If we want to make improvements then we need to alter the system to achieve a new level of system performance.

32 The Deming Institute. Deming the man. https://deming.org/deming-the-man/

33 Deming, W. E. (1992). *Out of the Crisis*. The MIT Press.

34 Langley, G., Moen, R., Nolan, K. M., Nolan, T. W., Norman, C. L. and Provost, L. P. (2009). *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance*. Jossey-Bass Publishers.

Understanding variation

Understanding variation is a key part of our work as improvers. Everything we observe or measure varies, and we make decisions based on our interpretation of this variation.

Deming identified two types of variations within a system:

- **Common cause variations** – these are causes built into the system such as defects, errors, mistakes, waste and rework. In a stable system, common cause variation is predictable within certain limits
- **Special cause variation** – these causes are not part of the process all the time but arise because of specific events. This can be intentional (for example, a change in process) or unintentional (this may be a one-off event or when the system is out of control).

Separating variation into common cause or special cause helps to decide appropriate actions for that system or process.

We use data to understand variation and map this over time using run charts or statistical process control charts, where applicable. As a coach, it is important to be able to see and interpret variation, to help identify appropriate actions for that system.

Theory of knowledge

When we make a change in improvement, this is based on a prediction that if the change is made, improvement will result. Which means we have a theory of what will work or a 'theory of knowledge'.

This type of rational prediction requires knowledge of the current system, a theory of which changes may work, and a prediction of the potential results. The change is tested and then revised based on the comparison of prediction with actual observation or results. This new knowledge is then reflected in our new theory of what is needed to effect change. In improvement, we develop our theory of knowledge over time using Plan-Do-Study-Act (PDSA) cycles. You may see PDSA referred to as Deming Cycles.

A process of reflective learning is integrated in PDSA cycles that helps gather knowledge about the system, not simply data or information. PDSA provides a way to support a cycle of iterative tests of change and learning. This cycle is referred to as continuous improvement.

Human behaviour

The human side of change helps us to understand how people, as individuals, interact with each other and with the system. It helps us to predict how people may react to a specific change and how to gain commitment. Understanding human behaviour helps us to understand the motivations of people and why they act as they do.

Some knowledge of the psychology of change is essential to understand the human side of change. Deming understood the importance of accepting that people cannot all be managed in the same way. He also understood that people are primarily motivated by intrinsic needs, such as pride in workmanship and working with others to achieve common goals, in contrast to being motivated by monetary reward.

It is often said that improvement recognises we have bad systems, not bad people. Commitment to change is supported by sharing information and learning.

There is a useful guide from NHS England[35] to support structured discussions using the System of Profound Knowledge.

35 NHS England and NHS Improvement. Lens of Profound Knowledge. www.england.nhs.uk/wp-content/uploads/2021/03/qsir-lens-profound-knowledge.pdf

Coaching Improvement

Important note

Your success as a coach **should not** be measured by the success of the work you are coaching.
Being a good Quality Coach does not guarantee success for the work you coach, but it does mean that your contribution greatly improves the chances of success, the quality of the work and the personal growth and development of the team/individual in their knowledge, understanding and application of QI concepts.

Authors
Sidney Beech, **Bridget Browne**, **Robin Davis** and **Hannah Pearson**

By the end of this section, you will:

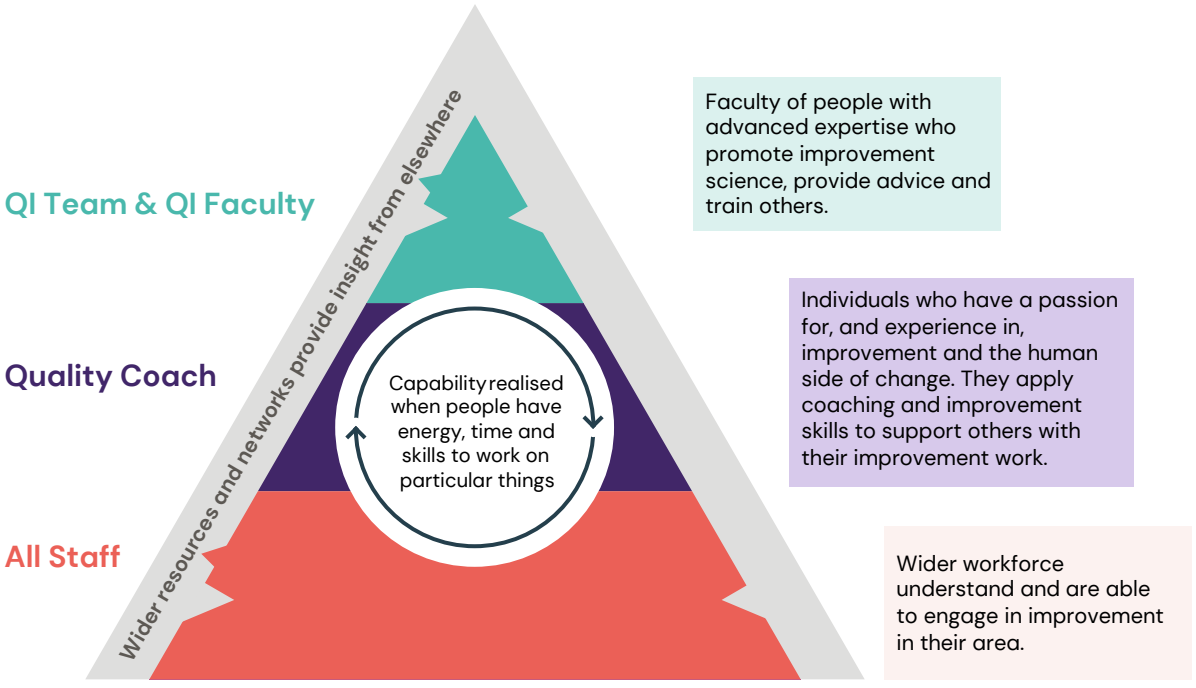
- Understand what we mean 'coaching improvement' and 'coaching development'
- Learn about the difference between coaching and mentoring.

What is 'coaching improvement'?

Coaching improvement involves working with teams and individuals to coach and support them through improvement work. In this role, you will bring together conventional coaching (focused on development and growth) with improvement skills, in order to help teams and individuals succeed in their QI work. Typically, you will be heavily involved in the initial stages as the team begins to understand the work and learns more about QI. As time progresses your involvement will often reduce as the team becomes more independent and comfortable with QI concepts.

The role of coaching improvement

Quality Coaches play a crucial role in their organisation. The role is fundamental in developing an organisational culture of improvement. Many models for how to embed QI in an organisation have been proposed in recent years. For simplicity's sake, we provide one example to support your understanding of the role of coaching improvement in healthcare. This is shown in the image below.



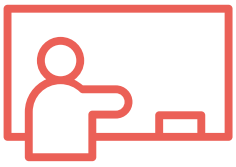
Adapted from The Health Foundation, 2014

You can see in this model that Quality Coaches serve as the conduit between frontline staff and the QI team. Quality Coaches serve as the principal form of improvement support for staff, with more advanced skills and teaching offered by the QI team. This model has been adopted by many NHS providers in recent years, owing to its success in trailblazing organisations.[36]

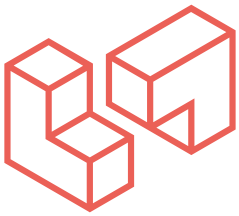
As a Quality Coach, you will be expected to work with the wider workforce, using your coaching and improvement skills to engage staff and deliver improvement work. As outlined in the introduction, the key aspects of a Quality Coach are:

A person with a passion for QI, who has experience of running a project

Has dedicated time to support QI



Teaches and explains the use of QI tools



Works to engage people and teams in QI

Develops and nurtures relationships based on trust and support

Observes QI work of team – provides guidance, support and encouragement

36 NHS Improvement (2017). Building capacity and capability for improvement: embedding quality improvement skills in NHS providers. https://qi.elft.nhs.uk/resource/building-capacity-and-capability-for-improvement/

Coaching vs Mentoring

Coaching and mentoring are both types of development tool. Coaching is defined by the International Coach Federation[37] as "partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential." We often refer to the person being coached as the 'coachee'.

Conversely, mentoring is defined by the University of Warwick[38] as "a more experienced person drawing on their skills, expertise and wisdom to advise and guide a less experienced person to support their personal and professional development".

The table below gives an overview of the differences between coaching and mentoring.

Topic	Coaching	Mentoring
Timeframe	Relationship is likely to be short-term (up to six months or one year) with a specific outcome in mind.	Relationship is likely to be long-term, lasting a year or two, or even longer.
Focus	Coaching is performance driven, designed to improve the on-the-job performance.	Mentoring is development driven, looking not just at the current situation, but beyond, taking a more holistic approach to development.
Structure	Traditionally more structured, with regularly scheduled meetings, like weekly, bi-weekly or monthly.	Generally meetings tend to be more informal, on an ad-hoc basis as required by the mentee.
Expertise	Coaches are hired for their expertise in a given area, generally one in which the coachee desires improvement. For example presentation skills, leadership, interpersonal communication, sales.	Within organisation mentoring programmes, mentors have more seniority and expertise in a specific area than mentees. The mentee learns from and is inspired by the mentor's experience.
Agenda	The coaching agenda is co-created by the coach and the coachee in order to meet the specific needs of the coachee.	The mentoring agenda is set by the mentee. The mentor supports that agenda.
Questioning	Asking thought-provoking questions is a key tool of the coach, which helps the coachee make important decisions, recognise behavioural change and take action.	In the mentoring relationship, the mentee is more likely to ask more questions, tapping into the mentor's expertise.
Outcome	Outcome is often formulated in a coaching agreement which is specific and measurable, showing signs of improvement or positive change in the desired performance area.	Outcome from a mentoring relationship can shift and change over time. There is less interest in specific, measurable results or changed behaviour and more interest in the overall development of the mentee.

Source: Kent State University[39]

37 International Coaching Federation. https://coachfederation.org
38 University of Warwick. Coaching and Mentoring at Warwick. https://warwick.ac.uk/services/lmd/coachingmentoring/
39 Kent State University. Know the Difference between Coaching and Mentoring. www.kent.edu/yourtrainingpartner/know-difference-between-coaching-and-mentoring

Coaching Development vs Coaching Improvement

During this programme the focus is on coaching improvement, which requires a different approach from coaching development. When people refer to coaching they will often be referring to coaching development, as this is more conventional. Coaching improvement is focused on the improvement itself and supporting people throughout the improvement journey, whereas coaching development is more person-centred, focused on the goals and personal development of the coachee.

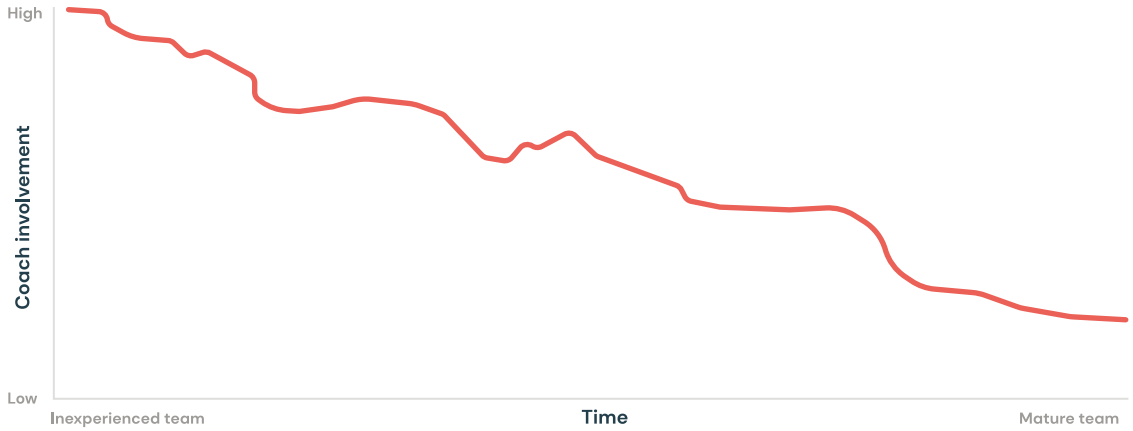
Some of the key differences between coaching development and coaching improvement are outlined in the table below.

	Coaching development	Coaching improvement
Background	Typically works as a senior leader with considerable experience in the health sector.	Experience in leading and supporting QI at a local level.
Training	Formal training on a coaching programme to develop coaching skills practice or accreditation at levels 5 or 7.	Training on the human dimension of change, coaching, leadership, measurement and advanced improvement theory through the Quality Coach Development Programme or similar.
Purpose of sessions	Sessions identify personal goals and development to enable coachees to identify action plans for personal growth over a specified period of time as leaders/emerging leaders.	To identify challenges and barriers to change, and work with the team to overcome these. To guide the team on how to progress, providing their expert support to ensure robust application of QI methods.
Approach	Uses a variety of coaching models to facilitate coaching conversations.	Uses a blend of improvement and coaching methods during coaching conversations. Provides advice and guidance on the use of QI methodologies.
Setting	Confidential conversations take place with an individual or group for emerging leader or leadership development.	Conversations take place with a QI team (or individual), with an emphasis on progress in the QI work.
Timeline	Agreed timeline for coaching between coach and coachee that usually spans between 3–12 months.	Coach's involvement is directly linked to the duration of the improvement project. There is more involvement at the initial stages, which tapers off as the project progresses to sustainment and spread.
Goal	To support individuals and teams to focus on personal development and goals within their roles.	To support individuals and teams to work on and deliver improvements within their department.
Role in sessions	Facilitates sessions to enable coachees as much time as possible to talk, reflect and contemplate personal action plans.	Leads sessions to enable participants time to talk about how to resolve challenges and identify strategies to overcome them with an agreed plan to work on next. May provide specialist improvement advice as well as coaching the team.

The role of the coach over time

Early in the life of a team, Quality Coaches may be more directive, provide training in coaching sessions, and give the team feedback and advice on issues in their work. However, as the team matures, the coach's involvement with the team decreases. They will take a more 'passive' role in the conversation.

There are some steps that a coach can take when working with teams to ensure that the coach's involvement decreases over time (as outlined in the graph below), as the team becomes more independent.



Tips for building independence with teams:

Action		Effect
Encourage teams to run their own meetings (perhaps with a rotational lead or chair).	→	This way the team does not become reliant on you (or another person) leading their meetings.
Be encouraging of success.	→	This will help the team to build confidence and morale as they progress through their improvement journey.
Encourage teams to carry out their own learning. This could be by setting 'homework' tasks, asking them to watch a video or carry out a task alone.	→	This will mean that the team will not become reliant on you providing all the information they need to run their project, and will use their initiative.
Signpost the team to other 'subject matter experts' or websites etc. for support.	→	This encourages the team to be resourceful when needing support with their improvement rather than relying on one person.
Set expectations with the team, that you will join them less frequently as time progresses.	→	This will help the team to understand that the coach's input will lessen over time, and that the team will need to become more independent. It will also prepare them for when the coach no longer needs to support them.
Ensure that you are communicating your 'exit strategy' with the project team.	→	This will mean that the exit will not come as a surprise to the team. They will feel more prepared for it and won't feel as if they are being 'abandoned'.

Coaching Skills

Authors
Sidney Beech, **Bridget Browne**, **Robin Davis** and **Hannah Pearson**

By the end of this section, you will:

- Have built your knowledge of coaching skills
- Know the different types of questioning and listening you can use as a coach
- Understand the GROW model, how to coach an aim, and how to coach driver diagrams.

Coaching Skills and Theories

Skills every Quality Coach needs

Active listening is a fundamental coaching skill. Active listening helps you make the shift from telling, problem solving and giving advice, to asking and enabling the team or lead to have ownership of their challenges.

Questioning is at the heart of coaching. Questioning enables a coach to put aside their thoughts about the 'best' or 'correct' way of doing something and instead, elicit the coachee's ideas about how to approach a problem.

Building rapport with your coachee helps to develop trust and openness, which in turn leads to a psychologically safe environment in which parties can work together. Be mindful that rapport cannot be artificially created, but often comes naturally through the application of the other skills mentioned here.

Empathising is important. The coach should understand and respect the coachee's feelings, motivations and perspectives. An empathetic coach provides a strong support system, and this can help the coachee think creatively about solutions to their problems. As with rapport, empathy tends to develop naturally through active listening and observing.

Summarising and reflecting enables a number of benefits for both coach and coachee. It shows a coachee that they have been listened to and allows them to reflect on what has been said. It helps a coach ensure they have understood the coachee, and helps a coach stay on track. Further, when done well, summarising and reflecting can help build rapport. Summarising entails repeating what the coachee has said, whereas reflecting is closely repeating or paraphrasing the coachee to show comprehension. Make sure that when you summarise or reflect it is just that, and not an interpretation.

Staying focused: Sessions can't cover all topics and scope creep can derail an improvement effort. As such, good coaches need to maintain a session's focus. Maintaining a session's focus can involve structuring a session (for example by using the GROW model), summarising and by using active listening and questioning skills.

Non-judgemental: Coaches should strive to maintain an open and welcoming curiosity with regards to whatever problem a coachee has. In order to do this, a coach must be non-judgemental. This allows a coach to 'be with' their coachee's thinking and experience, rather than focusing on their own reactions.

Giving feedback: Frequent and specific feedback can help a coachee improve their performance over time. When provided appropriately, it can help:

- Improve underperformance by helping to highlight obstacles, skill gaps and under motivation
- Maintain performance by highlighting success and giving praise
- Exceed performance through developing and reinforcing new skills and providing learning opportunities.

There is an art to giving good feedback – it needs to be specific, constructive and non-judgemental.

Reflecting on your experience: You should ensure that you find time for your own growth and development as a coach during and after the programme. This means ensuring that you use existing networks to conduct reflection on your own experiences and learning from peers, whether that be through reflective tools, coaching circles, buddies, mentors or members of the faculty.

Strike the balance between improvement coach and advisor: As a Quality Coach, you will need to change your approach based on the context of each meeting, the team you are supporting and the task at hand. Use the Hersey-Blanchard model (page 108), your situational judgement and expertise to gauge the right approach.

Questioning is an essential skill when coaching teams through improvement. It can help the coach to let go of how they think something should be done, and support the coachee to reach their own conclusions. There are many different types of question, which are described in more detail below. As a coach it's important to know the difference between the types, and when each is appropriate or inappropriate to use. As the American physicist Thomas Khun said, "the answers you get depend on the questions you ask".

Definition	Use as a coach	Examples:
Open questions		
Open questions are questions which are not simply answered using 'yes' or 'no'. These questions lend themselves to the person answering with more information. As a coach you are supporting people to find their own solutions. Open questions are key in doing this as they allow the coachee to explore their own thoughts, ideas and feelings.	Open questions are useful as they can encourage wider discussion and thought. As an effective coach you will ask a wide range of questions at the appropriate time. This will help your coachee to: • Gain clarity, understanding and perspective • Think more deeply, or think alternatively • Challenge current thinking • Evaluate themselves and their situation • Explore options • Explore facts, thoughts and feelings • Look at issues from a different point of view • Plan and take action.	• What would you like to achieve from the session? • What does everyone believe their role in the project is? • How did you do that? • Tell me about your experience with... • When have you achieved success in the past? • Who can help you achieve this? • When do you plan to do this by? • Which option do you prefer?
Closed questions		
Closed questions are questions which generally invite an answer of simply 'yes' or 'no', or possess a specific response.	Closed questions can be used to warm up a group, as follow up questions can be asked. These may be useful for quieter groups as an icebreaker, or to get a quick answer. They can also can be used to ask seemingly obvious questions which may give the team time to think over their answer.	• What's your name? • What is your job title? • Do you think that's a good idea? • Is there anyone else we need at this meeting? • Is there something missing? • Is there anything you might have not thought of?

Definition	Use as a coach	Examples:
Reflective questions		
Reflective questions are open questions but you are reflecting back the words, thoughts or feelings you have picked up and then follow up on that.	Reflective questions can be useful to reflect back what you sense, to try and understand the feeling or drivers behind what a coachee has said. They can also be used as a pulse check to ensure that you understand the situation correctly, including the emotions surrounding it.	• You say you are worried about the changes... can you tell me more about that? • You sound a little despondent, what's behind that?

Source: Nulab (2018)[40]

40 Nulab (2018). The 8 essential questioning techniques you need to know. https://nulab.com/learn/collaboration/the-8-essential-questioning-techniques-you-need-to-know/

Listening

Just as questioning is a core skill for a coach, so is listening to the coachee. Coaches need to listen actively to what the coachee is saying so that they can support them to arrive at solutions and work at a pace that suits them. Listening can be categorised into the three different types listed below.

Definition	Use as a coach
Internal listening	
Focusing on own thoughts rather than that of the speaker. Thinking about what they are saying means for you.	This is a type of listening that is common in everyday conversation. As someone is speaking, you may be thinking "How does this affect me?" or "What do I think about this?". As a coach you will not use this skill very often, as the session should be focused on what the coachee, rather than the coach, thinks and feels. However, when coaching improvement it might be useful to think "What tool would I use?" in order to be able to guide the team through their improvement work.
Listening to understand	
Getting a real understanding of what is going on for the coachee.	Focusing completely on the speaker and what they are saying, not being distracted by your own thoughts. As a coach you will use this to better understand what the coachee or team is thinking and feeling. This will help you to ensure they benefit from the coaching experience.
Global listening	
Picking up more than what is being said, for example through emotion, body language and signals.	Listening to what is being said, taking into account body language, energy and emotions. This can help the coach to understand not only what the coachee is saying, but what they are not saying. As a coach, you need to understand what the team is thinking and feeling in order to be able to ask the right questions to best support them on their improvement journey.

Source: Personal Coaching Information[41]

41 Personal Coaching Information. A Guide To Coaching & Being Coached. www.personal-coaching-information.com/levels-of-listening.html

GROW Coaching Model

The GROW model[42] is a coaching framework used in conversations, meetings and everyday leadership to facilitate problem solving, goal setting and improvement. It was developed by Sir John Whitmore. GROW is an acronym for **G**oals, **R**eality, **O**ptions and **W**ill. This is explained in the table below.

The GROW model

G	**Goal** Define the goal(s)	• What do you want to achieve? • What is the ideal? • What does success look like? • How will you measure the results? • What's the big picture?
R	**Reality** Explore the current situation	• How are things going right now? • What steps have you taken? • What were the outcomes? • What is going well right now? • What isn't going well right now? • What barriers are there? • How do you feel about your improvement work?
O	**Options** Identify and evaluate options	• What are the possible options? • Who might be able to support you? • What else could you try? • Which option do you like most? • What could be your next step? • What can you try in the time that you have?
W	**Will** Define what you will be doing and when	• What are you willing to do next? • What will it take to move towards your goal? • What will happen if you don't do it? • What kind of support do you need and from whom? • When will you do it?

You can use this table to facilitate your conversations as a coach, using the GROW model.

42 Whitmore, J. (2017). Coaching for performance: GROWing human potential and purpose: the principles and practice of coaching and leadership. *People skills for professionals* (5th ed.). Nicholas Brealey.

Coaching an Aim

Teams with a vague and poorly defined aim often struggle to accomplish anything tangible. Without a clear aim that is shared by all team members, every distraction and challenge can easily steer them off course. If the purpose of the improvement is not clearly established and well communicated, then others may not engage or may become resistant. Your role as a coach is to support teams to establish a clear aim that they then use to guide their improvement efforts and to communicate with their stakeholders.

To make sure their aim is clear and reachable, it should be **SMART**: **S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**ime-bound.

As you can see there are a few definitions for the acronym. Some use the extended **SMARTER** acronym to include **E**valuated and **R**eviewed to reflect the importance of efficacy and feedback. We have included a simple prompting table to help with setting a SMART aim.

S	**Specific** simple, sensible, significant.	• What do you want to accomplish? • Why is this goal important? • Who is involved? • Where is it located? • Which resources or limits are involved?
M	**Measurable** meaningful, motivating.	• How much? • How many? • How will you know when it is accomplished? • What are the wider consequences and potential knock-on effects of this work?
A	**Achievable** agreed, attainable.	• Is this within your locus of control or influence? • What are the pebbles in your shoes? • How can you accomplish this goal? • How realistic is the goal, based on other constraints, such as time and other factors?
R	**Relevant** reasonable, realistic and resourced, results-based.	• Does this seem worthwhile? • Is this the right time? • Does this match your other efforts/needs? • Are you the right people to reach this goal?
T	**Time-bound** time-based, time-limited, time/cost limited, timely, time-sensitive.	• When? • What can you do six months from now? • What can you do six weeks from now? • What can you do today?

Source: NYU Coaching for Leadership[43]

43 NYU Coaching for Leadership. SMART goals. https://wp.nyu.edu/coaching/tools/smart-goals/

Beware 'weasel words'!

'Weasel words' are words that have no specific, obvious and singular meaning. They bring no clear images to mind of what is meant. Their use in an aim makes objective measurement difficult. It's best to avoid them and help teams move away from 'weasel words' to something more quantifiable. Examples of 'weasel words' are shown below.

best practice	**excellence**	**responsive**	**value-added**
effective	**high quality**	**streamline**	**world class**
evidence-based	**high value**	**value**	

Coaching Driver Diagrams

A driver diagram is an important tool that most teams will use as part of their improvement work. It is often referred to as the 'roadmap' for achieving the aim of improvement work, given it helps teams to make a direct connection between changes and the SMART aim.

Benefits of driver diagrams

- Help to break down a complex issue or problem into more manageable components
- Create a shared understanding of the intentions of the improvement work – what will be tested and why
- Foster collaboration, as developing them requires a team effort, and using them in practice requires a shared responsibility for change
- Represent a complex strategy in a simple-to-understand and visual manner. This is beneficial when communicating QI work to key stakeholders
- Help teams to think beyond the obvious and think more broadly about their QI work. What else could be done? Can they build on the drivers to develop new and interesting ideas?
- Ensure energies are focused on where the biggest impact will be felt. An understanding of the relationship between changes, drivers and the aim can help teams to decide where to start
- Can be a useful project planning tool – keeping teams on track by ensuring all work they do is clearly documented on the driver diagram. This can help to avoid scope creep
- Help teams to review their measurement approach – have they captured the best process and balancing measures for their QI work? Does this need review after creating the driver diagram?
- Relatively easy and quick to create, especially if facilitated by an experienced Quality Coach.

Whilst driver diagrams clearly bring about many benefits to improvement work, they can at times be challenging or difficult to use, especially for more inexperienced teams. Examples of challenges include:

- Finding it difficult knowing where to begin
- Not understanding the theory including how the diagrams help to establish a causal link between action (change ideas) and effect (outcomes and the SMART aim)
- Being overly ambitious, such as by creating a very large diagram including multiple change ideas and many drivers
- Not knowing who to involve and therefore creating a diagram that does not reflect others' views.

As a coach your role will be to troubleshoot any challenges team face, and help them to develop a driver diagram that works for them. It may not always be done in one sitting – sometimes it can be helpful to take a break from the activity. It's important to ensure the right people are in the room to help produce a better diagram and to prevent potential barriers or resistance to change.

You may wish to take on a more facilitative role in supporting teams to create driver diagrams. There's no wrong way to create a driver diagram; assure the team of this, so they feel confident to get started. A common method to support this is to work from right-to-left. This asks teams first to explore the changes they think will help to achieve the aim before categorising these ideas into distinct groups.

These groups will form the basis for secondary drivers. Using these you can then explore how these relate to one another and the SMART aim to help create primary drivers. In following this approach the team will now have the first version of their driver diagram. At this stage it is helpful to pause and ask the team "if you did everything on this diagram would it achieve the aim?". If they remain unsure then they should consider additional ideas, building on the drivers they have just created.

Using example driver diagrams, either from your own experience or from other work, can be helpful in inspiring teams to create their own driver diagrams.

For more information see NHS Improvement's information on driver diagrams.[44]

44 NHS Improvement. Driver diagrams. www.england.nhs.uk/wp-content/uploads/2022/01/qsir-driver-diagrams.pdf

Your Role as a Quality Coach

Authors
Sidney Beech, Helen Crisp, Robin Davis and **Hannah Pearson**

By the end of this section, you will:

- Understand the importance of good contracting
- Recognise the 'many hats' of a coach, and when you will need to wear them
- Be aware of the pitfalls of coaching improvement, and tactics for handling them.

Why contracting is important

In your role as a Quality Coach, you will often work alongside a team, rather than be part of a team. It is likely that the teams you work with will not have any experience of working with a Quality Coach before. Indeed, they may be more familiar with a different approach to change management, where someone is telling them what to do, or even does the work for them. This is not your role as a Quality Coach. Therefore it is crucial that you explain your role to the team, including how you can support them with their QI work. Relationships will be slightly different with each group that you work with, so it's important that you establish expectations early in the relationship, so that both parties know what to expect, and can fulfil their role effectively. Contracting involves the setting of clear expectations regarding the relationship between you and the team you are working with. Some people will refer to it as 'setting ground rules'. Bad contracting, or not contracting at all, can lead to poor relationships between coaches and teams, so it's important to get it right.

How to contract as a coach

When working with teams, you should be clear on your role and how you can support teams to succeed in their improvement efforts. Common topics to consider in a contracting conversation include:

Establishing clear goals and objectives

- What is the improvement goal?
- Is everyone on the same page? Are we all working towards the same goals?
- If not, what discussions need to take place before you can begin in your role?

Coming together

- Contracting often takes place in the first or second meeting with a team. However, it is unlikely to be just one conversation. As the improvement work evolves, and as the team become clearer on what work is required, you may wish to revisit the contracting conversation.
- An important aspect of contracting is logistics:
  - How often should we meet and where?
  - What is the purpose of the meeting? A quick catch-up on progress, a facilitated discussion about the QI process or something in between?
  - Who is ultimately responsible for this QI work?

Roles and responsibilities

- A key part of contracting involves the explanation of the role of the coach – it's important at this stage to explain that you are not leading the improvement work, nor are you a project manager. You may want to explore their expectations:
  - What is your understanding of my role in supporting this QI work?
  - What help do you need?
  - Is there anything you don't want me to do?
- By working together, you can often come to some agreement on the best way to go forward. You may wish to document this as a useful reference point down the line. An example of a simple contract (what I will/won't do) is shown below. You will need to decide what form of agreement and level of detail is right for you and the team. It's okay for it to be less formal or detailed than this – or even more detailed.

Understand needs and build independence

- Explore the team's needs around QI and the improvement work. Do they even need a coach at this stage, or are they independent enough to get started?
- What are their collective strengths and weaknesses or knowledge gaps?
- Do they need any training in QI? If so, how do they access this?
- How can you gradually build their confidence and competence in QI so that you can step back as a coach?

Group dynamics

- What aspects of the discussions you have as a coach do you and they expect to remain confidential?
- Behavioural norms – honesty, not blaming people for things that don't work, embracing failure etc.

There is no set way to contract with a team. You should do what works well for you – flexing your approach based on the team and individuals that you are working with.

My role as a Quality Coach

Things I will do...

Coach and guide you through the improvement process	Listen and offer a safe space to share	Help you learn how to use improvement tools
Encourage and empower you	Share stories and experiences	Ask questions – including challenging ones!
Be present and respond to you in a timeley way	Help you reflect and provide feedback when asked	Celebrate your successes

Things I will not do...

Answer every question given to me...	Take over	Project manage
I will not do all of the talking	Chase you to complete actions	Give you solutions
Be responsible for reporting on your project	Force you to complete your project	Plan and arrange your meetings

Things I can do...

Link you with similar project (teams)	Provide or help you access training	Guide you to devise a SMART aim
Get you support with analytics	Help you to think creatively	Help you think through issues
Give advice – but only sometimes!	Signpost	Help you reflect

Things I cannot do...

Lead your project	Be responsible for the actions	Do all the project work for you
Tell you all the answers	Be responsible for your learning	Set your goals
Allocate protected time	Override the decision of your manager	Be here forever

Source: CLCH Quality Coach Cohort 1

The many hats of a Quality Coach

As a coach you will find you have to change your approach and role at different stages of QI work and within sessions with teams, as the situation demands.

The primary role of the Quality Coach is to help the team to develop their QI skills and support their progress with the QI work they are involved in, using the coaching skills that are at the core of this programme, such as GROW coaching and active listening. Coaches sometime need to shift gear and adopt other hats or roles to support QI teams to achieve their goals.

Other important roles include:

Facilitator

It can often be helpful to adopt the role of facilitator when attending meetings or more practical workshop events with the QI teams that you are supporting. Facilitating is different from chairing a meeting, although it has some of the same aims in ensuring that the purpose of the meeting is met and that there is a process to run the meeting. A facilitator also pays a lot of attention to the experience of participants in the meeting or event, and uses reflective practice to help the group function effectively and make high quality decisions.

A facilitator provides leadership, without being directive. The facilitator helps the group to define objectives for the meeting or workshop and provides enough structure that the time can be used efficiently. The aim of a facilitator is to enable the group to assume responsibility, and then guide discussions so that decisions can be reached. This is sometimes by consensus once options have been explored. When there is not agreement in the group, the facilitator uses discussion techniques that enable gridlock to be avoided. Skilled facilitation enables decisions to be made in ways that take all the members' views into account so that everybody feels heard, even if the final decision does not go their way.

When facilitating, the content of the meeting is held by the team, such as the objective of the work, the QI methods they are using, progress with gaining the data for their measures and so forth. As the facilitator, the Quality Coach needs to focus on the process of the meeting, including aspects such as the style of interactions, group dynamics, the extent to which all the team members can have a say, and how the time is being used to achieve the objectives of the meeting. The facilitator needs to stay neutral on content, listen and note the discussion, paraphrase what is being said and synthesise the ideas that are coming up.

Adviser

On other occasions, the role of the Quality Coach needs to switch to that of adviser to the team. It is recommended that the adviser role is used sparingly. However, it is important to provide advice when needed so that team members do not waste their time and resources by pursuing approaches that are unlikely to be successful.

You need to consider how best to provide advice to ensure that it will help to build independence and confidence in doing QI work amongst the team. People do not tend to respond well to being told what to do. The approach should always be to advise on QI tools and techniques and how these can best be applied, rather than telling the QI team what they should or shouldn't do. A key technique is to ask questions and test assumptions prior to dispensing any advice. Sometimes the questions and responses can help the group to see why their proposed actions may not be the best course, and stimulate a rethink. In other situations, asking questions will help the coach to understand the context and surface any other issues, enabling better advice to be given.

A helpful approach to giving advice, which may make it more likely to be acted on, is to pose it as suggestions offered: "Have you considered...?" or "A different approach you could use is...". If the team does not take you up on these, you can then step up the advisory role by explaining some of the potential problems with their planned approach, always relating this to how the QI tool selected or the way they are applying it may not get the results they hope for.

Avoid telling people explicitly what to do and especially using phrases like "That won't work" or "In my experience...". The team are the experts on their service and context and are unlikely to respond well if advice seems patronising or is coming from someone who does not understand the service the way that they do. If you try to impose your own solution it may be that the team comes to rely on you to sort out every challenge that arises. Or conversely, if they do not take ownership, they may not try particularly hard to make it work, and may blame you if it's not successful.

Teacher

Switching to 'teacher' mode is an appropriate response when the team are lacking technical knowledge about a QI method that is needed to progress their work. In this situation, use your open questioning technique to find out how much different team members know about the tool or technique. Someone on the team may have some knowledge and you can build on this to grow their confidence so that they become, for example, the SPC chart lead for the project.

Make sure that you feel confident yourself and that you have the materials available to competently teach. At first you may prefer to arrange a short session in the near future, so that you have time to prepare, as opposed to ad-hoc teaching. Have some presentation materials and exercises ready so that the team members can have a go during the teaching session. After you have delivered the teaching a few times, you will be able to slip into teacher mode more responsively. Once you have done the teaching, you can encourage team members to put the knowledge to use, applying it to the project in a timely way and consolidating their experience in using a tool or technique.

Example Role Description of Quality Coach

Authors: CLCH QI Coach Forum

Please check with your local improvement team or lead for the role description that has been adopted by your organisation. This description has been provided to support your understanding of the role. It was created in partnership with 12 Quality Coaches based on their own experiences of coaching QI work.

Role profile

Title: Quality Coach

Pay scale: In line with current pay (integrated into existing role)

Accountable to: Trust QI lead and divisional leadership team

Hours: Nominally ½ day per week

Location: Division and service-level role

Summary

The Quality Coach role is an exciting opportunity for existing staff members to establish themselves in a formal improvement role within the organisation. Within the role you will provide quality improvement (QI) coaching support to a range of teams and individuals, providing expert guidance and support to realise sustainable improvements. To achieve this, you will work closely with key stakeholders, e.g. the QI lead and senior leadership within your division and the QI team.

You will form part of a wider network of improvement coaches and specialists, who collectively will help our organisation to achieve its ambition of developing a culture of continuous improvement within the Trust. As part of the role you will receive protected ('ring-fenced') time within your current substantive post. Your line manager and divisional QI lead must approve this before you undertake this role.

Upon commencement of this role you will be invited to the Quality Coach Development Programme. This programme will equip you with the essential skills and knowledge you need to excel as a Quality Coach.

Purpose of the role

- Coaching teams and individuals with QI work, ensuring alignment to local and strategic priorities
- Championing quality improvement at all levels within the Trust
- Developing and strengthening local relationships between improvement and the wider team
- Building improvement capability at a local level.

Key responsibilities and result areas

The key responsibilities indicated below should be discussed and agreed locally (i.e. with senior divisional leaders). This role profile should form a basis to support the agreement of what a coach does/doesn't do locally. You may wish to indicate which duties are 'essential' and 'desirable'.

Coaching teams and individuals in QI

- Provide improvement coaching support and advice to teams/individuals using the selected QI methodology (e.g. Model for Improvement) and coaching techniques (GROW or similar)
- Support the documentation of QI work using the Trust reporting system (e.g. Life QI)
- Seek support from wider QI team and coaching network in the organisation, where complex challenges or unknown factors arise that fall outside of your expertise.

Championing QI at all levels

- Act as a champion for QI at all levels of the organisation
- Be an ambassador of QI, bridging the gap between QI and the rest of the organisation
- Promote the QI support offer (such as QI training, coaching and facilitation), when needed
- Recruit new QI champions within your service/division and encourage their participation in QI work
- Act as a role model for QI and run your own QI project to maintain up-to-date QI skills
- Promote QI work externally, through conference submissions, external events, the Q community and publications.

Developing relationships

- Work in partnership with senior leadership in the division, to ensure coach capacity is aligned to local and strategic improvement priorities
- Work alongside the QI team to provide coaching updates, troubleshoot problems/challenges, reflect and provide insights within the division
- Actively network with other coaches as one means of ensuring continuous development. This may be via a coach forum.

Building QI capability

- Provide Just-in-Time training to teams/individuals on key QI concepts
- Deliver QI training in partnership with the QI team, including formal training programmes such as Improvement Fundamentals, QI Practitioner and Quality Coach Development Programme
- Seek continuous professional development opportunities in QI/coaching within and outside of the organisation.

Key attributes

All new coaches undertake the Quality Coach Development Programme to ensure they are able to meet the key criteria of this role.

Essential

- Have a deep understanding of QI methodology and be able to apply this in a practical way
- Experience and evidence of running a QI project (completed or ongoing)
- A good communicator and facilitator
- Be able to support QI teams in their learning
- Well organised and able to plan QI work with teams
- Able to manage own workload, and able to commit to the time requirements, with support from local/divisional leadership
- Collaborative mentality and willing to attend and contribute to training and development opportunities.

Desirable

- Experience of delivering teaching and/or training within health and care.

Common Pitfalls of Coaching Improvement

Working with groups to deliver improvement can be difficult. Each group will bring about its own challenges, as each group dynamic and change will be different. There are however some common pitfalls which you may come across when coaching improvement. These are listed below, although this is not an exhaustive list. We have given tips on things to do to avoid or resolve some of these pitfalls. As a coach it is important to have these on your radar.

Expected to fix everything

As a coach you are there to support the team to carry out their own improvement work. However, some teams may see you as a 'person that is going to fix everything', which is not your role. Ways to avoid this are by:

- Ensuring you carry out good and effective contracting with the team so that they are clear what your role is
- Explaining that the team are the experts, and your role is to coach them – not to give them all the answers, but to support them with tools to deliver improvement
- Using questioning to get the team to think about how they can solve their problems:
  - What have you tried before?
  - What do you think might work?
  - Who might have sorted this?

Unrealistic timeframe

You, or the team, may be given an unrealistic or short timeframe in which to deliver improvements. Ultimately, that can be unhelpful for the team. They may have been given a task that seems insurmountable, and time pressure on top can create negative attitudes. As a coach your job is to be pragmatic, and work with the team to provide your expertise on how long a piece of work might take. You can do this with the team by considering the following questions:

- Who has set the timeframe? Why is it so short?
- What is the data telling us?
- What are the barriers to achieving this timeframe?
- What do we need (in addition) to get nearer to achieving it?
- What is a more realistic timeframe?

You may need to explain to the Sponsor that QI often takes time to do well. An alternative approach may be better if time is non-negotiable, such as project management.

Coaching a team that doesn't want you

Sometimes teams are given something to work on by their managers but may see this work as less important than their other priorities. In other cases, teams may be happy working on something, but feel they do not need any help from a coach. In both of these cases, if you are the assigned coach, it can be difficult to manage these relationships. It is important to work on addressing a situation like this – don't ignore it and hope it will go away. Some things you may want to consider are:

- Who are you contracting with here? Has the message been clearly communicated?
- Do you need to explain that you're there to support the team, not to tell them what to do or 'spy' on them?
- Does someone need to talk with the team?
- Does the team really need you? If so, ask the team what support they want/need.

Getting too involved/ taking over

Sometimes when coaching, lines can get blurred. If a team is particularly dependent on you, you may find yourself leading the team or taking over. This is not coaching and should be avoided. Here is some advice on how to prevent this, and what to do if you find yourself in this situation:

- Be clear of your role at the start – this comes down to good contracting. This way both you and the team will have a good understanding of the role, and this will help keep you in the right space
- Explore what's getting in the way of the team taking ownership
- Reflect on your own boundaries – is this something you do often? Why do you think it has happened in this scenario?
- Are you disempowering the team?
- Gently coach back to the team taking ownership
- Are you best placed to coach this particular team?

Coach is linked to the success/failure of the project

If a coach has been brought in to support a team on a long-standing issue, there can be an assumption that the issue has not been resolved in the past as there was no coach – and that now there is a coach the issue will be resolved. This links the coach to the success or failure of the project, which should be avoided. Some ways to prevent and address this are:

- Good contracting at pre-entry stage – this may be with the team, or potentially someone more senior who has assigned a coach to the project
- If the coach has been brought in to resolve a complex or longstanding issue, encourage the team to discuss at length: What can they do to address this? What are the root causes?
- Explain your role as a coach to all parties
- Good use of questioning to ensure the team comes up with the solutions
- Support the team to undertake a robust evaluation of contextual factors inhibiting/ enabling change.

Unrealistic scope (solve world peace)

The scope for improvement work can sometimes be incredibly large and unrealistic. Projects like these are sometimes referred to as 'world peace' projects (projects that have an unrealistic scope or aim, such as solving world peace). It's important as a coach to bring the team back down to reality, so that they can see results of their work, whilst maintaining their enthusiasm. Some tips for this are:

- Good contracting at the start
- Who sets the scope? Team, you or management?
- Who do you need to contract with?

You might work with the team to find out:

- What might be achievable?
- What is a good first step? Could 15% solutions help? (see page 127)
- What is under your control, what can you influence and what could you adapt to? (see CIA Model on page 63)
- Could we create a driver diagram and identify what is realistic?

You are part of the management

Coaching a team in which you are part of the management can bring challenges because of the change in dynamic. The team may be used to you telling them what to do, and it might take some time for them to adjust to the new style of working, where you are coaching, rather than being directive and telling. Some things you can do to prevent this include:

- Using your emotional intelligence – how you interact with the team, look to understand their roles
- Know individuals' strengths, so that you can use them
- Ask questions and resist giving answers
- Empower the team (let go of your power)
- Get feedback from the team on how they think the process is going, what is working well and what could be improved. This can be anonymised but will help you to coach them more effectively.

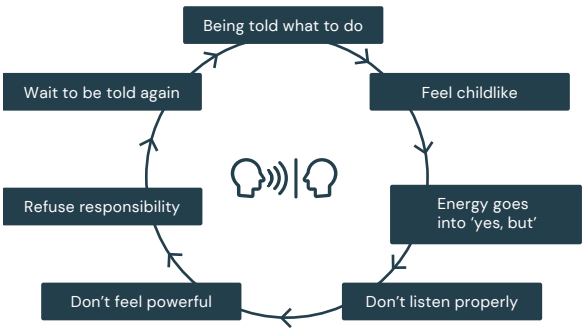
Coaching work which isn't appropriate for QI

Not all work is appropriate for or lends itself to QI methods. This means that coaching this sort of work can become very tricky, as the methodology is not helpful. Some examples of work which may not be appropriate for QI are listed below. In these cases, ensure that you think about whether a coach is the best way to support the work. Speak with an experienced coach or QI lead about how you could approach work with factors like:

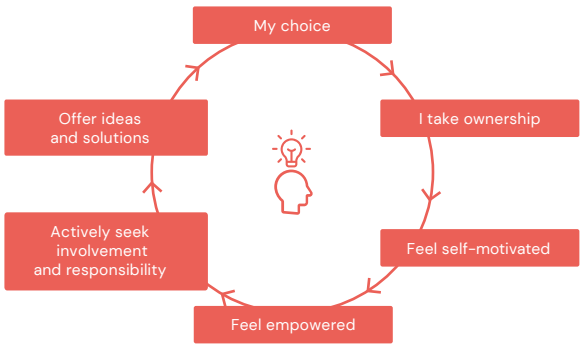
- Politically charged issues
- Fixing short-lived problems
- One-off or infrequent training/educational workshops
- "We need more staff"
- Developing a measurement system
- Any project that cannot answer "how will we know that a change is an improvement?" i.e. with no measurement.

Being too directive with teams

Coaching people isn't about telling them what to do – it's about supporting the person to make their own decisions and find their own answers. The belief that the person has the answer within them is a core principle in coaching.[45] This is important because telling people what to do can elicit a reaction called 'psychological reactance'.[46]



Psychological reactance is our brain's response to a 'threat to freedom'. This may be a response to a suggestion, or someone telling you to or making you do something. When this happens people may experience negative thoughts or feelings, for example anger. These negative thoughts or feelings may leave them with the urge to respond, potentially by doing something to 'restore their freedom' by rebelling against what they have been told. This can be described by the term 'you insist, I resist', where if someone insists you do something, you are likely to resist doing that thing. The diagram to the right outlines a potential cycle for 'you insist, I resist'.



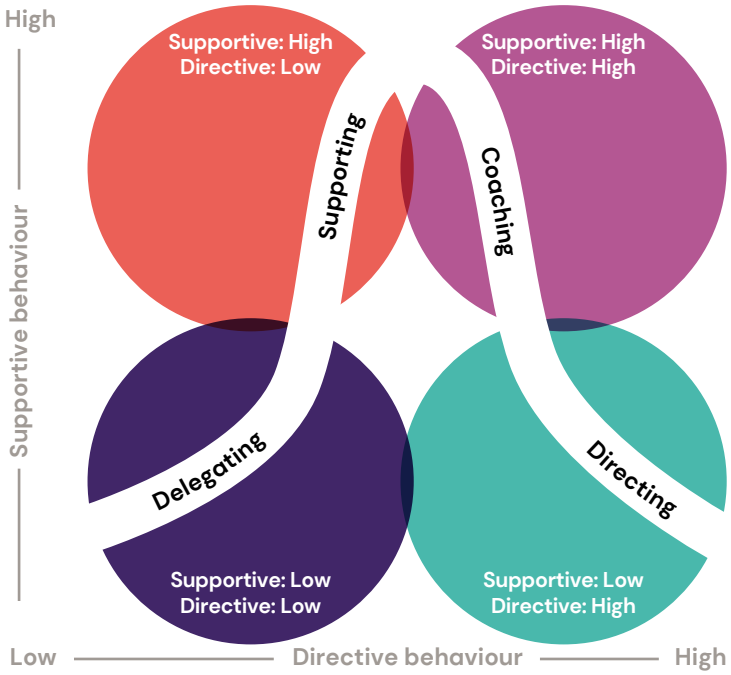
When coaching a team, it's important to not tell them what to do, but support them to decide and think for themselves. In contrast to telling, a supportive coaching role is less likely to elicit negative thoughts or emotions with the coachee – but rather leave them feeling empowered. The diagram outlines how this might work in practice, and is much more likely to lead to solutions than the cycle above.

45 Life Coach Directory. What is coaching? www.lifecoach-directory.org.uk/content/what-is-coaching.html
46 Psychology Today (2019). Why We Hate People Telling Us What to Do. www.psychologytoday.com/gb/blog/conscious-communication/201906/why-we-hate-people-telling-us-what-do

Hersey-Blanchard Situational Leadership Theory

The Hersey-Blanchard Situational Leadership Theory suggests that the most effective leadership style is affected by the circumstances leaders find themselves in (Hersey and Blanchard, 1977).[47] As a coach, your ability to support and coach a team depends upon certain situational factors. These factors include the relationship, task, your authority in the group and level of maturity within the group. By understanding these factors, you can tailor your approach to best suit the needs of the team.

The Hersey-Blanchard Situational Leadership theory is shown in the image below.



Source: Gunter Group[48]

Developmental level of the individual

Self-reliant achiever
High competence
High commitment

Capable but cautious performer
High competence
Variable commitment

Disillusioned learner
Some competence
Low commitment

Enthusiastic beginner
Low competence
High commitment

Competence and commitment

The developmental level is determined by each individual's level of competence and commitment. These levels are shown on the right hand side of the image.

1. Enthusiastic beginner: High commitment, low competence.
2. Disillusioned learner: Some competence, but setbacks have led to low commitment.
3. Capable but cautious performer: Competence is growing, but the level of commitment varies.
4. Self-reliant achiever: High competence and commitment.

47 Hersey, P., and Blanchard, K. (1977). *Management of Organizational Behavior: Utilizing Human Resources* (3rd ed.). Prentice Hall.
48 The Gunter Group (2019). Situational Leadership. https://guntergroup.com/situational-leadership/

Leadership Styles

In this model, effective leadership is dependent on two key behaviours: supporting and directing. Supporting behaviours include actions such as encouraging individuals on the team, listening to them and their views, and offering recognition and feedback. Directing behaviours include giving specific directions and instructions and attempting to control the behaviour of group members.

The theory identifies four basic leadership styles:

1. Directing: High on directing behaviours, low on supporting behaviours.
2. Coaching: High on both directing and supporting behaviours.
3. Supporting: Low on directing behaviour and high on supporting behaviours.
4. Delegating: Low on both directing and supporting behaviours.

The key point here is that none of these four leadership styles is 'better' than the others. As a Quality Coach, you will need to match your behaviour to the development skill of the team you are working with, for the given task. If the team (or members of the team) are competent in a skill or concept, then you should be less directive and more supportive (delegating and supporting). If they are less competent or experienced, then you should use conventional coaching and directing skills.

There are four key contextual factors that coaches should consider when making an assessment of the situation:

The Relationship	Coaches should consider the relationship they have with teams. Social and interpersonal factors can play a role in determining which approach is best. For example, a group that lacks efficiency and productivity might benefit from a style that emphasises order, rules, and clearly defined roles. A productive group of highly skilled workers, on the other hand, might benefit from a more democratic style that allows group members to work independently and have input in organisational decisions.
The Task	Tasks can range from simple to complex. As a Quality Coach you should have a clear idea of exactly what the task entails in order to determine the right approach.
Level of Authority	As a Quality Coach you may have power conferred to you by the team. Often this is gained through relationships with team members, by earning their respect, offering support to them, and helping them feel included in the decision-making process.
Level of Maturity	As the Hersey-Blanchard model suggests, you should consider the level of maturity of each individual group member. The maturity level is a measure of an individual's ability to complete a task, as well as their willingness to complete the task. Assigning a job to a member who is willing but lacks the ability is a recipe for failure. Being able to pinpoint each team member's level of maturity will allow you as a coach to choose the best leadership approach to help team members accomplish their goals.

Self-directed Learning

Author
Bridget Browne

Reflection

You should meet with your mentor to reflect on the content of this module. Some of the questions below may help to facilitate your reflection.

- Do I understand the role of a Quality Coach and how this looks in practice?
- Am I clear on the role of a Quality Coach *within my organisation*?
- Do I understand the differences between 'coaching development' and 'coaching improvement'?
- Do I feel confident using the GROW coaching model?
- Do I understand the differences and similarities between QI, audit, research, project management and service evaluation?
- Can I easily explain my role to teams/ individuals that I am coaching?
- Am I comfortable bridging the gap between 'coach' and 'advisor', when needed?
- Do I know how to 'contract' as a Quality Coach?
- Do I have a plan for gradually delegating and limiting my input into the project team(s) that I am coaching?

Self-directed learning activity: Coaching scenarios

Below are three common QI coaching example scenarios. For each:

Step 1
Read through the scenario (one minute).

Step 2
Consider some coaching questions and make notes of the type of questions you may ask in this scenario (five minutes).

For scenarios B and C:
Step 3
Consider and note the tools, methods and approaches you could recommend to the team (five minutes).

Try to adhere to the time limits. As a coach you often need to respond in the moment to the information presented to you. It is good practice to recreate a time limited scenario when reviewing the scenarios.

You may wish to share your work with your coaching circle and get feedback from the group about your questions when you next meet.

SCENARIO A

Coaching on an aim statement/concerns staff will not be receptive to the aim

Background

You have been contacted by a team leader who is working to improve communication at handover.

The team leader recently visited an NHS Trust where she learnt about a handover checklist a team there is using. She took a copy of the handover checklist and is very excited about it. She thinks it will help reduce errors due to inaccurate communication at handover.

The team leader has developed a project charter including an aim to implement the new checklist. She asks you to meet with her to talk through her project with a view to helping her get the team to accept her aim and proposed change.

Aim statement

Within two months Gold Ward will implement a new handover checklist.

Using a coaching approach, what questions could you ask to help the team leader to refine her aim statement and consider how to engage the team in her improvement work?

Note your questions here

SCENARIO B

Coaching a stalled team

Background

Your QI Team has asked you to get in touch with an improvement team who have stalled. From what you know the team were very engaged and active in their meetings. They were considered to be motivated in their improvement work and had a clear aim. The team members are trained in the theory of improvement. They developed a driver diagram and were gathering baseline data. It has been three months since they started collecting baseline data and they don't appear to have moved towards testing. You contact the team leader who tells you they can't seem to move to testing change ideas.

Using a coaching approach, what questions could you ask to help the team move forward?

What tools, methods, approaches could you recommend to the team?

SCENARIO C

Coaching on spreading change

Background

You are working with a team who work in a busy community clinic which has experienced an increased number of aggressive incidents between patients and staff. The team attended an introduction to QI training course. They then developed an aim (to improve team debrief following an incident of aggression) and have built a driver diagram. They do not appear to have any measures identified and have not logged any PDSA. They have focused on one change idea which is to introduce a team debrief huddle after each incident. At this huddle any available staff member who was involved in the incident joins and they consider what went well and what they can learn from the incident. The team really feels this is making a difference, particularly the focus on what went well which they feel is helping team morale. They have shared the huddle format with a neighbouring community ward who have decided to implement the same huddle format following an incident on the ward involving patients and staff.

Using a coaching approach, what questions could you ask to help the team move forward?

What tools, methods, approaches could you recommend to the team?

04

Working With People

This chapter focuses on

Facilitation

'Facilitation is a set of skills to be used in working with a group, enabling and supporting them to achieve their objectives in a way that involves and respects all contributions, encourages creativity, builds ownership and releases the potential of the group and its members.'

The Institute of Cultural Affairs[49]

Authors
Sidney Beech, **Bridget Browne**, **Helen Crisp** and **Hannah Pearson**

49 Institute of Cultural Affairs. What we mean by facilitation. https://ica-uk.org.uk/what-we-mean-by-facilitation/

By the end of this section, you will:

- Understand the role of a facilitator, and what to look out for when facilitating
- Learn how to use the 7 step meeting process for more effective meetings
- Know how appreciative inquiry, working styles and Liberating Structures can support your work.

A facilitator is the person that takes on the role of facilitation in a group. It is a role that anyone can adopt, whether they are a team member, a coach, or a project manager.

As a coach, good facilitation skills are important because you are supporting and enabling a team to deliver improvement work. To do so, you need to be able to effectively facilitate a group in order to avoid or navigate through any issues that arise. For example, your facilitation skills may be needed to make sure a meeting stays on track to achieve its purpose within the time, to make sure all voices are heard and that the right people are in the room, or to help mediate any conflict.

When facilitating groups, it is important to have the right tools for working with people. When coaching teams through improvement, you have group dynamics to consider, as well as individuals' personalities and strengths. Coaching is person-centred, focusing on getting the best for the group. When working with teams, you need the tools to support everyone within the team, to get the best out of them as a whole. It is also important to ensure that you and all participants are clear and agreed on goals or outputs for the session or piece of work.

The following section contains things to look out for when facilitating, and tools to help you manage them.

Facilitating Virtually

Online and face-to-face facilitation may differ

There are many similarities between face-to-face and online conversation and facilitation. For instance, both face-to-face and online meetings need a clear purpose, the right people in attendance who are briefed and ready, and for everyone to be polite and friendly. However, there are also key differences between online and face-to-face meetings when it comes to facilitation.

If working online, try to create a comfortable environment for yourself, with space to write notes or space for a drink. Try to check in with everyone – encourage attendees to have their cameras on, and try to use breakout rooms, if possible (people may find it easier to engage in small groups). Ensure everyone is given an opportunity to speak or share their views, for example by using the 'hands up' function if using MS Teams. You may also wish to ask attendees to use the chat function to add in their thoughts on the topic being discussed.

Where possible, think about how you could make the session more active. Use virtual facilitation tools, such as online whiteboards (e.g. Mural). It can be helpful to give attendees time to think alone before they feed back to the group. Set expectations around interaction in advance, and ensure attendees have enough notice of these expectations. As a rule of thumb, try to have some form of interaction every 15 to 20 minutes. This could take the form of a discussion, task, activity or workshop.

Warm people up

Make it interactive

Agree communication norms at the start of the meeting

Don't abandon all in-person behaviours

Don't be afraid of the technology

Top tips

Warm people up
Icebreakers or small talk can help with this.

Make it interactive
Coaching calls are often the highlight of the week for staff – a break from the daily norm. You should try to make the sessions interactive and fun.

Agree communication norms
From the offset the team should set out the expectations for how the meeting will go. You may use the 7 step meeting process (see page 119) to help with this.

Don't abandon all in-person behaviours
Niceties are important – things like welcoming everyone to the session, doing an introduction to new people, having some small talk (chit chat) and not speaking over one another. Just because it is virtual doesn't mean these should go out of the window. Giving 100% of your energy and focus to the session is key.

Don't be afraid of the technology
As a coach you should be comfortable using, explaining and showing others how to use any piece of technology you use. Think of tools like Jamboard, Mentimeter, Slido, MS Polls, Mural etc. Ensure you give extra time for sessions that use virtual technology. Practise using the tech – seek help and invite others to help facilitate if you don't feel comfortable straight away. And always have a back-up plan!

7 Step Meeting Process

The 7 step meeting process,[50] developed by Executive Learning in 1993,[51] is a methodology for improving the efficiency and effectiveness of meetings. The meeting process adheres to the following timed agenda:

1. Clarify aim/purpose
2. Assign roles
3. Review agenda and times
4. Work through agenda
5. Review meeting record
6. Plan next steps and next agenda
7. Evaluate.

There are a variety of benefits to be derived from using the 7 step meeting process:

- 'Ways of working' are clear for all meeting attendees from the outset, providing clarity about roles and responsibilities
- Ownership for effective meeting outcomes is shared across the whole group
- Rotation of roles promotes group responsibility and supports personal development
- The process helps to keep the group focused and productive, maximising use of time for all attendees
- The final evaluation step offers all participants an opportunity to support continuous improvement of the meeting process.

How to Use the 7 Step Meeting Process

1. **Clarify aim/purpose –** It is very important, at the beginning of the meeting, to clarify and agree the purpose of the meeting. This promotes focus and clarity in the event of conversation drift, or if attendees feel lost in the process. There is also an opportunity here for introductions (new members/guest presenters) and for participants to highlight their reason for attendance.
2. **Assign roles –** There are four roles to be assigned, see table on the next page.
3. **Review agenda and times –** This should be a quick review of proposed agenda items and clarification of late agenda submissions. Best practice would be to ensure that all group members have an opportunity to contribute and agree agenda items beforehand. Once the agenda items are agreed, a short time should be spent agreeing approximate time slots; this should take no more than a few minutes. The group should avoid over-analysis of time slots – these can be renegotiated throughout the meeting depending on progress. You may also wish to agree timings in advance to save time during the meeting.

50 NHS Education for Scotland. 7 Step Meeting Process. https://learn.nes.nhs.scot/3699/quality-improvement-zone/qi-tools/7-step-meeting-process

51 Executive Learning (1993). *Continual improvement handbook: A quick reference guide for tools and concepts*. Healthcare version. Brentwood, TN

4 **Work through agenda –** The majority of the meeting should be devoted to working through agenda items. Steps 1–3 and 5–7 should take no longer than five minutes each, enabling an efficient, productive discussion focused on the agenda items.

5 **Review meeting record –** When the agenda items have been discussed, the leader should take the opportunity to quickly review what has been accomplished, the key actions and responsibility for follow-up.

6 **Plan next steps and next agenda –** Based on what has been accomplished, the leader should ask the group to determine what the agenda items should be for the next meeting. Consequently, the group should leave the meeting with a clear understanding of the purpose and focus of the next meeting.

7 **Evaluate –** This final step supports the group to stay on track and improve future meetings. There are three steps to evaluation Each attendee should allocate a score ranging from 0 (worst meeting ever) to 10 (effective and efficient meeting where expectations were surpassed and progress was made). Attendees should write these down without conferring. The purpose of the scoring is to demonstrate the variation. The next step is to ask each attendee for 'one thing they liked' about the meeting and 'one thing that we could improve'. This last question is extremely useful to support continuous improvement of the meeting process.

Leader	Recorder	Timekeeper	Facilitator
This role is not intended to be a power position, but rather a functional one. It could be the person who arranged the meeting or a volunteer. You could also rotate the role to support development of group members. The leader's role is to start the meeting, ensure that the agenda is followed with smooth transitions between agenda items, and to conclude the meeting.	The recorder role is crucial to ensure that key ideas, themes and actions are recorded for all to see. Recording on flip charts (if in person) or on an online whiteboard or a shared document (if virtual) is encouraged. This ensures transparency, allows others to add their thoughts, minimises duplication and allows late arrivals to catch up quickly.	The timekeeper keeps everyone on track with agreed timings for each agenda item, whilst also making appropriate contributions to any discussion. They should notify the group when they need to move on to the next stage of the meeting. It is then the leader's role to check in with the group to ensure the agenda item is concluded, or to determine if more time needs to be allocated. It is important for attendees to understand that management of time is not the timekeeper's responsibility. It is the responsibility of the entire group.	As much as possible the group should identify someone with accomplished facilitation skills for this role. The role of facilitator can be challenging. As a coach, you may find that you are well-placed to take on this role. The facilitator will observe the meeting progress, ensuring that all attendees have an opportunity to contribute, and that the group remains focused on the agenda and the process.

7 Step Meeting Process Template

7 Steps	Section detail	Timings	Outcome
1 **Welcome and objective of meeting**			
2 **Review roles**	Lead – Timer – Recorder – Facilitator –		
3 **Review agenda and times**			
4 **Work through agenda**			
5 **Review meeting record**			
6 **Plan next steps**			
7 **Evaluate meeting**	What went well... Even better if...		Next time we will...

Working Styles

In everyday life you encounter people with differing personalities and alternative ways of working and behaving. Work by Bolton and Bolton (1996)[52] has identified that broadly speaking, people have four different ways of working – known as their working styles (or people styles). Each working style is a group of habitual behaviours that frequently influence how one acts. People are evenly divided between four working styles; meaning three out of four people in any given room will...

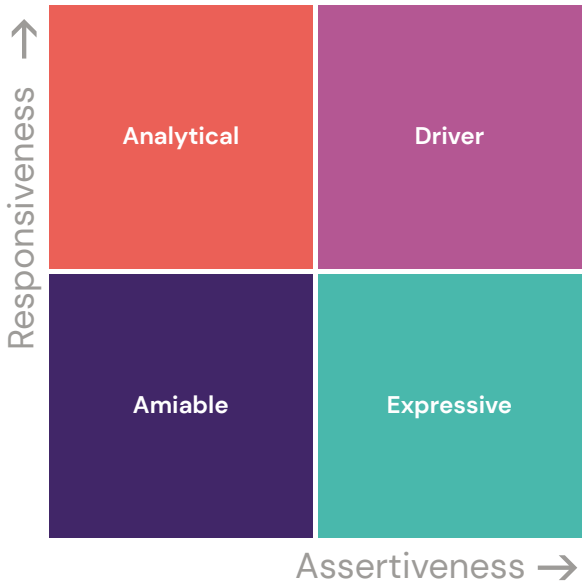
- Think differently from you
- Decide differently from you
- Use time differently from you
- Handle emotions differently from you
- Manage stress differently from you
- Communicate differently from you
- Deal with conflict differently from you.

There is no link between one's style and success or failure. The working styles model fosters increased self-awareness and self-acceptance, as well as a greater understanding and acceptance of others.

The four working styles

There are four different working styles: Analytical, Driver, Amiable and Expressive. Each has its strengths, weaknesses, and unique approach to overcoming challenges, managing interactions, and achieving goals.

The working styles model groups people based on how *assertive* and how *responsive* they are. A person's level of assertiveness is the degree to which their behaviour is typically seen by others as being forceful or directive. A person's level of responsiveness is the degree to which they are seen by others as showing their own emotions and demonstrating awareness of the feelings of others.



52 Bolton, R. and Bolton D. G. (1996). *People Styles at Work...And Beyond: Making Bad Relationships Good and Good Relationships Better.* Amacom

A summary of the different characteristics of each working style is shown below.

Analytical

- Cautious actions and decisions
- Likes organisation and structure
- Dislikes involvement with others
- Asks many questions about specific details
- Prefers objective, task-oriented work environments
- Wants to be accurate and therefore relies too much on data collection
- Seeks security and self-actualisation

Driver

- Takes action and acts decisively
- Likes control
- Dislikes inaction
- Prefers maximum freedom to manage self and others
- Cool and independent, competitive with others
- Low tolerance for feelings, attitude, and advice of others
- Works quickly and efficiently by themselves

Amiable

- Slow at taking action and making decisions
- Likes close, personal relationships
- Dislikes interpersonal conflict
- Supports and 'actively' listens to others
- Weak at goal-setting and self-direction
- Demonstrates excellent ability to gain support from others
- Works slowly and cohesively with others
- Seeks security and inclusion

Expressive

- Spontaneous actions and decisions, risk taker
- Not limited by tradition
- Likes involvement
- Generates new and innovative ideas
- Tends to dream and get others caught up in the dream
- Jumps from one activity to another
- Works quickly and excitingly with others
- Not good with follow through

While you may relate to some or all of these styles, typically there will be one that will be more dominant for you. The Working Styles questionnaire can help you identify your working style.

Knowing your preferred working style can help you communicate and work more effectively with others. When you are aware of the way you prefer to work, you can modify your behaviour to improve your interactions with someone whose style may be different from yours. Being aware of how the people you are coaching might approach situations can provide insight into how best to interact with them. Likewise, being aware of your own biases or habits can help you modify your behaviour to make you more productive and your relationships more effective.

Using your style with other styles

Your style → / ↓ Their style	Analytical	Driver	Amiable	Expressive
Analytical	Establish priority of tasks to be done. Commit to firm timeframes for your work and stick to them.	Take a deep breath, relax and slow down. With analytical people, you need to demonstrate you have considered all or most options or outcomes before moving ahead.	Cut short the social hour and get right down to the specifics. The more information you have to support your position, the better.	Translate your vision into specific tasks or goals. Involve analytical people in research and developing the details of the plan of action.
Driver	Organise your work around major themes; prepare 'executive summaries' with headings or bullets that state the conclusions first and supporting data and analysis second.	Remind each other of your similarities and your need to adopt qualities of the other styles.	Don't take anything personally. Getting results is what counts with drivers; be decisive and dynamic. Emphasise the bottom line.	Take time to think about what your vision really is; translate it into actionable steps with objectives and timelines.
Amiable	Start off on a personal note, gravitate to project specifics and expectations; emphasise the greater good of the project.	Spend time up front gaining trust and confidence; be inclusive. Be sure to be specific about deadlines, even when it seems obvious.	Laugh with each other about how important it is being relational. Then focus on what we really need to accomplish here and do it.	Tell them how important the team concept is to making your vision a reality. Give amiable people the job of team-building to make the dream come true.
Expressive	Jazz up your presentation; try to think of the big picture. Involve expressive people in developing the 'vision' or marketing of the plan.	Be patient and try to work with a flip chart to harness creative spirits. Emphasise timelines and due dates. Build in flexibility to allow the free rein of creativity.	Engage the expressive with appreciation of their vision and creativity. Harness this energy to deal with pesky but important details that only they can address.	Remind each other of your tendency to generate a lot of ideas without thinking through how to implement them.

Source: Labor Management Partnership[53]

53 Labor Management Partnership. Working Styles Assessment. http://oml.eular.org/sysModules/obxOml/docs/ID_103/01_Working-Styles-Assessment.pdf

Liberating Structures

Henri Lipmanowicz and Keith McCandless started to develop Liberating Structures[54, 55] in 2002, and continue to build on and develop new structures today. Liberating Structures are based on the theory that the conventional structures we use in groups to communicate, make decisions and generate ideas do not always work. They are either too structured and inhibiting (for example, an individual providing a status update to a group by talking whilst others 'listen' and do not contribute); or they are too unstructured and loose (for example, an open discussion). These conventional structures tend to favour people that are extroverted and can 'think by talking', whereas more introverted people feel they are not able to take part or fully contribute to the discussion.

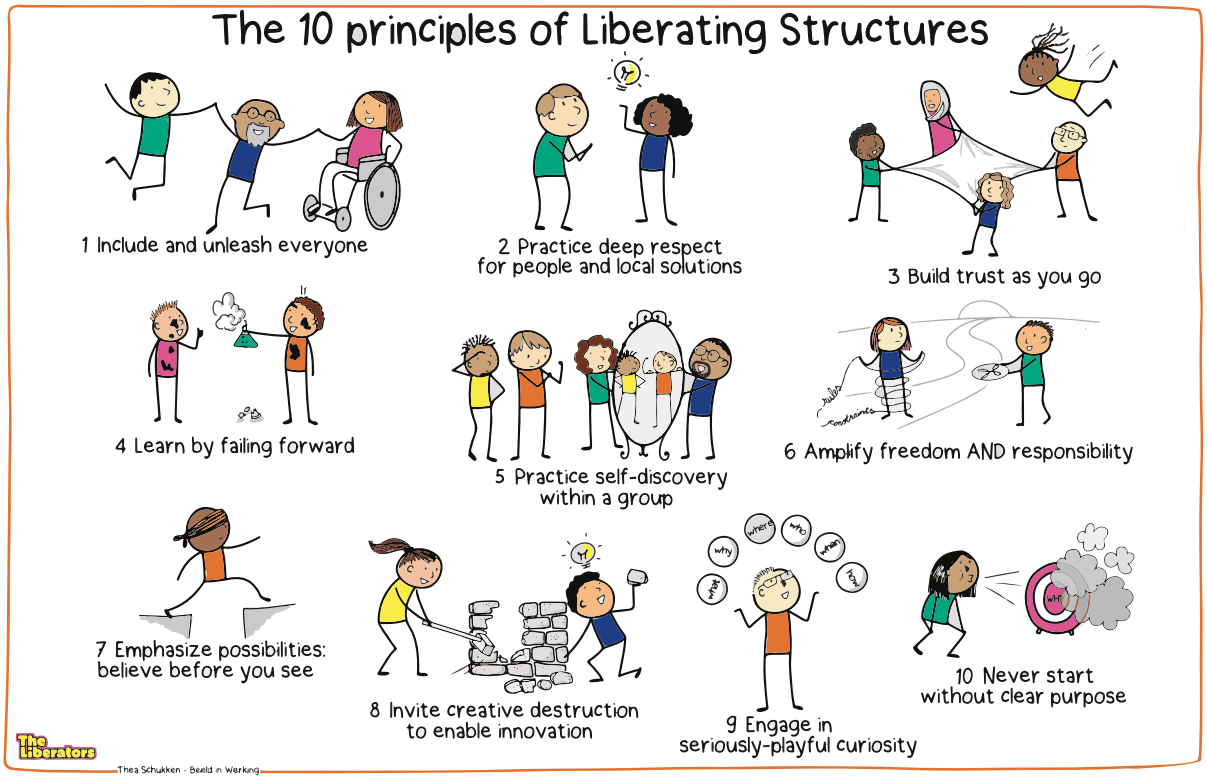
As improvement coaches, we aim to gain the input of the whole group, make shared decisions, and share knowledge to innovate and improve. Liberating Structures are a useful tool to support this.

What are Liberating Structures?

Liberating Structures are a collection of 33 microstructures[56]. They are simple and easy to learn, and are best learnt by experiencing them. Their purpose is to quickly foster lively participation in groups of any size. It is important to maintain the ten principles of Liberating Structures. In particular, ensure that you always have a clear purpose before starting.

Liberating Structures are often used together as a group of structures referred to as a 'string'. For example, using the structures below, we may select to use 1-2-4-all integrated into a TRIZ exercise.

Liberating Structures are open source. If you would like to learn more about Liberating Structures visit www.liberatingstructures.com.



54 Liberating Structures. www.liberatingstructures.com
55 The Liberators: Unleashing Organisational Superpowers. www.theliberators.com
56 Liberating Structures. Microstructures and Design Elements. www.liberatingstructures.com/design-elements/

Examples of Liberating Structures and How To Use Them

1-2-4-all

This is the most common and versatile Liberating Structure. It can be used as a tool for reflection, to generate or spread ideas, to open up conversations, or to come to a decision on what to do next.

It is powerful as it allows everyone in a group time to reflect on the question. Joining into pairs creates a space where individuals are comfortable to share. Moving into groups supports the best ideas to come forward. The structure can be used to generate and sort ideas in a short space of time.

How to use 1-2-4-all

Step 1
Set the question or topic of discussion. This should be an open-ended question (for example: what do you feel is the biggest challenge? What ideas do we have to improve? How will you move forward?).

Step 2
One minute silent reflection (1). Invite the group to take one minute in silent reflection on the topic presented and to generate potential ideas individually.

Step 3
Two minutes in pairs (2). Invite the group to share their individual ideas in pairs, and to generate more ideas to build onto the first round.

Step 4
Four minutes, two pairs together (4). Invite pairs to share their ideas with another pair (creating a group of four). Ask the group to pay attention to similarities and differences between the ideas.

Step 5
Five minutes (all). Invite every group of four to share one idea that stood out, or one point that felt important. Ask the groups to share any patterns or themes they noticed.

TRIZ

In improvement, there is a risk that we keep adding new things to do. Each new idea may be adding one more task to the task list, one more checklist, one more form to complete. TRIZ is a tool that supports groups to consider unproductive behaviours or tasks that could be stopped. It can also be a fun way to generate creative change ideas, as set out below.

How to use TRIZ

Step 1
Organise into groups of four to eight people.

Step 2
Introduce TRIZ and briefly explain the structure. TRIZ has three rounds, each of ten minutes. At this point explain the first round, but do not explain further rounds, so as not to limit creativity.

Step 3
Together, identify one unwanted result (for example, the opposite of what you hope your work will achieve). For example, we set out to increase patient involvement in QI, therefore our unwanted result is 'to have zero patient involvement in QI work'.

Step 4
Give the group ten minutes to make a list of all they could do to ensure they achieve the unwanted result identified in Step 3 – i.e. what do we do that prevents patients from being involved in QI work? Invite teams to be creative and keep it realistic.

Step 5
Give the group another ten minutes to make a second list of the activities they are already doing that resemble or closely resemble the items on the list created in Step 4. It is important to look for and identify themes or patterns, and to share these with the group.

Step 6
Give the group another ten minutes to generate change ideas relating to the list created in Step 5. These ideas could include activities they will stop doing.

15% Solutions

15% solutions can be used to help support a team to move to action. It is used to identify actions, no matter how small, that everyone can do immediately. It can be used to create momentum when team members feel powerless or stuck, by supporting them to focus on what is within their sphere of influence.

How to use 15% solutions

Step 1
In relation to the group's challenge, ask: 'What is your 15%? Where do you have discretion and freedom to act? What can you do without more resource or authority?'

Step 2
Each person develops a list alone (5 mins).

Step 3
Individuals share their ideas with a small group (two to four members). Each person should share their ideas in turn, with each allowed three minutes to share.

Step 4
Group members provide consultation to one another, by asking clarifying questions and offering advice. The group should spend five minutes on each individual and their ideas, with members asking questions in turn.

You may also choose to replace steps 2–4 with 1-2-4-all.

What, So What, Now What (W3 Debrief)

This structure supports teams to reflect on a shared experience. It supports every voice being heard whilst also developing a new direction. It follows three simple stages: collecting facts about *What* happened, making sense of these facts with *So What* and finally moving to action with *Now What*. In QI it can be a useful debrief tool to explore a PDSA cycle.

How to use W3 Debrief

Step 1
In relation to the group's challenge, ask: '*What* happened? What did you notice? What facts or observations stood out?'

- Each person develops a list alone (1 min).
- Individuals share their list with a small group (two to four members). Allow three to eight minutes total.
- Group members provide notable facts to the whole group. These are collected on flipchart or similar (2–3 mins).

Step 2
Ask the group to reflect on '*So What?* Why is that important? What patterns or conclusions are emerging? What hypotheses can I/we make?'

- Each person develops a list alone (1 min).
- Individuals share their list with a small group (two to four members) (3–7 mins total).
- Group members provide notable patterns, themes, hypotheses and conclusions to the whole group. These are collected on flip chart or similar (2–5 mins).

Step 3
Ask the group to reflect on '*Now What?* What actions make sense?'

- Each person develops a list alone (1 min).
- Individuals share their list with a small group (two to four members) (3–7 mins).
- Group members share and discuss actions with the whole group. These are collected on flip chart or similar (2–10 mins)

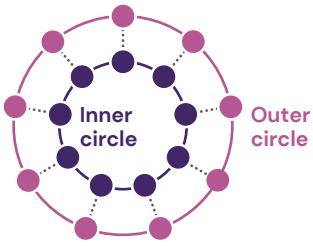
Mad Tea

Mad tea, also known as wild tea, is often used as an icebreaker. It can be used to create connectivity and provoke a deeper reflection amongst team members. In this Liberating Structure, group members are invited to finish a set of open questions that relate to opening up conversations or shaping your next steps together.

How to use mad tea

These instructions are for an in-person setting. For a virtual setting, you will need to consider how to make use of breakout rooms to support this structure.

Step 1
Ask everyone in the group to form two concentric circles (one inner circle and one outer circle), of equal numbers, with the members of the two circles facing each other. Each person should find one other person standing directly across from them, face to face (so that each member of the outer circle is facing a member of the inner circle). Describe the structure: one person completes the sentence on the screen while the other expresses keen interest and curiosity.



Step 2
Ask one person in each pair to finish sentence #1 (30 seconds), then invite the other person in the pair to do the same (30 seconds).

Step 3
At one minute, ask participants in the outer circle to move two people to the right.

Repeat steps 2 and 3 for each additional question.

Open questions

Examples of open questions from liberatingstructures.com:

- What first inspired me in this work is...
- Something we must learn to live with is...
- An uncertainty we must creatively adapt to is...
- What I find challenging in our current situation is...
- Before we make our next move, we cannot neglect to...
- Something we should stop doing (or divest) is...
- What I hope can happen for us in this work is...
- A big opportunity I see for us is...
- If we do nothing, the worst thing that can happen for us is...
- Something we need to research is...
- A bold idea I recommend is...
- A question that is emerging for me is...
- Something I plan to do is...

Draw together

This structure is used to help access hidden knowledge, such as feelings, attitudes and patterns, that are difficult to express in words. The structure uses five easy-to-draw symbols to help a group evoke ideas and understanding about what is possible. It provides an avenue for creative thinking and expression. It can feel 'too creative' to use with some groups. It may be helpful to frame this as an opportunity to have fun whilst exploring the challenge at hand.

How to use draw together

Step 1
Introduce the idea of drawing together by drawing and describing the meaning of each symbol (5 mins).

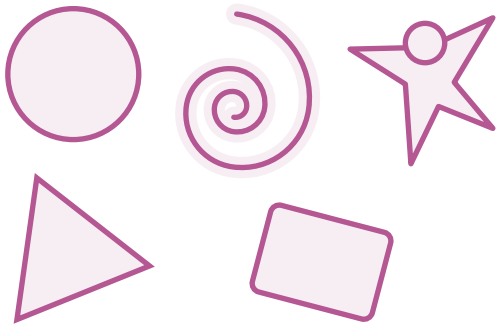
Step 2
Invite participants to practise drawing the five symbols: circle, rectangle, triangle, spiral, star person (5 mins).

Step 3
Invite participants to draw their journey through a shared challenge, through change, or towards innovation. Reinforce that drawing should take place in silence, and that the drawing should contain no words or other symbols (10 mins).

Step 4
Invite participants to create a second version, in which they build on their story by dramatizing the size, placement, and colour of the symbols they have used (10 mins).

Step 5
In pairs, ask participants to share their drawing with another individual, who will interpret their drawing. The person who has done the drawing does not speak (5 mins). Switch places and repeat (5 mins).

Step 6
Ask the whole group, 'Together, what do the drawings reveal?' You could usea 1-2-4-all with larger groups (5 mins).



- Circle = wholeness or unity
- Rectangle = support
- Triangle = goal
- Spiral = change
- Star person [equidistant cross] = relationship.

Liberating Structures

CASE STUDY

Scenario

An improvement team has been working to improve flow within an Emergency Department and are starting to see improvement in their data. Whilst sustainability has been considered during the project development, the project lead is concerned that the changes will not be sustained once the dedicated QI project and coaching support is stepped down, and the project returns to business as usual.

The coach supported the team to use TRIZ to consider how they could support sustainability in their improvement project.

Step 1
The project team of six got together.

Step 2
The coach introduced TRIZ, briefly explained the structure, and confirmed with the team their goal for their time together: *'to consider and support sustainability in their improvement work'*. The group agreed this goal for the session.

Step 3
The coach then suggested that the team consider this from an opposing angle using TRIZ, and proposed an unwanted result for the team to consider: '*What are all the things we can do to make sure our improvements don't stick and there is zero team memory about the change?*'

Step 4
The team then generated the list below:

- Take down the QI Visual Display Board
- Be negative about our workload
- Be negative about the impact of improvement
- Make sure it's not on anyone's agenda
- Don't review the data
- Discredit any benefits we have seen
- Focus all our changes on one-off education programmes
- Don't promote the work we have done
- Don't tell new starters about our processes
- Make QI one person's responsibility
- Don't make time for reflection or discussion about improvement.

Step 5
The group then considered what they were at risk of doing or already doing, and identified the following:

Don't do	Already doing
• Take down the QI Visual Display Board	• Limited updating of the QI Visual Display Board. It had become fairly static with no recent updates.
• Make sure it's not on anyone's agenda • Don't review the data	• QI was a standalone meeting and if the project group stopped meeting, there was no intent to discuss the work in another meeting. • If the project group stopped meeting, there would be no identified place to review the data (although this would be done from a performance point of view). There would be no feedback to the wider team.
• Focus all our changes on one-off education programmes • Don't tell new starters about our processes	• There were no plans in place to consider educating new starters on the new processes.
• Make QI one person's responsibility • No time for reflection and discussion about improvement	• The project lead was viewed as 'responsible' for improvement. • There was no dedicated space for improvement to be discussed beyond the project team meeting.

Step 6
Using 15% solutions, the team considered what would be within their control to support sustaining their improvements, and identified the following actions:

- Process discussion to be included in induction for new starters
- Improvement to be added to the team's regular meetings so as not to be seen as a standalone piece of work
- The improvement board to be moved into the team meeting room where it can be used as a point of discussion during meetings
- Key measures to be regularly updated on the QI Visual Display Board and used to support sustainable change.

Appreciative Inquiry

Root cause analysis and other conventional retrospective risk analysis models use a deficit-based problem solving approach. They look at clinical systems or processes and ask what is wrong with them. Appreciative inquiry focuses on doing more of what is already working, by asking 'what already works well and how can we build on that?' instead of 'what is the problem?'.

Appreciative inquiry has been used in many sectors and bodies for many decades, including business, education, military, prisons, religious organisations and more recently in healthcare.[57] The table below summarises the differences between deficit-based problem solving (including root-cause analysis) and appreciative inquiry.

Eventually, an organisation focused on deficit-based problem solving (i.e. looking at 'what is the problem?'), will reduce morale, staff goodwill and foster a culture of negativity.[58]

Deficit-based problem solving vs appreciative inquiry

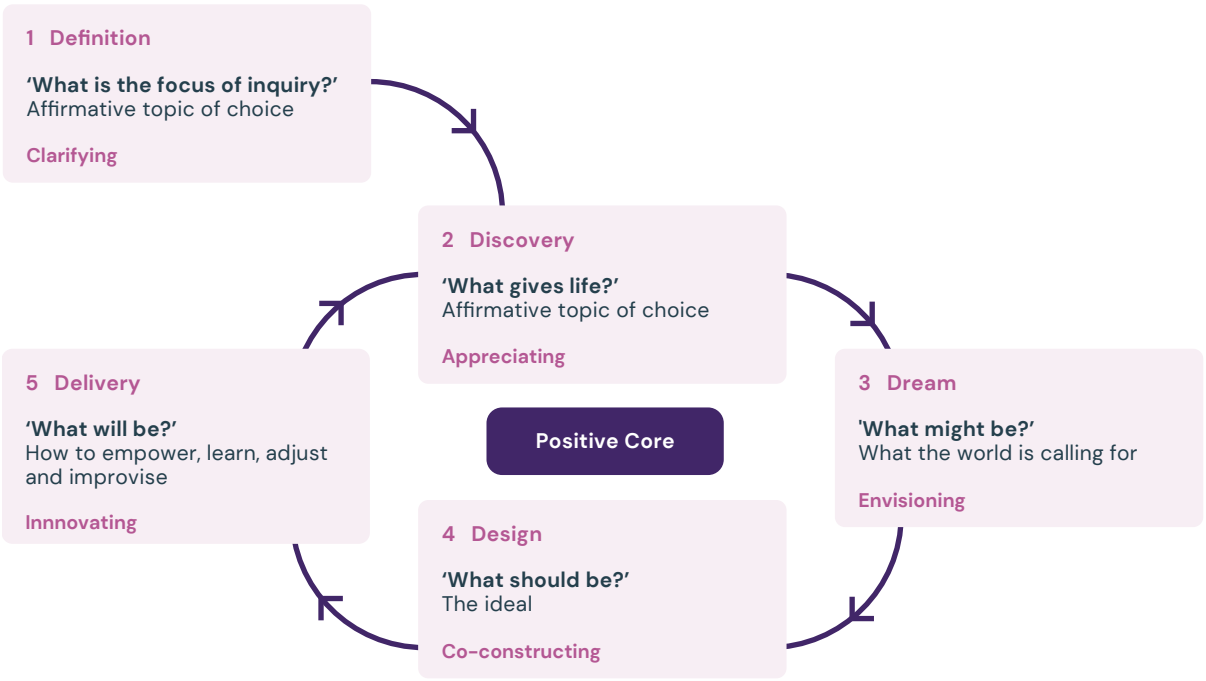
Deficit-based problem solving	Appreciative inquiry
Begins with critique of failure	Begins with recognising success
Diagnosis of problem (from detached viewpoint)	Looks at what works well (as a frontline service provider)
Focuses on the cause of a problem	Focuses on organisation's performance at the very best
Aims to reduce problems	Aims to move towards the best
Encourages defensive behaviour	Encourages openness
Assumes organisations (and people) are sets of problems to be overcome	Assumes organisations are sources of creativity and innovation

Source: Scottish Social Services Council[59]

57 Trajkovski, S., Schmied, V., Vickers, M. and Jackson, D. (2013). Using appreciative inquiry to transform health care. *Contemporary Nurse.*
58 Cooperrider, D. and Whitney, D. (2005). *Appreciative Inquiry: A Positive Revolution in Change.* Berrett-Koehler Publishers
59 Scottish Social Services Council. Appreciative Inquiry resource pack. https://lms.learn.sssc.uk.com/course/view.php?id=14#section-0

How To Use Appreciative Inquiry

Appreciative inquiry, , as developed by Cooperrider and Whitney (2005), is based around five different phases: Definition, Discovery, Dream, Design and Delivery (known as the 5D cycle). The 5D cycle (shown below) offers a practical framework for teams to explore the things that work well within their work area.[60]



The five stages are outlined below:

1 **Define**
It is important to define the focus of the inquiry – what the system wants more of. Define clarifies the purpose, content and what needs to be achieved. Teams should ask themselves 'what topic do we want to focus on?'.

2 **Discovery**
Appreciate the best of what is. Discovery is based on open and honest dialogue, where all members of the team discuss the things that work well and the organisation at its best.

3 **Dream**
Envisioning uses past the achievements and successes identified in the Discovery phase to imagine new possibilities and envisage a preferred future.

4 **Design**
Design brings together the stories from Discovery with the imagination and creativity from Dream. We call it bringing the 'best of what is' together with 'what might be', to create 'what should be – the ideal'.

5 **Delivery**
Creating 'what will be'. The fifth stage in the 5D model identifies how the Design is delivered, and how it's embedded into groups, communities and organisations.

At the centre of the model is a positive core. It is important to engage a positive, can-do mindset throughout this process and not be dismissive of others' thoughts or feelings.

60 Cooperrider, D. and Whitney, D. (2005). *Appreciative Inquiry: A Positive Revolution in Change.* Berrett-Koehler Publishers.

Time should be set aside as a team to work through the five phases of the framework. It might be better to space out sessions – for example, completing the Definition and Discovery phases first, the Dream and Design phases next and the Delivery phase last. This would enable the team to gather further information between the three sessions, source additional input from the wider team, and horizon-scan for new ideas.

You should aim to use open inquiry questions throughout the exercise, such as:

- What was the best bit about…?
- What made it possible?
- What did you value the most about…?
- What did you do well?
- What was important about…?
- What would make it even better?
- Who was supportive/helpful in this?
- What do you think you are able to build on?
- What are the possibilities in relation to… that you might not have considered before?
- What might the impact of… be?
- How do you feel about this?
- What might you achieve here?
- What options can you create here?
- If you had one wish for… what would it be?

Ultimately, the end goal is to deliver a change to practice that builds upon something that already works well. You should work with an open and collaborative mindset, and use QI approaches to implement and embed change.

Appreciate Inquiry Template

STEP 1 Definition

What is the focus of the inquiry?

STEP 2 Discovery

What is it like at its best? What makes it possible? What does it look or feel like? What's important? What do you value the most?

STEP 3 Dream

What could it be like? How can we make that possible? What would we be doing differently? What would others be doing differently? How does it feel?

STEP 4 Design

What has been our major learning, insight or discovery so far? How can we bridge the gap between the 'now' and the ideal? What do we need to do? What do others need to do? What further information do we need? What do we need more clarity about?

STEP 5 Delivery

How can we embed this new way of working into practice? How can we communicate this to the wider team to ensure success? What resistance might we face and how do we limit that? What data are we collecting to evaluate the impact? What's next?

Group Dynamics

Authors
Sidney Beech, Helen Crisp, Samantha Machen and **Hannah Pearson**

By the end of this section, you will:

- Recognise the stages that a group working on QI is likely to go through
- Understand the phenomenon of groupthink, and strategies for tackling it
- Learn what makes a psychologically safe environment, and why it matters.

Common Challenging Characters in a Team

When working with a team it is important to understand the dynamics. You may come across challenging characters. We have highlighted seven common challenging characters, and how we would address each one:

Distractor

It's important to keep discussions on task. Make use of your 'car park' to not lose track. Make use of the agenda and focus of the meeting.

Murmurer

Whispering to someone else. Ask if they would like you to clarify anything. They may be trying to understand without interrupting the group. Invite discussion in the group.

Moaner

Negativity can be a distraction for the rest of the group.

Allow them to share their concerns and ask what they feel they can do about it.

If needed, commit to meeting outside the group to discuss.

"That won't work"

Ask them to hold making a decision until the end of the discussion. If the rest of the group believe the idea may work make sure that is clear in discussion.

Joker

It's good to have a little fun. Try to strike the right balance. If needed, remind the group of the focus and task at hand.

Dominator

Thank them for their contribution and redirect the conversation to the rest of the participants by immediately asking the others in the group for their thoughts.

The quiet one

Bring into the group by inviting them to contribute.

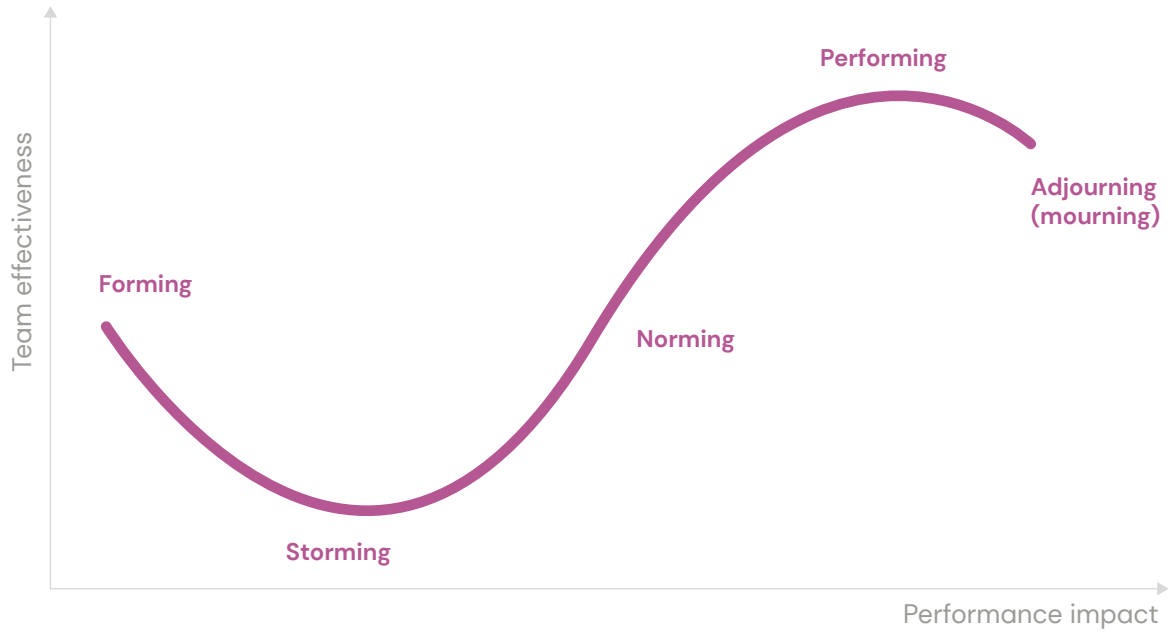
Avoid surprise, for example you may say "after this discussion, I would like to hear from…".

If you suspect they are not feeling confident you can ease them into the conversation by providing a start point you feel they could respond to. For example "I am interested in your view with your experience in…".

Group Development

QI work won't always run smoothly. Groups usually need to go through different stages before completion of an improvement effort. Tuckman[61] identified five different stages. This can be mapped to The Six Stages of Leading QI Work (page 18) as below:

- **Forming**
  Start of the project and *identification of the quality issue*. The group is characterised by anxiety and a focus on the leader
- **Storming**
  Teams may feel overwhelmed or daunted by the improvements needed as they *understand the current situation*. The group is characterised by a sense of conflict and with polarisation of opinion
- **Norming**
  Begin to make sense of what work is needed using the Model for Improvement. *Measuring for improvement* and *Developing a strategy and change ideas*. A sense of group cohesion
- **Performing**
  Seeing the results of their improvement efforts by *small scale testing*. The group is characterised by a focus on the task that it was created to achieve
- **Adjourning (mourning)**
  Sustaining improvement. Adjournment of the group.



As a Quality Coach, try to identify if any teams you are working with are following a similar pattern to the sequence above. If they are, try not to be too concerned; these difficult stages are commonplace for a team finding their feet. It can be helpful to normalise this and talk to your own experiences of QI and change.

61 Tuckman, B.W. (1965). Developmental sequence in small groups. *Psychological Bulletin.*

Groupthink

A team working on improvement will be made up of individuals with different professional backgrounds, seniority, and experience. As such, each person will play a different role in the group. As a Quality Coach, you should be aware of these differences, as they may provide important context. For example, it has been argued that multi-disciplinary teams struggle with teamwork at times due to their divergent roles and responsibilities. Be aware of this if you can be. There may be benefits to defining roles and responsibilities early on to avoid any blurred lines between roles. The article Interprofessional teamwork: professional cultures as barriers[62] explores this further.

Groupthink Leads To Worse Outcomes

Groupthink is a psychological phenomenon in which people strive for consensus within a group. In many cases, people will set aside their own personal beliefs or adopt the opinion of the rest of the group.

People who are opposed to the decisions or overriding opinion of the group as a whole frequently remain quiet, preferring to keep the peace rather than disrupt the uniformity of the crowd. The phenomenon can be problematic. Even well-intentioned people are prone to making irrational decisions in the face of overwhelming pressure from the group.

The suppression of individual opinions and creative thought can lead to poor decision-making and inefficient problem-solving.

There are three main 'causes' for groupthink:

Cohesion

The group avoids any conflict, avoids critical reactions to decisions, and works to maintain friendly relationships at all costs. The group becomes more important than the individual.

Structural faults

The group is organised so that it becomes quite insular, focuses on specific areas of action, and lacks impartial leadership, with leaders that plan in advance what will be discussed, for how long and only ask for opinions that agree with their own. This is combined with a lack of structure in discussions, and the group is often similar in social background, ideas, ideology and in some cases, schooling.

Situational context

Groupthink can sometimes occur in a highly stressful situation, with possible external threats and some group members coping with stress in irrational ways.

62 Hall, P. (2005). Interprofessional teamwork: professional cultures as barriers. *Journal of Interprofessional Care.*

Some strategies for preventing groupthink include:

Structure the decision-making process

Ensure everyone is aware of the process. Consider gateway criteria or some other way to weigh up and assess the options (perhaps you could use SWOT analysis). You may allow people to use silent brainstorming so individuals are encouraged to contribute.

Use Liberating Structures

Provide individuals with some independent time to generate their own ideas before regrouping in smaller groups, then coming together as one large group.

Embrace diversity

Creating a team that has broad diversity of thought, and is capable of listening to, responding to, and, where appropriate, embracing opposing views.

Increase personal accountability

Increasing personal accountability for the decisions participants in the group take, to counter the motivation towards conformity, and to give participants personal responsibility for their actions.

Think about what level of collaboration is needed

Some situations don't need an exhaustive collaborative approach. As a coach you may need to switch to a directive approach, or support the leader to take decisive action.

Use outside expertise

Encourage the team you are coaching to seek the input of people with subject matter expertise. Third parties can provide objective and independent feedback.

Sense check

Often it can be helpful to sense check your approach with others, particularly those operating in the service/process and those in receipt of the service (for example, patients).

Benefit from being the outsider

Outsiders can offer a fresh perspective and give a clearer view of organisational issues. The benefit of this is that their ideas may not be constricted by current approach or historical issues – for example, past failed change initiatives. As a Quality Coach, you are the person who 'holds' QI for the group, and you can separate the improvement work from the day-to-day issues.

Conflict

Think About How You Might Address Conflict

As identified earlier, conflict isn't necessarily a bad or surprising aspect of team working. Conflict is arguably unavoidable, and coaches need to learn how to manage it. There are three main forms in QI:

1. **Task conflict –** includes differences of opinion, viewpoints and ideas. Some task conflict can be beneficial to the change process as it enables people to discuss a more diverse range of views and ideas before making decisions.
2. **Process conflict –** involves disagreement over the logistics of achieving an outcome or change. For example, who takes on which responsibilities or who delegates to whom.
3. **Relationship conflict –** often the most destructive form of conflict and takes the form of perceived interpersonal incompatibility between people. This may be on the basis of personal values, morals or personality characteristics.

Signs of conflict

- Reduced motivation or morale
- Fewer people volunteering for tasks
- An increased reluctance to put forward ideas or discuss feelings openly
- 'Them' and 'us'
- Fewer people attending or contributing in meetings
- Avoidance between team members

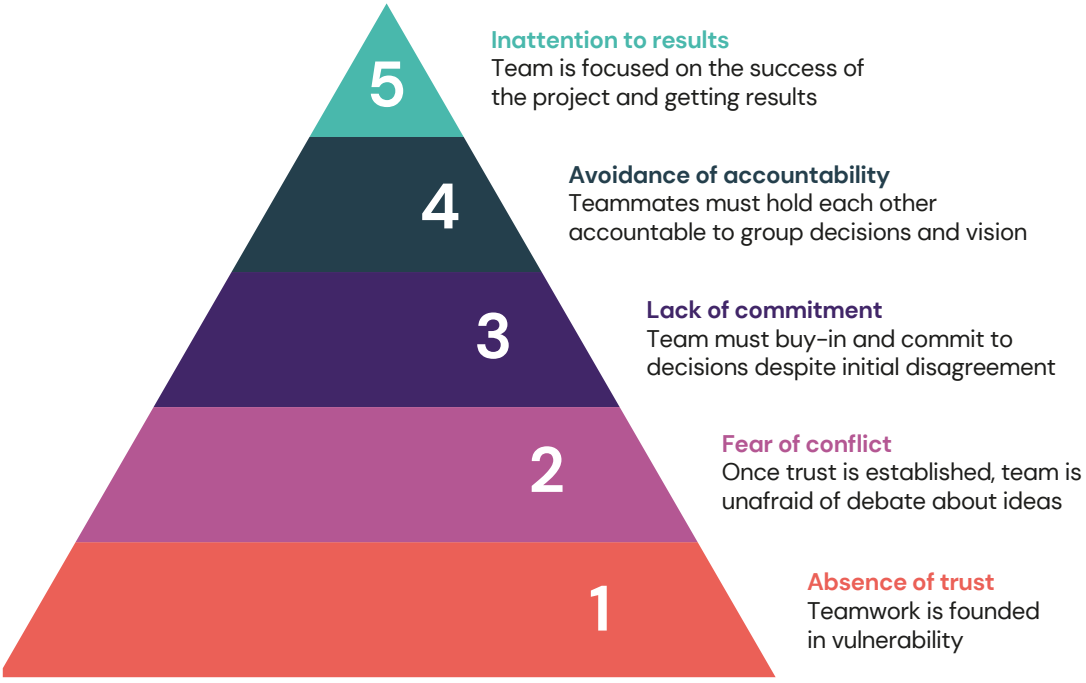
Further reading on conflict: Developing a Forced-Choice Measure of Conflict-Handling Behavior: The 'Mode' Instrument.[63]

63 Kilmann, R. and Thomas, K. (1977). Developing a Forced-Choice Measure of Conflict-Handling Behavior: The 'Mode' Instrument. *Education and Psychological Measurement.*

Think about the potential dysfunction in a team

Patrick Lencioni famously outlined the Five Dysfunctions of a Team in the book of the same title (2002). In this model, each dysfunction has a direct impact on a team's overall performance and creates barriers to progress. The five dysfunctions are shown in the graphic below.

Five dysfunctions of a team



Source: Lencioni (2002)[64]

As a coach, you should evaluate whether any of these are present in the teams you are coaching. Ask the questions:

1. Do your team members openly and readily disclose their opinions?
2. Are your team meetings compelling and productive?
3. Does your team come to decisions quickly and avoid getting bogged down by consensus?
4. Do your team members confront one another about their shortcomings?
5. Do your team members sacrifice their own interests for the good of the team?

If you answer 'no' to any of these, then more focus may be required.

The table on the next page outlines the problem and possible solutions for each dysfunction.

64 Lencioni, P. (2002). *The Five Dysfunctions of a Team: A Leadership Fable*. John Wiley & Sons.

Dysfunction	Problem	Solution
Absence of trust	Occurs when team members are reluctant to be vulnerable with one another. They may be unwilling to admit to mistakes, weaknesses or ask for help.	As a coach, you can set an example. Admit to your own weaknesses and limitations, own up to mistakes, share past experiences. Encourage the project lead to model this behaviour and ask for help. When you take the lead, others will follow. If this doesn't work, invite team members to focus on their strengths, with the option to discuss weaknesses later. These habits will gradually change the team culture and this will slowly help to build trust.
Fear of conflict	Members will be hesitant to voice their opinions and concerns. The team may choose to ignore controversial or challenging topics, even if they have potential to determine the team's success. A fear of conflict can lead to more interpersonal conflict and personal attacks. Staff may use 'back channels' to discuss topics away from specific individuals.	Establish that conflict is welcome and purposeful. Define what healthy conflict looks like by praising healthy examples or giving corrective feedback if conflict veers towards unhealthy. You may wish to nominate a 'devil's advocate' during the meeting. Their role is to discuss the pros/cons of topics discussed. This shows that voicing opinions and opposing ideas is a good thing.
Lack of commitment	If people disagree (but are too afraid to raise an opposing view), then they are unlikely to commit. Lack of commitment can make team members unhappy and disengaged.	As a coach, make a rule to summarise key decisions made during the meeting and the rationale for taking them. Discuss what should be communicated more widely. Facilitate the commitment by encouraging the team to discuss possible pitfalls and worst-case scenarios; again, clarity is the basis for commitment. Define clear deadlines not only for the actions, but for decisions themselves.
Avoidance of accountability	When teams don't commit to a clear plan of action, even the most focused and driven individuals hesitate to call their peers out on actions and behaviours that may seem counterproductive to the overall good of the team. This allows for mediocrity, poor performers to slip by and the leader to become the sole source of discipline.	As a coach, encourage the team (and particularly the project lead) to hold regular progress review meetings. Reward team achievements at these meetings and pick up on things that need further attention.
Inattentive to team objectives	Team members naturally tend to put their own needs (ego, career development, recognition, etc.) ahead of the collective goals of the team when individuals aren't held accountable. If a team has lost sight of the need for achievement, the improvement work ultimately suffers.	The team must have clear metrics to assess results. This is ideally using SPC or run charts to support the conversation around PDSA cycles. Use of outcome, process and balancing measures ensures a broader discussion around progress. Reward team achievements.

Psychological Safety

What is psychological safety?

Psychological safety (first coined in 1965 by MIT professors Edgar Schein and Warren Bennis) is the belief that you won't be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes (CCL, 2023).[65] If a team has a good level of psychological safety, everyone in the team will feel comfortable to speak up, offer ideas, and ask questions without fear of being punished or embarrassed (NHS Horizons, 2021).[66] Psychological safety doesn't mean that everybody is nice to each other all the time. It means that people feel free to 'brainstorm out loud', voice half-finished thoughts, openly challenge the status quo, share feedback, and work through disagreements together.

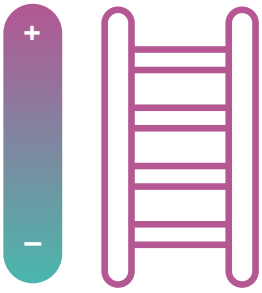
Why psychological safety is important

Psychological safety is important because it allows teams to benefit from diversity in knowledge. Teams, groups and organisations benefit from having a variety of views and knowledge from a range of people with different backgrounds and life experiences. If there is not a good level of psychological safety, people will be less likely to speak up, challenge or offer new ideas. That means that the group will focus on information known by most members; this will likely influence their judgement and discussion, and means they are unlikely to benefit from different opinions – the 'common knowledge' effect. (APA, 2023).[67]

Psychological safety ladder

You can think of psychological safety as a spectrum. When working with teams it may be helpful to think about where they would fit on this ladder, and whether you need to promote psychological safety.

High level of psychological safety
People feel comfortable to share ideas and views. Disagreement is not avoided and everyone participates in the discussions.



Low level of psychological safety
Not all group members are participating. People agree withthe first thing the most senior person says, and others are told that they are wrong.

Why QI work needs psychological safety to thrive

Psychological safety is important in improvement because people should feel safe and comfortable to be able to contribute their views and ideas. This creates better opportunities for collaboration and discussion, meaning that improvement ideas are more likely to be well thought through – rather than someone suggesting something which will not work, but do not feel able to challenge. A good level of psychological safety creates a safe space for brainstorming, which is a key step in improvement work.

65 Center for Creative Leadership. What is Psychological Safety at Work? www.ccl.org/articles/leading-effectively-articles/what-is-psychological-safety-at-work/#:~:text=Psychological%20safety%20is%20the%20belief,taking%20risks%2C%20or%20soliciting%20feedback

66 NHS Horizons (2021). Psychological Safety in the Real World of Health and Care. https://horizonsnhs.com/psychological-safety-2021/

67 American Psychological Association. Common Knowledge Effect. https://dictionary.apa.org/common-knowledge-effect

Identifying the level of psychological safety within a team

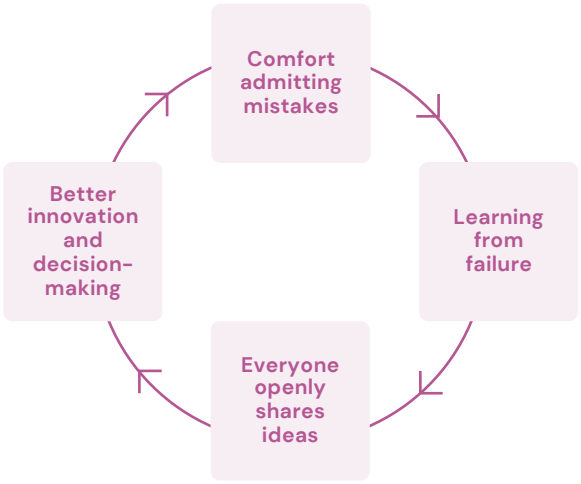
As a coach, it's important to be able to recognise the level of psychological safety within a team that you're working with.

How you answer the following questions when observing a group may help to indicate the level of psychological safety. There may not be a binary answer to each question, but considering where a team sits on a scale for each question will help you to assess the overall level of psychological safety.

	Low level of psychological safety	Good level of psychological safety
Is everyone speaking up?	No	Yes
Are all ideas given the same amount of time?	No	Yes
Are some people listened to a lot more than others?	Yes	No
Is there a challenge or debate within the team?	No	Yes
When someone says something does everyone agree?	Yes	Not always
Are people called out for being 'wrong'?	Yes	No

Psychological danger

Psychological safety



Source: World Economic Forum (2016)[68]

68 World Economic Forum (2016). Is your team in 'psychological danger'? www.weforum.org/agenda/2016/04/team-psychological-danger-work-performance/

How To Promote Psychological Safety in a Team

When working with a group or team there are some things you can do to support conditions for a good level of psychological safety.

Facilitate conversations

Bring people in who are not speaking, by asking people directly what they think, or asking them specific questions. This allows everyone to have a space.

Talk about psychological safety

Explain what the benefits are to the team and why it's important.

Address it explicitly: "We want to have a psychologically safe environment where people feel able to express their view and ideas."

Enable anonymous sharing of ideas

You can use suggestion boxes or online whiteboards for people to be able to share their ideas anonymously.

Create space for new (and wild) ideas

Creating an environment in which there is 'no such thing as a silly idea' can support people to feel more confident to speak up. And someone might say something unexpected – which can spark a thought with someone else and encourage sharing of ideas.

Embrace conflict

Disagreement or conflict should be embraced so that people are able to share their thoughts and explain them. It's OK if not everyone agrees. You can explain to the group that disagreement is normal, and that it's important to hear both perspectives as this often leads to better decision-making by the whole group.

The image shows the common traits of psychological safety and psychological danger, so that you can see the difference between these two environments.

Patient Involvement

Author
Hannah Pearson

By the end of this section, you will:

- Understand the different ways to involve patients, and why involvement matters
- Learn how to undertake co-production and manage patient experience
- Know how to understand and assess context in improvement work.

Looking back to the historical origins of quality improvement in the post-war automobile industry, the QI pioneers learnt that the 'voice of the customer' was essential to improving quality.

Patient involvement[69] is involving patients and carers in the planning, delivery and evaluation of services. By involving patients and carers in shaping services, we can better understand the needs of communities and provide better services.[70] Involving patients and carers in QI work is vital as they are able to identify improvement opportunities first hand as 'experts by experience' and can provide input as advocates for other patients contributing to QI work.

Patient Involvement and QI

Involving patients and carers increases our chance of success and engagement. A 2021 study by East London Foundation Trust[71] found that QI work that involved patients was four times more effective than those that did not.

If we fail to engage with the community we serve or with colleagues who will be impacted by changes, then the chances are that improvement ideas we come up with on our own won't fully meet the needs of these groups. It's therefore likely that improvement work will be less successful – and we may even waste time trying to develop an improvement idea that a patient, colleague, patient or carer could have told us early on won't work.

Co-production

The Social Care Institute for Excellence (2022)[72] defines co-production as 'working in partnership by sharing power between people who draw on care and support, carers, families and citizens.' Staff and service users come together to find shared solutions, working together in an equal partnership from the start to the end of any change that affects them.

It is an important concept for people delivering QI given services need to be designed and delivered to meet the needs of the populations it serves. In order to do this effectively, health and social care professionals need to develop the skills and confidence to work in ways that share power, actively seek out feedback and improvement ideas from the people that use services, and make an assertive effort to hear from those communities that are seldom heard.

69 NHS Leeds (2012). Patient Involvement: A guide to involving patients and carers in GP practices. www.leedsccg.nhs.uk/content/uploads/2018/03/PPDES-Toolkit-FINAL.pdf

70 Healthcare Quality Improvement Partnership (2017). Patient and public involvement in quality improvement. www.hqip.org.uk/wp-content/uploads/2019/05/Nov-2017-update-HQIP-PPI-in-QI-Guide.pdf

71 Kostal, G. and Shah, A. (2021). Putting improvement in everyone's hands: opening up healthcare improvement by simplifying, supporting and refocusing on core purpose. *British Journal of Healthcare Management*.

72 Social Care Institute for Excellence (2022). Co-production: what it is and how to do it. www.scie.org.uk/co-production/what-how

The ladder of participation

There are many ways in which patients and carers can be involved in improvement work. We can categorise these using the ladder of co-production[73], adapted from Arnstein's[74] original.

The New Economics Foundation's literature review of co-production in mental health (2013)[75] describes the steps towards co-production. It adapts the ladder of participation to reflect different levels of participation as you climb the ladder towards co-production: going from 'doing to' and 'doing for' to 'doing with'.

As a coach, your role is to advocate for better involvement of all stakeholders in improvement work, with a particular emphasis on patient and carer involvement. This means not only ensuring that patient involvement is taking place, but that it is meaningful and promotes co-production, where possible.

Different ways to involve patients

Ladder of participation

Doing with	**Co-production**	An equal partnership of staff and patients working together from design to delivery. Involving the patient in the identification of the problem, and in conversations about the best way to deliver services. Involving a patient in a project from before inception, until the end. A continuous partnership.
	Co-design	Patients are involved in designing services or solutions. They have an influence on the project but their involvement is within a specific remit. For example, presenting a problem and asking the patient to design the solution.
Doing for	**Engagement**	Patients are given the opportunity to share their ideas and opinions, and this may influence some decisions – but the patient does not have an equal role to those managing the project.
	Consultation	Patients are asked to fill in surveys or attend meetings. Their views are collected but may not necessarily influence any change. Can often be tokenistic.
	Informing	Staff explain how services work to patients, including articulating what changes or decisions have been made and why.
Doing to	**Educating**	Patients are supported to understand the service and how it is delivered so that they understand its purpose. This may be done via a leaflet, for example.
	Coercion	Patients are passive. Their views are not considered important and they are not listened to.

Source: National Co-production Advisory Group (2021)[76]

73 National Co-production Advisory Group (2021). Ladder of co-production. www.thinklocalactpersonal.org.uk/Latest/Co-production-The-ladder-of-co-production

74 Arnstein, R. (1969). A Ladder of Citizen Participation. *Journal of the American Planning Association.*

75 New Economics Foundation (2013). *Co-production in mental health: A literature review.* https://neweconomics.org/uploads/files/ca0975b7cd88125c3e_ywm6bp3l1.pdf

76 National Co-production Advisory Group (2021). Ladder of co-production. www.thinklocalactpersonal.org.uk/Latest/Co-production-The-ladder-of-co-production

How To Undertake Co-production

As a coach, your role will be to advocate for better involvement of all stakeholders in the project, with a particular emphasis on patient, carer and staff involvement, for the reasons outlined above. Teams may be unsure of how to do this; so be prepared to support them with how to think about co-production.

Use the ladder of participation to help them map their QI approach. You can then coach the team to think with ambition about the steps they might take to move up the ladder.

It's common to find that clinicians are anxious about involving people with lived experience in their QI work. They often worry it will 'slow things down', or take time or resources that they feel they do not have. Sometimes they also worry that it will 'open the floodgates' and fear that what the public want might not be possible within current resources available. Whilst these are legitimate concerns, and can be used as helpful balancing measures, it is important as a coach to challenge preconceptions, and to be able to cite examples where co-production has led to a more effective end product.

A co-production model (NHS England[77]) outlines seven steps to make co-production happen in reality:[78]

1. Get agreement from senior leaders to champion co-production.
2. Use open and fair approaches to recruit a range of people who use health and care services, carers and communities, taking positive steps to include under-represented groups.
3. Put systems in place that reward and recognise the contributions people make.
4. Identify areas of work where co-production can have a genuine impact, and involve patients and carers in the very earliest stages of project design.
5. Build co-production into your work programmes until it becomes 'how you work'.
6. Train and develop staff, patients and carers so that everyone understands what co-production is and how to make it happen.
7. Regularly review and report back on progress. Aim to move from 'you said, we did', to 'we said, we did'.

77 NHS England. A Co-production Model. https://qi.elft.nhs.uk/wp-content/uploads/2018/05/C4CC-Co-production-Model.pdf
78 NHS England (2023). Co-production and quality improvement – a resource guide. www.england.nhs.uk/long-read/co-production-and-quality-improvement-a-resource-guide

Measuring Patient Experience

Traditionally in health and social care we have tried to capture 'patient experience' feedback through surveys or exit interviews at service level and through national benchmarking. Some QI teams use this data for improvement, but often it lacks the granularity and frequency that is needed for statistically significant qualitative and quantitative measurement and evaluation.

A core part of the coach's role is to help the team to take a meaningful and creative approach to qualitative and quantitative measurement. If a team is inexperienced with capturing patient or staff feedback, it can be helpful to create a measurement plan, and break the work down into smaller tasks with appropriate sample sizes.

Often the first idea a team will have about how to measure patient and staff experience is to undertake a set of pre and post experience surveys. As a coach you can help them to think about how to design easily accessible surveys to capture patient and staff feedback. Think about how and when to target the surveys as part of your core measurement plan.

Teams often need some support when it comes to thinking of other ways to capture feedback. Helpful qualitative methods to measure improvement and capture experience for learning include:

Approach	Main advantages	Main limitations
Interviews *Ask people what they think of a current service. Can be structured.*	• In-depth information • Can probe reasons • Can handle sensitive topics.	• Resource intensive • May have difficulty interviewing same people over time • Generalisability issues with small samples.
Focus groups *Ask a group of people what they think of a current service.*	• In-depth information • Can reconvene same group over time • Group dynamics can spark ideas.	• Resource intensive • May experience high rates of drop out over time • Generalisability issues and selection bias.
Patient stories *Capture and share a patient story focusing on strengths/ weaknesses of services.*	• In-depth information • Puts 'human face' on issues and helps to tell a story • Focuses on what is most important to patients and carers.	• Difficult to track changes in the same group of people over time • Generalisability issues • Can be difficult to draw out key themes.
Surveys *Ask people to answer questions independently using a form (online or physical).*	• Can gain a large amount of feedback • Can use multiple administration methods (post, kiosks, online, SMS, comment cards, phone, in-person) • Wide range of validated surveys available.	• May collect a superficial picture, rather than understanding why people feel a certain way • Subject to self-selection and literacy bias • Closed-ended questions may be more likely to gain positive feedback • People can get fatigued with answering surveys.

Approach	Main advantages	Main limitations
Patient shadowing *Ask a patient if you can shadow them on their journey.*	• In-depth information • Puts 'human face' on issues • Focuses on what is most important to patients and carers.	• Resource intensive • Can be difficult to coordinate • Only gives one view.
Crowdsourcing *Use social media to inform your project and source ideas.*	• Can gain a large amount of feedback • Quick and easy to carry out.	• May collect a superficial picture, rather than understanding why people feel a certain way • Subject to self-selection and literacy bias • May not reach a diverse group.
Observing *Walk around physical areas and witness what happens to identify improvement opportunities.*	• In-depth information • Can see issues and their impact in real-time • Helpful to get an outsider perspective.	• Resource intensive • May not be reflective of the 'normal situation', people may change behaviours if they are aware they're being observed.

Source: Adapted from daSilva and The Health Foundation (2013)[79]

79 daSilva, D., and The Health Foundation (2013). Measuring Patient Experience. www.health.org.uk/publications/measuring-patient-experience

Context and Culture

Authors
Sidney Beech and **Samantha Machen**

Context for Successful Quality Improvement

The evidence has shown that many QI initiatives fail to bring about any improvement, or only manage to realise modest improvements. This is often despite a driven team leading the change and good ideas for improvement. Even a highly successful idea implemented in one organisation may fail to realise any tangible benefits in another, even when the change itself is identical. What may cause this?

Change and improvement do not happen in a vacuum. Many factors influence change beyond the intervention itself, such as the local/organisational culture, leadership, resources, behaviours, capability, and motivation. Collectively these factors, amongst many others, are known as the 'context'.

Kaplan et al (2010)[80] define context as '… anything not directly part of the technical QI process. Context may include factors relating to the characteristics of the organisational setting, the individual, their role in the organisation, and the environment". In short, context is anything that is not the QI intervention itself.'

The concept of 'context' is very broad and can seem overwhelming. You may be wondering: how can we understand and measure something that is defined to be everything? A useful model based on the work of Batalden and Splaine[81] helps to understand context as a multi-layer phenomenon.

80 Kaplan H. C., Brady P. W., Dritz M. C., Hooper D. K., Linam W. M., Froehle C. M., Margolis P. (2010). The influence of context on quality improvement success in health care: a systematic review of the literature. *Milbank Q.*

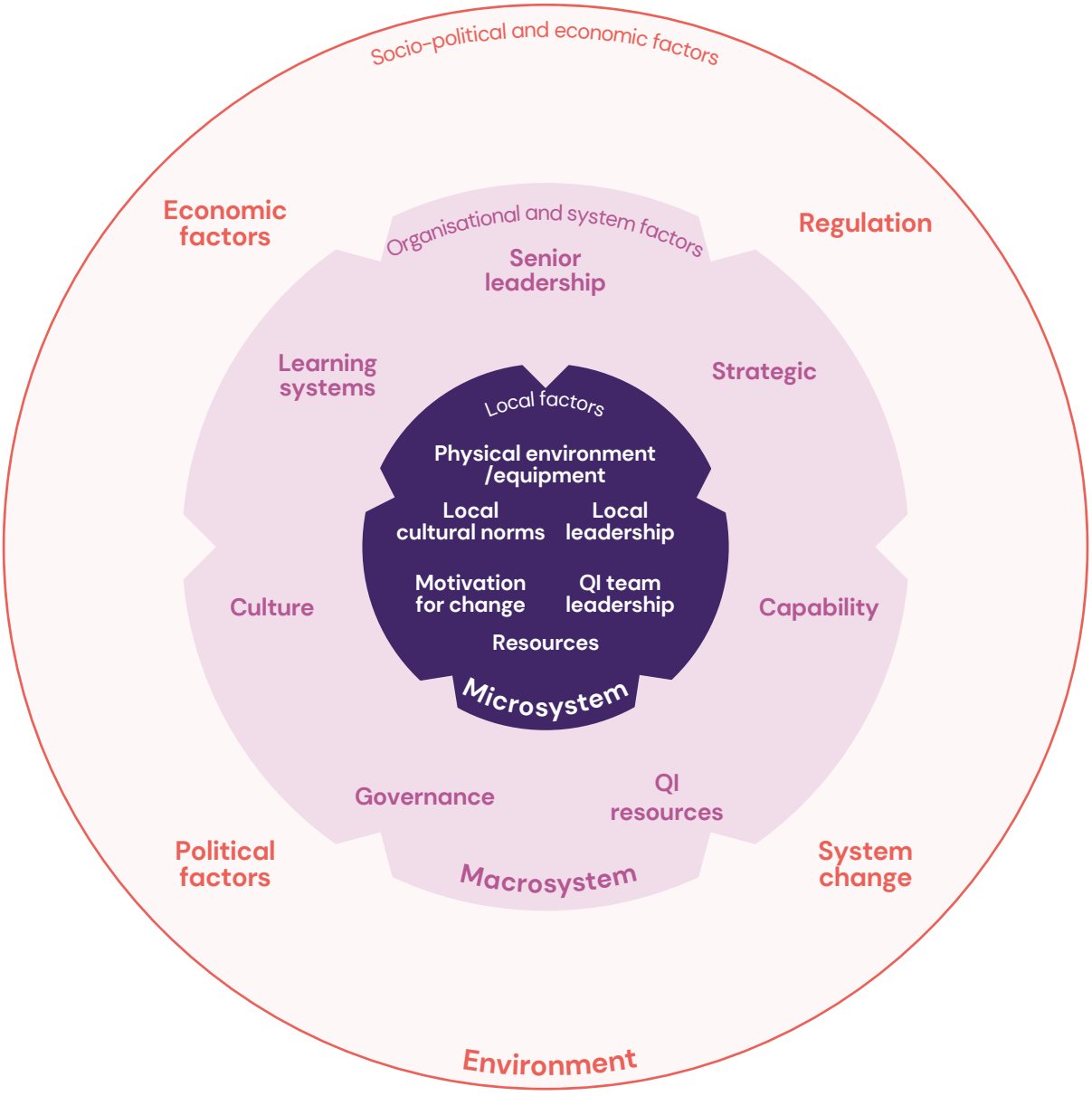
81 Batalden P. and Splaine M. (2002) What Will It Take to Lead the Continual Improvement and Innovation of Health Care in the Twenty-first Century? *Quality Management in Health Care.*

Context as a multi-layer phenomenon

The setting for improvement work – including the teams (such as wards, community teams, surgical team), organisations and systems that the work is taking place within – can be complex. Quantifying and qualifying the impact the setting has on a change idea may feel unsurmountable. However, by looking at the context though a different lens, and by breaking it down into three layers, it can feel much more accessible.

These three layers are:

- **Microsystems:** Small groups of people who regularly work together to provide care. For example: individual wards, community teams, the pharmacy team etc.
- **Macrosystems:** Groups of microsystems, for example a hospital or an integrated delivery system
- **Environment:** The community and society in which these smaller systems operate, e.g. socioeconomic or political forces.



Via a systematic review format, Kaplan and colleagues charted the impact of context, using the framework on the previous page. Here are some examples of the different levels and their impact on QI efforts, which may be positive or negative:

Environment (socio-political and economic factors)

- Regulation (e.g. a recent Care Quality Commission report that has caused anxiety)
- System change (e.g. change in commissioning that makes improvements harder)
- Political factors (e.g. an executive blocking improvement work due to personal and political issues at board level)
- Economic factors (e.g. funding).

Macrosystem (organisational and system factors)

- Senior leadership (e.g. command-and-control approach to change inhibits QI)
- Strategic (e.g. QI is seen as a valid approach to improvement and has clear scope in the organisation)
- Capability (e.g. the organisation's familiarity with QI)
- QI resources (e.g. access to support in QI and measurement)
- Governance (e.g. excellent accountability for QI work)
- Learning systems (e.g. work from the past and present informs new initiatives)
- Culture (e.g. improvement work is not seen as everybody's job and is left to the doctors).

Microsystem (local factors)

- Local leadership (e.g. managers have done some QI training and been involved in QI before so understand the commitment and provide positive support)
- QI team leadership (e.g. the person running the QI work is skilled in QI methods)
- Resources (e.g. having the protected time to do this QI work)
- Motivation for change (e.g. incentives to improve – extrinsic motivation)
- Local cultural norms (e.g. nurses never do improvement work)
- Physical environment or equipment (e.g. the layout of the unit makes teamwork harder).

The following page provides an example of these three different levels in an organisation and how they may impact a fictional QI project aiming to reduce falls.

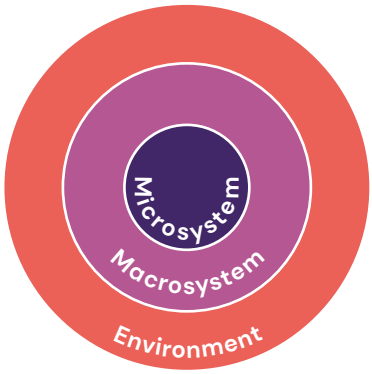
When would you use this in QI work?

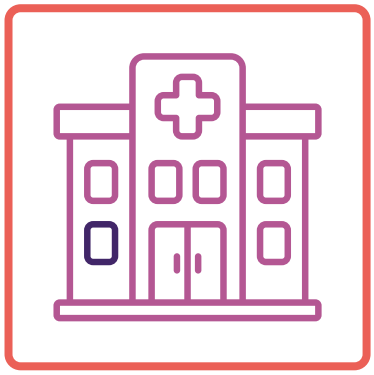
Whether a change is successful and sustainable, or not, depends on the context that surrounds the change itself. As a coach, you will need to work with teams to help them consider context to foresee any issues during their improvement journey. Working with a team to identify and consider the microsystem, macrosystem and environment and how this will affect their work can a be helpful step in an improvement journey. It's important that a team understands how these different elements affect their work, and that the outcome of their improvement efforts is not solely based on the work that they put in, but is also dependent on these wider contextual factors. Considering context can also help us to anticipate potential barriers or issues which could affect our improvement work, so that we can better plan and mitigate against these issues – resulting in better outcomes.

An example of the three different levels in an organisation and how they may impact a fictional QI project aiming to reduce falls.

Project

Reduce the average number of unobserved falls on Red Ward by 25 % within the next nine months





Microsystem
Ward

Macrosystem
Hospital

Environment
Wider forces

Microsystem

- There is change fatigue amongst most of the team
- It isn't clear who 'owns' the problem of falls on the unit – historically it has been the nursing team but they do not currently want to work on this
- Prior QI work on falls failed to bring about improvements so there is some scepticism about this project
- There is a high rate of agency and locum workers, particularly in the evenings, making sustainability harder
- A lot of the staff have experience in QI
- The ward environment is old and there is a need to update the facilities and equipment available to us.

Macrosystem

- The Director of Operations and Medical Director for the division have given the team protected time (two hours a week for three months) to run a QI project
- One of the team sits on the Trust Falls Improvement committee and so this work can complement existing approaches
- QI work is common in the Division although not in the Trust. There is a QI Coach assigned to support the Division for two hours a week
- IT are not very amenable to change, making any IT system changes more challenging
- 87 active QI projects in the division means there may be conflicting work on IT systems.

Environment

- The executive responsible for Falls Improvement work in the Trust (Chief Nurse) requires all QI work on falls to come directly for her approval. As this has no nursing engagement at all (led by a physio, junior doctor and consultant), there is a potential barrier from day one.
- The Integrated Care Board have a budget for falls improvement work in the region. It may be possible to bid for this in support of new IT
- The Trust is under a spotlight from the regulators, given it has one of the highest rates of falls in the UK – therefore this is a Trust priority
- The incoming Chief AHP was previously the falls lead in the neighbouring Trust and informally has pledged his support for this work, and has said he will work with the Chief Nurse to get her on board.

Measuring Sustainability

There are other established methods of assessing context in improvement work, beyond the Batalden and Splaine framework covered in the previous section.

- The Sustainability Model[82] is often employed by teams leading large improvement initiatives, projects and programmes. It is a tried-and-tested model for understanding the strengths and weaknesses of planned and ongoing improvement work. This model evaluates improvement efforts using ten domains that cover the organisation that the work is taking place in, the staff involved in the change, and the process that is the focus of the improvement.
- The Model for Understanding Success in Quality (MUSIQ) tool[83] explores the roles of, and inter-relationships between, contextual factors within QI initiatives. It explores aspects such as the individuals leading the improvement work, the microsystem, QI support and capacity, the organisation and the environment.[84]

Unlike the Batalden and Splaine model (shown against the hospital icon on the previous page), the Sustainability Model and MUSIQ tool both introduce a means of quantifying a given context. This often has a strong inference on the likelihood of long-term sustainability of improvement work.[85] Whilst this can bring benefits in highlighting weaknesses to a greater extent, the tools can at times feel rigid and overly comprehensive. As a coach you will need to determine whether you find these models useful yourself, and then whether the teams you work with can benefit from them.

Even without using them, the tools can be a source of inspiration for what factors teams should consider when embarking on improvement work.

82 NHS England and NHS Improvement (2021). *Sustainability Model.* www.england.nhs.uk/wp-content/uploads/2021/03/qsir-sustainability-model.pdf

83 Kaplan H. C., Provost L. P., Froehle C. M., et al (2012). The Model for Understanding Success in Quality (MUSIQ): building a theory of context in healthcare quality improvement. *BMJ Quality & Safety.*

84 Reed, J. E., Kaplan, H. C. and Ismail, S. A. (2018). A new typology for understanding context: qualitative exploration of the model for understanding success in quality (MUSIQ). *BMC Health Services Research.*

85 Doyle, C., Howe, C., Woodcock, T. et al. Making change last: applying the NHS institute for innovation and improvement Sustainability Model to healthcare improvement. *Implementation Science.*

05

Coaching Measurement

This chapter focuses on:

A Coach's Role in Measurement

Author
Sidney Beech

By the end of this section, you will:

- Understand the importance of the coach as a connector
- Know how to connect people to support the measurement of improvement work.

It is important to know that you do not need to be an expert in measurement as a Quality Coach. Nor do you need to know complex analytical methods or statistics. However, it is important to understand the key principles of measurement and who in your 'coach network' can help you to support teams in the measurement of improvement work.

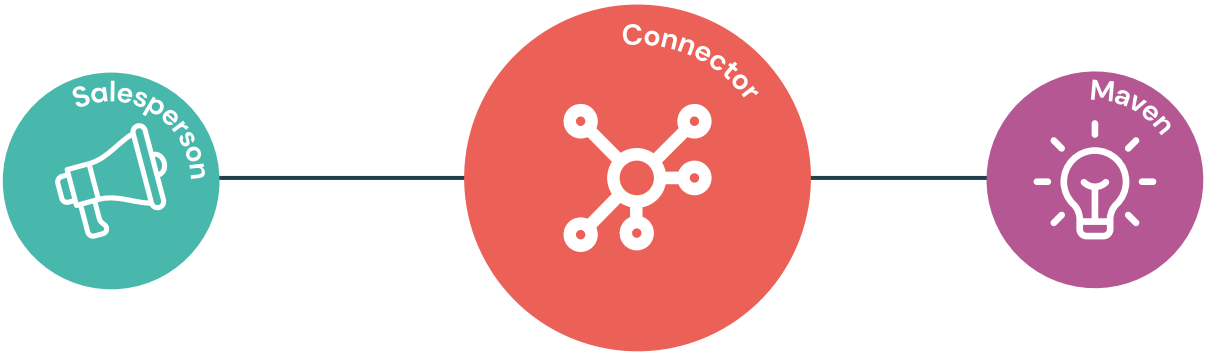
Measurement and evaluation of improvement work is often the most challenging task for an improvement team. People new to quality improvement may feel they lack the training and/or experience needed to independently and successfully evaluate the changes they make. As a coach, you will quickly learn that most teams require some level of technical improvement support and advice on measurement. In your role you will need to recognise your strengths and weaknesses with data. No one expects you to have all the answers. However, good self-awareness is important; as is ensuring you provide the correct information and give valuable advice. The important task for you today is to begin creating a network of support to assist you with topics you are unfamiliar with. Examples include statistical analysis, data presentation and advanced control charts.

Coaches As Connectors

One of your primary roles as a Quality Coach in supporting measurement is connecting teams to people who can help them.

In the book *The Tipping Point* (2002),[86] author Malcolm Gladwell details how products, ideas, behaviours, entertainment, and all manner of things explode into the public consciousness.

Gladwell identified three unique types of individuals whose involvement create social epidemics: *connectors* (individuals with huge networks who bring diverse people together); *mavens* (information specialists who spread knowledge); and *salespeople* (charismatic persuaders who engage the masses). These roles are outlined below:



Influences people to take action

Brings people together to make change happen

Shares their deep knowledge on a topic

Salespeople make change happen through persuasion. Their role is to go out and sell an idea and to convince others that it is a) a good idea and b) worth supporting and participating in. Salespeople need to be good communicators and understand what motivates individuals, in order to motivate and engage others.

Connectors make change happen through people. They use their networks to bring people together to tackle a problem. The connector signposts and shares resources and connects people to mavens. Where people might ask the maven about how to do something, they ask the connector where to find the maven and which maven would best answer their question.

Mavens are subject matter experts who love sharing their knowledge and helping others to use that knowledge in a meaningful way. They might do this through offering advice, mentoring people or running workshops. Importantly, mavens have the ability to communicate their knowledge clearly to a range of audiences (beginners through to experts).

This model can be very helpful in QI, especially in your new role as a Quality Coach. You may find teams' successes or failures are owed to the presence or lack of these key players. Did the work not get off the ground because no one thought about how to engage with people and sell your ideas, and who might do that? Do the team need help from a specialist (perhaps a data expert?) – can you connect them to that specialist as a coach? Do you need someone to bring in their lived experience and extensive knowledge base to strengthen the theory of change and help the team to think differently and outside the box?

86 Gladwell, M. (2002). *The Tipping Point*. Back Bay Books.

Coaches are by nature connectors. You should consider who you have in your list of contacts for support on a variety of matters, particularly those outside of your area of expertise.

For example, who can help you with…?

- Accessing a dataset, for example from a Trust IT or reporting system
- Analysing a large dataset
- Using a QI management system, for example Life QI
- Creating an SPC chart using the NHS England SPC tool[87]
- Re-basing a chart on Life QI in line with PDSA cycles
- Using online collaboration tools such as Jamboard, Miro and Mural
- Facilitating a large team workshop of the diagnosis of a problem
- Running a reflective session with a QI team
- Teaching a specialist QI topic
- Making a change to an IT system
- Booking a room to meet.

The list goes on – it's something for you to consider and curate.

87 NHS England. Statistical Process Control tool. www.england.nhs.uk/statistical-process-control-tool/

Measuring For Improvement

Authors
Sidney Beech, **Jennifer Cotter**, **Helen Crisp**, **Hannah Pearson** and **Jem Ramazanoglu**

By the end of this section, you will:

- Understand the importance of measurement and how to champion it
- Recognise when, how and how much to measure for greatest value
- Learn how qualitative data can support improvement work.

Another important role you will play as a Quality Coach is in helping teams to work through the different stages of measuring for improvement. This section will help you address the common questions you may be asked by teams you are supporting as a Quality Coach:

- Why do we need to measure?
- What is 'measuring for improvement'?
- How do we measure for improvement?
- How do we share and present our data?

We also provide some pointers for the challenges around coaching measurement, and useful coaching questions.

Why Do We Need To Measure?

Measurement is one of the underpinning principles of quality improvement. We can only answer the second question of the Model for Improvement, 'How will we know that a change is an improvement?', by using some form of measurement.[88,89]

As a coach, you will find that at times you will need to champion the importance of measurement. Teams may be daunted by the time it takes to measure and/or the difficulty and burden of measurement. Coaching teams who are new to measurement in improvement work can be challenging. In healthcare we work with people with a very diverse range of expertise, skillsets, and experiences – this is what makes healthcare so incredible. Within this diversity comes a range of attitudes, skillsets and beliefs about data and measurement. Some of the people that you coach will be very nervous and hesitant when discussing measurement. Indeed, they may wish to avoid measurement altogether in their improvement work! Conversely, you will also coach people who love data, and who will want to collect as much data as possible.

In reality this is a spectrum, with many people happily sitting in the centre, willing to use measures with an improvement mindset. However, considering the two extremes can be helpful in addressing challenges with measurement that any teams that you coach face.

88 NHS Institute for Innovation and Improvement (2017). Measurement for improvement Process and systems thinking. www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2017/11/ILG-2.1-Measuring-for-Improvement.pdf

89 Langley, G., Moen, R., Nolan, K. M., Nolan, T. W., Norman, C. L. and Provost, L. P. (2009). The Improvement Guide: A Practical Approach to Enhancing Organizational Performance. Jossey-Bass Publishers.

— Wanting less or no data Wanting more data +

People who do not like data (data averse)

Some people do not place much faith in numbers. This could be for many reasons, such as:

- Previous experience of data being used to make bad decisions
- Lack of experience and/or confidence with data
- Fear of working with numbers in public (arithmophobia)
- Preference to rely on their instincts, valuing experience over data
- Expectation that measurement for improvement requires skills in statistics
- Pressure outside the improvement team to 'just do it'.

Your role as a coach with people who have an aversion to data is to debunk any myths around data and to remind them that they do not need to know much about measurement in order to do QI work well. Use your existing network to support them, perhaps by signposting to people who are the experts, as required.

People who love data (data mavericks)

Sometimes people can get bogged down in collecting, analysing, and presenting large datasets, delaying the actual improvements that are needed. Commons reasons for this include:

- The individual has significant experience of measurement for research and/or judgement, where all data is required. The shift in mindset can be hard
- Risk aversion is part of the organisational culture, meaning there is often a 'need' for more data
- The team are overly critical of 'imperfect' datasets and do not want to move forward without the 'perfect' data
- Sourcing data for the selected measurement is harder than anticipated and so significant energies are invested in sourcing this data.

As with the data averse, your role as a coach will be to advocate for measurement with an improvement mindset. This may require you to challenge people who fall into the trap of 'over-measuring'. It can be helpful to remind a team or individual that measurement is not the goal on QI work; improvement is.

General advice

You will need to be clear with teams you are coaching on the significant benefits measurement brings and its purpose in improvement, and to demystify the complexity of measurement. A common myth around measurement is that it slows down improvement work. In fact, when done well we know that measurement helps to speed up improvement work, by enabling teams to make informed decisions, such as only moving forward with change ideas that have an impact.

Remember to keep it simple and reinforce that measurement doesn't have to be a complex task that they complete independently.

Measurement is a useful communication strategy for teams. By using data, you can engage people, update them, seek input and feedback, and showcase successes. Later in this chapter we outline how teams can showcase work through visual boards.

What Is 'Measuring For Improvement'?

There are different reasons to measure something. In healthcare, we often use three categories to understand the purpose, methods and strategies used in measurement:

1 **Judgement** (also sometimes called assurance)
Where specific measures are used to understand the level of performance, for example Key Performance Indicators (KPIs), with targets that are monitored regularly (e.g. monthly) to assess if a service is achieving what is expected. These types of measures may be used to compare services or organisations.

2 **Research**
Where measures are used on a large scale with a fixed hypothesis or question in order to generate new knowledge. Large amounts of data are collected, analysed and interpreted to assure that the conclusions are well evidenced, as the knowledge gained will be generalised.

3 **Improvement**
Where a group of specific measures linked to the aims and tests are monitored, using enough data to show how changes are having an impact on a small scale – e.g. with one team. As you carry out the tests you are continuously learning, so the hypothesis or predictions may change.[90,91]

Each is distinct from the others in a variety of ways. The table below summarises these distinctions.

Characteristic	Judgement	Research	Improvement
Aim	Achievement of target or standard; assurance	New knowledge	Improvement of service
Testing strategy	No tests	One large, blind test	Sequential, observable tests
Sample size	Obtain 100 % of available, relevant data	'Just in case' data	'Just enough' data; small, sequential samples
Hypothesis	No hypothesis	Fixed hypothesis	Hypothesis flexible; changes as learning takes place
Variation	Adjust measures to reduce variation	Design to eliminate unwanted variation	Accept consistent variation
Determining if change is an improvement	No change focus	Statistical tests (t-test, F-test, chi square, p-values)	Run charts or statistical process control (SPC) charts

Adapted from: Solberg LI, Mosser G & McDonald S (1997)[92]

90 West of England Academic Health Science Network. Measurement for Improvement. www.weahsn.net/toolkits-and-resources/quality-improvement-tools-2/measurement-for-improvement/

91 NHS Elect. Guide to Measurement for Improvement. www.nhselect.nhs.uk/uploads/files/1/Resource/Service%20Transformation%202016/NHS%20Elect-Measurement%20for%20Improvement-Feb17.pdf

92 Solberg L. I., Mosser G. and McDonald S. (1997). The Three Faces of Performance Measurement: Improvement, Accountability and Research. *Journal on Quality Improvement*.

Let's consider the challenge of sepsis in healthcare. We may look at sepsis through the lens of judgement (are we meeting a key target?), research (what new knowledge can help us address this longstanding challenge?) and improvement (how can we improve using the existing evidence base?). The table provides an example summary.

Characteristic	Judgement	Research	Improvement
Aim	Assess whether all ?sepsis* patients are treated with IV antibiotics in one hour of attendance to A&E in our Trust.	Evaluate through a randomised control trial whether the addition of measurement of procalcitonin (PCT) for sepsis patients can result in a reduction in antibiotics.	Within four months, increase the % of ?sepsis* patients treated with IV antibiotics in one hour by 10 % in our A&E dept.
Testing strategy	-	Patients with suspected sepsis will be identified at Emergency Department triage. After initial NEWS2 scoring and assessment according to current standard of care the eligibility criteria will be assessed and if no exclusion criteria apply, patients will be enrolled into the trial and randomised.	PDSA: Train all staff on sepsis six. PDSA: Forcing function on e-prescribing system.
Sample size	All patients coded ?sepsis*.	Stringent sampling based on clinical presentation in four acute hospitals.	Just enough data e.g. a small proportion of pts coded ?sepsis* (randomly selected) a week
Hypothesis	-	The addition of PCT measurement to NEWS2 scoring leads to a reduction in IV antibiotics initiation at three hours, with no increase in 28-day mortality compared with NEWS2 scoring alone.	Based on PDSAs – e.g. will we be able to embed training given the number of staff, rotations and agency/bank numbers?
Variation		Stringent process for inclusion and exclusion from the research project.	Use charts to understand variation, which may inspire future PDSAs.
Determining if change is an improvement	RAG rating. >95 % green, 90-95 % amber, <90 % red	Using an absolute 2.5 % non-inferiority margin to evaluate.	SPC chart of % of ?sepsis* patients treated with IV antibiotics in one hour

Source: The research information used for this example is taken from Euden at al (2022).[93]
* '?sepsis', or 'query sepsis', means a clinician thinks the patient is presenting with signs of sepsis, which is a life-threatening reaction to an infection.

93 Euden J., Thomas-Jones E., Aston S. et al. (2022). PRONTO team. PROcalcitonin and NEWS2 evaluation for Timely identification of sepsis and Optimal use of antibiotics in the emergency department (PRONTO): protocol for a multicentre, open-label, randomised controlled trial. *BMJ Open*.

Shifting to Measurement For Improvement

The teams that you will coach should use measurement for improvement as a core part of their improvement work. You may find that some of the people you work with will find it hard to move away from the convention of measurement they are used to. For instance, if they have worked in a corporate, safety, governance, management, or operations role then they may be used to KPIs, targets, RAG rating, exception reports and actions plans. This world of measurement is wholly separate from improvement and will need a mental shift. Similarly for research, someone who is entrenched in the rigorous principles of research may struggle with what they perceive as the looser approach to measurement in improvement. Below we outline some pointers for helping people make a shift to measurement for improvement.

Measurement for research

Flags	Shift to measurement for improvement
Overly stringent approach to inclusion/exclusion criteria for measures.	Inclusion and exclusion criteria are rarely used in QI. Instead we use operational definitions to outline our approach to collecting and analysing data. Encourage teams to focus on these instead of robust exclusion criteria.
Always seeking ethics approval, even when this isn't appropriate.	Ethics approval is not commonly used in QI.[94] Teams can seek assurance from a Research and Development (R&D) specialist if needed, but can instead focus energies of approval and consent into patient involvement in their QI work..
Capturing too many different measures.	Ask teams "how will this measure help you learn and/or inform improvement?" If they can't explain the justification clearly, then tell them not to use that measure.
Wanting to measure using a control group, or similar.	Control groups are not used in QI work so advise them that this isn't needed.
Wanting to collect data for an extended period of time.	Use the 'just enough' data case study (see below) to explain why extensive data isn't useful or needed in QI. The focus is improvement, not measurement.

94 Hunt, D.F., Dunn, M., Harrison, G., et al. (2021). Ethical considerations in quality improvement: key questions and a practical guide. *BMJ Open Quality*.
Lynn, J., Baily, M.A., Bottrell, M. et al. (2007). The ethics of using quality improvement methods in health care. *Annals of Internal Medicine*.
Healthcare Quality Improvement Project (2017). Guide to managing ethical issues in quality improvement or clinical audit projects. www.hqip.org.uk/wp-content/uploads/2017/02/guide-to-managing-ethical-issues-in-quality-improvement-or-clinical-audit-projects.pdf

Measurement for judgement

Flags	Shift to measurement for improvement
Less frequent measurement (e.g. quarterly or monthly) which makes it harder to understand improvements.	A simple reminder that data is crucial to informing improvement efforts. Infrequent data collection hinders and slows down QI work, whilst also leading to data-poor and misguided decision making. You should encourage teams to use data over time, as much as feasible.
Use of red, amber and green to determine 'how well' a measure is performing	RAG rating should not be used in QI. Encourage teams to focus on the 'how' and less on the 'how well'. It's easy to forget that the focus of QI is improvement and not measurement and assurance.
Data is used to assign 'blame' for underperformance.	Blame does not lead to sustainable improvements. Encourage teams to own the problem in collaboration with their stakeholders and not just to delegate problems without support. Insights into where the largest issues are is powerful; however, a careful and fair approach is needed.
All possible data is collected and included and/or an aversion to sampling or smaller datasets.	Use the 'just enough' data case study (see page 174) to explain why extensive data isn't useful or needed in QI. The focus is improvement, not measurement.

How Do We Measure for Improvement?

As previously discussed, you will wear many hats as a Quality Coach; for example, as an educator and a salesperson. After teams have agreed their SMART aim, they should aim to plot data over time, in order to guide improvement efforts and evaluate the impact of change ideas tested through PDSA.

In the planning stages of improvement work, you may want to use the GROW model to initiate discussions with your team about measurement. You may find varying levels of confidence and competence with measurement, and it is an area some teams may be hesitant to engage with, for various reasons. Therefore you may find that you have to wear the educator hat while coaching the team, to guide them through the principles of measurement; and then the salesperson hat to sell why measurement is important, and how measurement should be integrated into a team's improvement work from the start, and continued or plotted over time.

Once you have educated the team and persuaded them of the importance of measurement, you may need to facilitate a conversation about what to measure. A way of doing this is by using the Family of Measures. The Family of Measures is a balanced set of measures that is reported daily, weekly or monthly to determine if a process has improved, plateaued or worsened. Measures should relate back to the SMART aim and any primary or secondary drivers.

Outcome measure	This measure is directly associated to the SMART aim. Questions you could ask as a coach: • Is this work resulting in the right outcomes? • Are you making things better? • Are you progressing towards achieving your aim?
Process measure	This measure is indirectly associated with the SMART aim. It can be a direct measure of a process put in through a change idea that affects the achievement of the SMART aim. Questions you could ask as a coach: • What effect has the change idea had on the system or process? • Is the process improving? • Is the process reliable?
Balancing measure	This measure demonstrates any unintended or seemingly unrelated consequences of the change idea. Questions you could ask as a coach: • What about the bigger picture? • Is the change idea(s) having an unexpected impact elsewhere?

Effective use of measures enables a team to take informed decisions about improvement efforts; either adapting, adopting or abandoning a change idea, by studying the local and wider, intentional and unintentional impacts of their work.

As a coach it may be worthwhile to have an example of a Family of Measures available when explaining them to your team. It is key that you are able to explain the usage and differences of the Family of Measures, so that the team can understand the value of them. You will need to encourage the team to have at least one outcome and process measure from the planning phase of their work, and to start looking at what balancing measures they could use. Sometimes balancing measures may be obvious from the start; if they are not, you will need to revisit this conversation throughout your meetings to see if any balancing measures have become apparent. This ensures that the team is looking at the wider context of the changes being tested, and hence will be able to study the true impact effectively.

As a coach, make sure you revisit conversations about all of the measures during your meetings with the team. Using the different types of measures, you can facilitate conversations throughout the PDSA and project cycles on the impacts changes are having. There are some examples of questions you could ask in the table on the previous page.

Sometimes teams can find it daunting if they have to measure more than one or two things. To alleviate some of this anxiety, you may have to encourage the team to investigate what data they already have available to them that could be used. This could be through the organisation's analytics department, service dashboards, or ongoing audits, for example. If the data is not readily available, you may have to help the team establish what is the most appropriate data to collect (see Just Enough Data, page 174), and how they would go about collecting it.

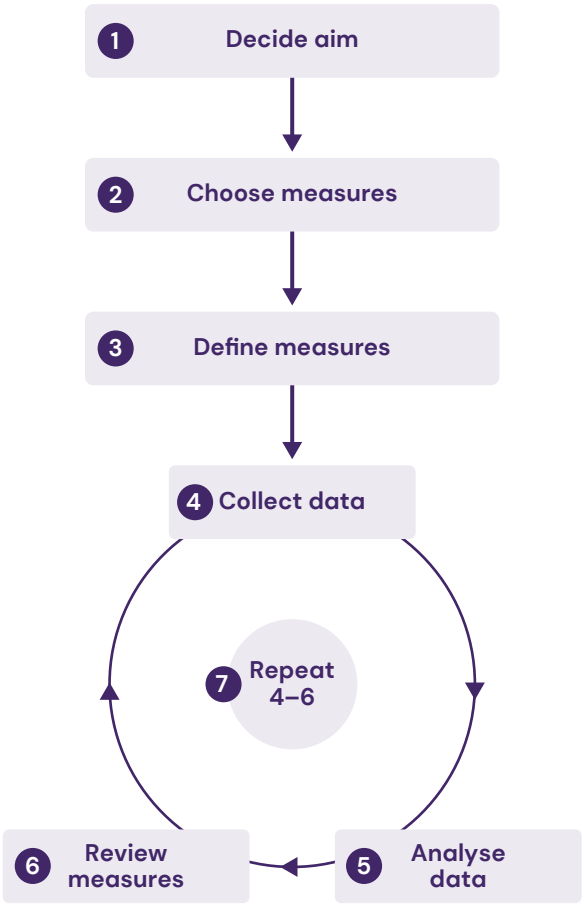
In summary, by using the Family of Measures you can help a team be selective and specific on what to measure. This means they only collect the most relevant data to demonstrate effects which contribute to their SMART aim, primary and secondary drivers.

Useful resource:

Family of Measures from the Institute of Healthcare Improvement (YouTube)
https://youtu.be/uow7mzrFif4

Seven Steps to Measurement

Measurement should be a continuous process, not a one-time event. Where possible, you should encourage teams to make measurement part of their daily routine, and try to use existing data or data collection methods that are well established. The aim is to reduce the burden of measurement and make it as simple as possible for everyone.



Good measurement doesn't happen by chance – you need a good process to ensure teams get the data they need. The 7 steps to measurement model[95] provides a structure and method to develop effective measures for improvement in practice. It was designed to complement the Model for Improvement and PDSA cycle.

1. **Decide the aim and objectives**
   Teams should have a SMART aim that is well understood and communicated.
2. **Choose the right measures**
   Use the Family of Measures to identify what matters most in measurement. Teams should consider qualitative data alongside quantitative data. A few good measures are better than many 'just in case' measures.
3. **Define measures**
   Here you should encourage teams to agree a standard approach to measurement. Use operational definitions where needed.
4. **Collect the data**
   Make the most of existing data where possible. Ask: What data? Who is collecting it? When? Where will it be recorded? How will the data be obtained and collected?
5. **Analyse and present the data over time**
   In order to be able to demonstrate improvements, teams should plot data over time using tools such as run charts. See Presenting Data on page 180 for more insights on this.
6. **Review the data to understand what it is telling the team**
   What story is the data telling? What are you learning? Ask questions to explore what has happened through the QI work. Share progress with others outside of the immediate team.
7. **Keep going**
   Repeat steps 4–6 and continue to learn about the QI work.

Useful resource:

Mike Davidge on Measurement for Improvement (YouTube)
https://youtu.be/Za1o77jAnbw

95 NHS England and NHS Improvement. Seven steps to measurement for improvement. www.england.nhs.uk/wp-content/uploads/2021/12/qsir-seven-steps-to-measurement-for-improvement.pdf

Just Enough Data

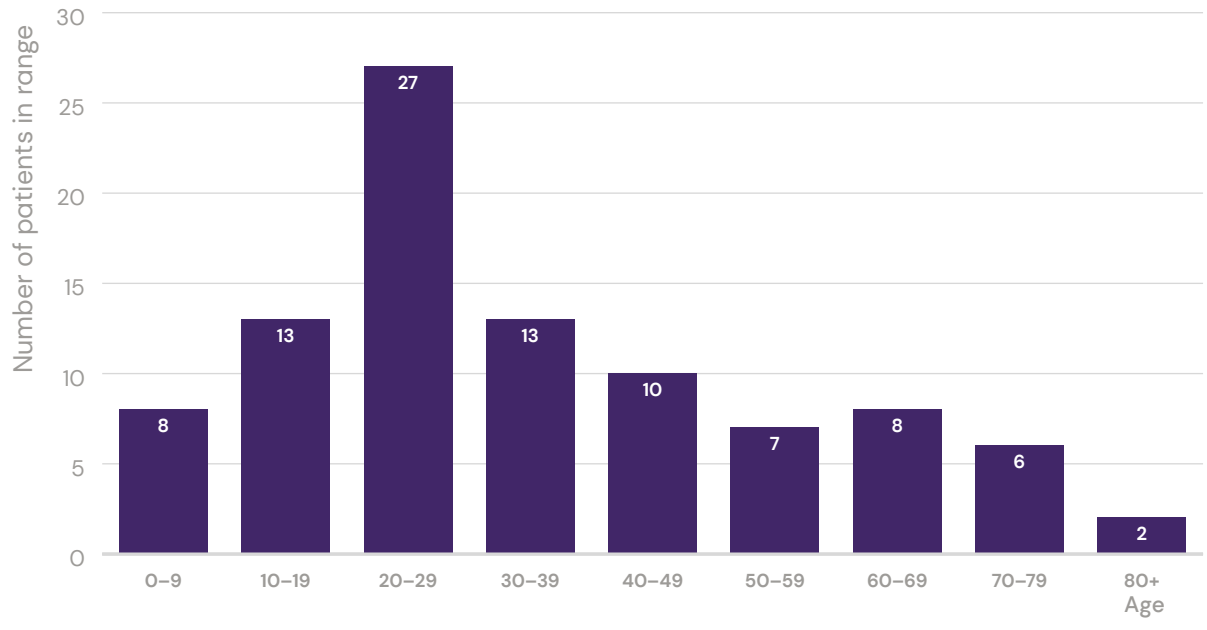
A helpful concept to introduce to teams who over-measure is to collect 'just enough' data to make a sensible judgement as to next steps. 'Just enough' data means collecting only what you need to inform decision-making. In QI, we start small and scale up. Often this means collecting data for a PDSA, or 10–12 data points for a run chart.

Example of Just Enough Data

Source: Institute for Healthcare Improvement.[96]

The Sunnybrook Health Sciences Centre in Toronto, Ontario, Canada, learned this lesson when they participated in the Institute for Healthcare Improvement's (IHI) Improving Asthma Care Breakthrough Series Collaborative in 1995. The team sought some baseline data regarding the age distribution of patients visiting the Emergency Department (ED) for asthma care. So, they put in a formal request to their Information Systems department for a report with this information. And then they waited. Impatient that the request was taking too long, one team member, an emergency doctor, decided to take the matter into his own hands. This physician went through the charts for all ED patients in a three-month period, and manually noted the ages of asthma patients. His informal research provided a sampling of 94 patients, with an age distribution as shown in the graph below.

Sunnybrook Health Sciences Centre
Ages of patients visiting ED for asthma, Oct–Dec
Total patients: 94



96 Institute of Healthcare Improvement. Know When Enough Data is Enough. www.ihi.org/resources/Pages/ImprovementStories/KnowWhenEnoughDataisEnough.aspx

The team had enough confidence in this data that it decided to proceed with its improvement agenda. Sure enough, when the Information Systems department finally delivered the report nearly two months later, it confirmed the team's instincts. With a sample more than four times the informal sample taken two months earlier, the results were nearly identical.

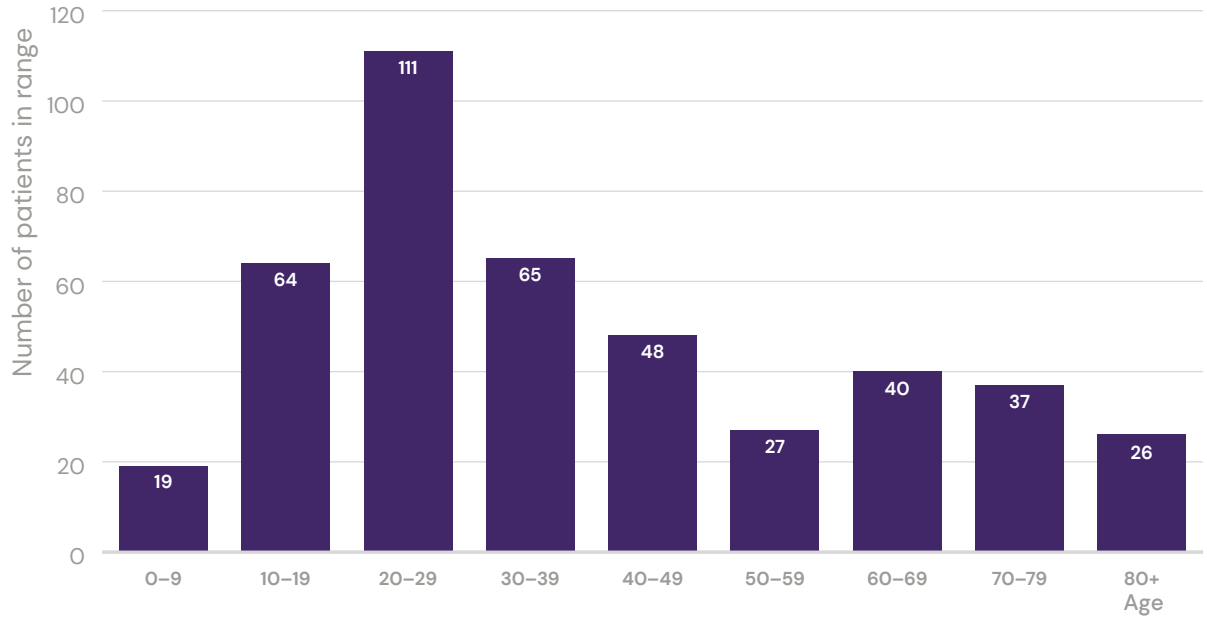
This team would have learned nothing more by waiting for more data. They saved valuable time by sampling and depending on their own sound judgment to know when enough data was enough.

Your role as a coach is to advocate for measurement – in particular, for the use of 'just enough' data to support improvement work.

Sunnybrook Health Sciences Centre

Ages of patients visiting ED for asthma, Fiscal '94–'95

Total patients: 437



Qualitative Data

Using qualitative data is an important way to understand how and why improvement interventions are working (or not). Many healthcare professionals are more familiar with quantitative data approaches and may be somewhat dismissive of qualitative data, referring to it as 'anecdotal'. However, qualitative data can provide rich insights that could help to get improvement work back on track and are invaluable to understand how to successfully spread an intervention that has been successful in one setting.

Qualitative research is a process of naturalistic inquiry that seeks an in-depth understanding of social phenomena within their natural setting. It focuses on the 'why' and 'how' rather than the 'what' of social phenomena, and relies on the direct experiences of human beings as meaning-making agents in their everyday lives. It is sometimes easiest to explain qualitative research and the data it generates in comparison to quantitative data. The table below compares qualitative and quantitative data.

Adapted from Renjith et al (2021)[97]

	Qualitative data	Quantitative data
Description	Narrative, presented through words	Numerical data
Focus	The 'why' and 'how'	'How many', 'How much'
Sample size	Typically small – saturation is reached when no new themes on the issue in question emerge	Typically large – seen as unreliable if a small sample
Design	Dynamic and responsive to changing context and circumstances	Fixed and universal operational definitions
Collection	Gathered through interviews, observations, review of documents	Gathered by measuring and counting
Analysis	Grouped by themes, reporting people's experiences	Statistical analysis, for example presented in statistical process control charts

Another way to explore the differences is to consider different research questions. The example below presents two different ways to approach consideration of adherence to medication regimes:

- Quantitative research question: *What proportion of people with coronary heart disease stop taking their medication as directed for a period of three consecutive days in a six month period?*
- Qualitative research question: *How do medication regimes shape the lives of people with coronary heart disease?*

Qualitative research gathers information through methods which allow open-ended conversations, with exploration of issues and themes as they emerge. The insights are usually related to the specific context, rather than seeking to rule out context. The data is presented in a narrative form and can characterise individual participant perspectives and experiences in great depth.

Qualitative data is used to generate themes or concepts and these in turn enable the identification and characterisation of patterns of behaviours, group interactions and individual perceptions. The exploration of these then help to develop hypotheses by identifying salient factors and informing predictions about relationships.

97 Renjith, V., Yesodharan, R., Noronha, J.A., Ladd, E., George, A. (2021). Qualitative Methods in Health Care Research. *International Journal of Preventative Medicine*.

Different Qualitative Methods

Many different methods exist in support of collecting and understanding qualitative insights. In this section we will focus on the following:

- Interviews
- Focus groups
- Stories
- Observation
- Documentary analysis
- Diaries/journals
- Surveys.

Interviews

Qualitative interviews enable improvers to gain detailed perspectives on the experience of the implementation of a QI intervention. It is usual to use an interview topic guide, which ensures that key issues are covered but used with flexibility to probe for further detail and clarity when needed, and allows the interviewee to bring in their own ideas and concerns, to an extent. Interviews can be used to understand patient or staff perspectives on particular services, processes or problems.

Interviews can be useful at various stages of improvement work: to help clarify the situation, learn about what matters to stakeholders, develop ideas, explore a particular topic in detail, or to evaluate the impact of the work. When done well, interviews offer the most descriptive insights in qualitative data collection.

In deciding how many interviews to do, particularly for evaluation, it is useful to consider 'saturation', the point at which no new issues are coming up and when a number of clear themes have emerged from the interviews. Therefore, there is no benefit on carrying out further interviews on the topic.

Focus groups

Like interviews, focus groups have a lot of potential in QI. They enable detailed perspectives to be gathered from a group discussion, which is guided by a facilitator to explore the identified issues, while again allowing flexibility to probe for further detail and clarity and to take account of related issues which group members wish to raise. Focus groups may provide less depth than an individual interview but have the advantage of stimulating discussion, so may lead to fresh insights, as ideas are exchanged among group members.

Focus groups are typically used to understand stakeholder needs, prioritise these needs, test concepts and seek feedback. They are generally more time consuming to arrange than individual interviews and require more resources, such as meeting rooms and refreshments if held in person, or familiarity of group members with online platforms if run virtually. Focus groups also require skilled facilitation. Considerations when planning focus groups include: the size of the group (usually between 5–10 people, to ensure that all group members have a chance to contribute); whether you want a group of people with similar experience (likely to generate more depth of discussion), or whether you want to include a range of people with different characteristics and experience to generate more breadth of perspectives. A skilled facilitator will ask open questions which create a 'ripple effect' of discussion around the topic.

Stories

Patient stories are often used to provide a 'human face' to patient safety problems. Storytelling is an effective strategy for growing and learning. Patients are encouraged to provide their own individual experiences, typically relating to a poor outcome or experience, as a form of learning. These are either presented in person, via video or even through social media (X (formerly Twitter), Facebook, blogs etc).

Patient stories are typically used at the start of a project to provide the groundwork for improvement. A story is one personal example and therefore stories are not used to build up thematic analysis in the same way as interview data, but to provide a motivation for investment in change.

Observation

Observation is a way of collecting data about the current or changed state of process, service delivery, or activities. When acting as an observer, the qualitative researcher should avoid interaction with people and events. The role is to note what happens in relation to some predetermined aspects of the situation, such as: how staff interact with each other and with service users; how efficiently a process is carried out; whether it works as intended; whether delays and workarounds are observed.

Observation is helpful to use at the outset of improvement work to enable a description of the issue and the current situation as it is observed, rather than based on assumptions of what is happening. Once an intervention has been developed and piloted, further observation can contrast with the original state and record what aspects of improved service are observed.

Documentary analysis

Analysis of existing (generally written) pre-existing materials such as patient information (printed or online), project plans, meeting notes, or patient safety incident reports. Documentary analysis enables an in-depth understanding of the current information available, reporting and recording of an issue of interest. Documentary analysis helps to understand the infrastructure and information that will need to be developed or revised to support an improvement intervention. Documentary analysis is used in evaluation studies to understand the story of a project and how it has evolved and changed in response to circumstances.

Diaries/journals

Improvement teams are encouraged to keep note of how they experience the process of developing, planning, implementing and evaluating improvement work. These contemporaneous notes are useful in understanding how challenges were dealt with, or why a change of approach may have been necessary as work progressed. A journal can provide rich qualitative information; it is an invaluable aid to reflect on what you would do differently next time and can be essential to enable a thorough evaluation of improvement work.

Qualitative or 'mixed methods' surveys

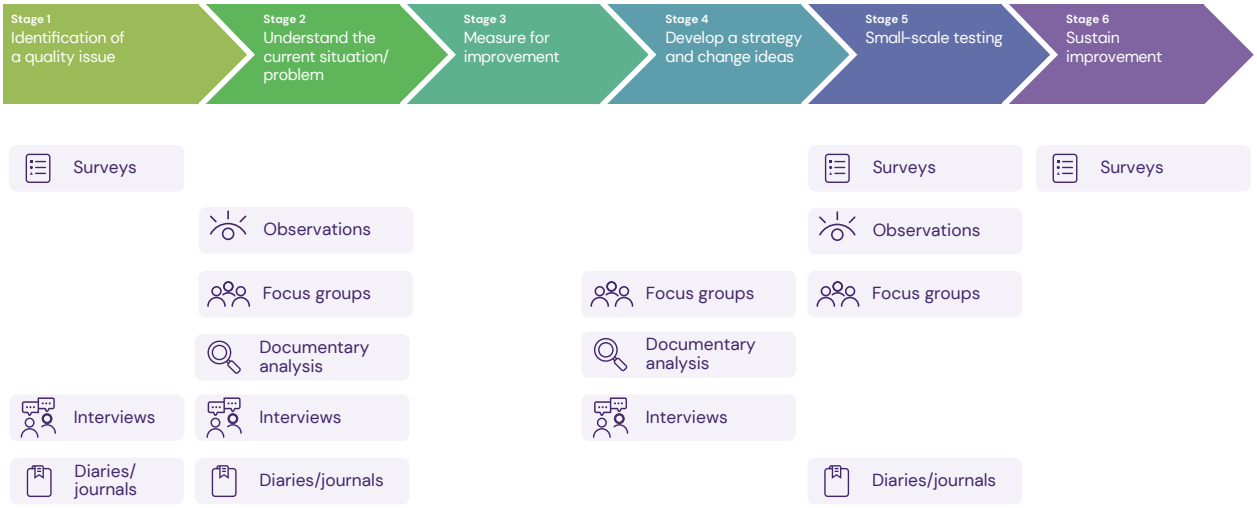
Surveys are often a mixture of questions which will generate quantitative data on analysis, such as *'the proportion of service users rating the service good or excellent'* and qualitative data: *'what aspects of the service would you like to see improved?'* Surveys tend to generate the most generalisable qualitative data. This is often because they are circulated to a much larger sample, hoping to generate a good response rate, so that the findings can be taken as indicative of the perceptions of many service users.

While a survey could be entirely qualitative in its approach, in most situations this is not very practical. Few people will be enthusiastic to respond to a survey which is all open questions, requiring respondents to write a narrative answer to each question. Many survey designs will include a mix of quantitative questions, where respondents apply a rating on a predetermined range, followed by open questions, inviting respondents to add information from their own experience.

Considerations for survey design are to keep the questionnaire as short as you can to cover your issues of interest. Include clear instruction on how to complete it. Test the questions to ensure that they are neutral, not leading, and clear to respondents. Put your most important questions first as not all respondents will complete the whole survey. Include options of *'N/A'* or *'did not use'* so that people don't skip questions and analysis is easier.

Using Qualitative Data Methods Through Improvement Work

When we consider the stages of typical improvement work, there are points at which qualitative data methods may be most helpful, as shown below. This isn't rigid – you should use intuition and group discussion to identify which methods may work best for the relevant stage of the QI work.



Your role as a coach in supporting the use of qualitative data is to:

- Encourage improvement teams to consider qualitative data alongside the quantitative data they are using to measure for improvement
- Provide practical examples of why it is just as important to know how and why an intervention is working (or not) using qualitative methods, as to record and analyse the quantitative data
- Guide teams to select the most appropriate qualitative method that will help produce insights for development and implementation
- Advise on application of qualitative data methods, such as the design of survey questionnaires, semi-structured topic guides for qualitative interviews and coaching on the things to consider when running focus groups
- Encourage the team to keep reflective journals as they develop and implement their QI work.

Presenting Data

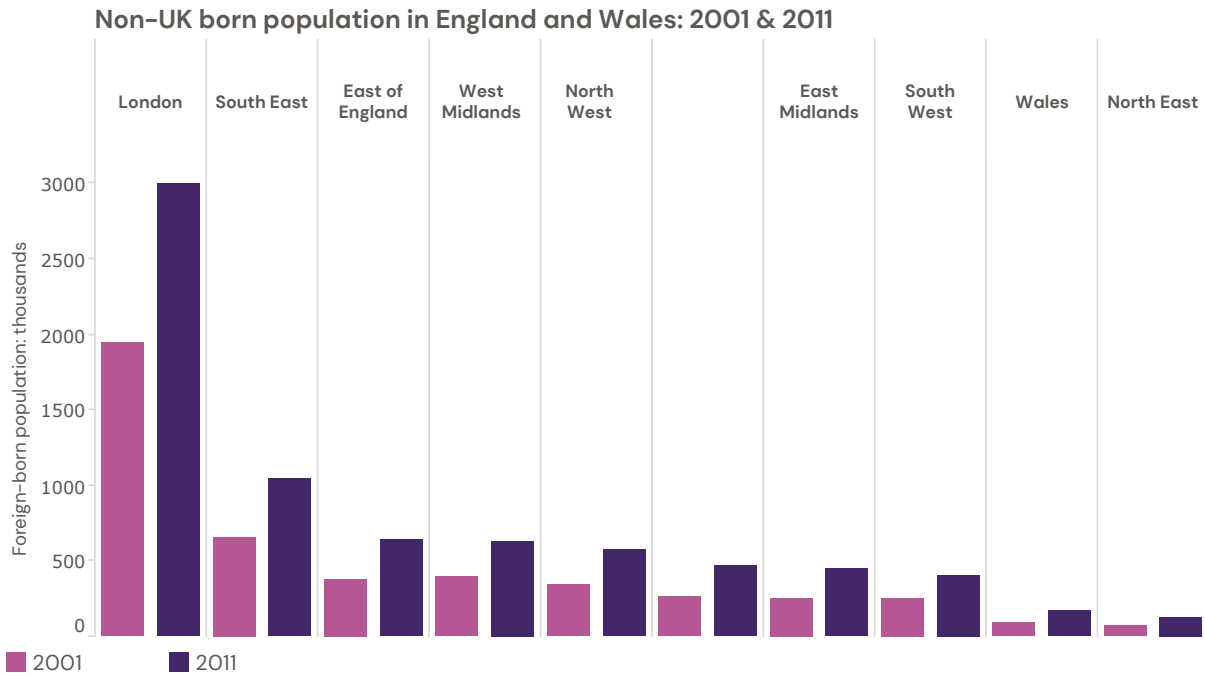
Authors
Sidney Beech and **Dave Grewcock**

By the end of this section, you will:

- Recognise different options for presenting data, including bar, Pareto and run charts
- Learn about statistical process control (SPC) charts and how to approach them
- Know how a team can use visual displays to best effect.

Data presentation is a key task for any improvement team. Data should be used continuously throughout improvement work to support decision-making, discussion, and engagement. Data is presented in a variety of formats in healthcare. Here we will focus on those that are used most frequently in improvement work.

Bar charts



Source: The Migration Observatory (2013)[98]

Bar charts are useful in presenting categorical data, such as patient age, disease and geography. In the example shown, we see a comparison of the number of non-UK born people living in different regions of England and Wales between 2001 and 2011.

Improvement teams often collect data that is discrete, such as in the example above (i.e. cannot be plotted continuously on a run chart). For example, much improvement work makes use of survey data from patients and staff. Bar charts easily convey information that may otherwise be in a table.

98 The Migration Observatory (2013). East of England: Census Profile. https://migrationobservatory.ox.ac.uk/resources/briefings/east-of-england-census-profile/

Pareto charts

The Pareto principle (also known as the 80/20 rule) states that for many outcomes, roughly 80 % of consequences come from 20 % of causes (the 'vital few'). Everyday examples of the 80/20 rule include:

- 80 % of speeding tickets come from 20 % of the population
- 80 % of a company's sales comes from 20 % of their clients
- People wear 20 % of their clothes 80 % of the time
- 80 % of all CO_2 pollution comes from 20 % of the biggest companies in the world.

This knowledge is highly useful in improvement work, as it helps us focus our energies where it matters most. By targeting the 'vital few', we can tackle just 20 % of the causes and get 80 % of the results.

Pareto charts help us to visualise what the 'vital few' are, to help us identify where we need to invest our time and energy.

Using Pareto charts in QI:

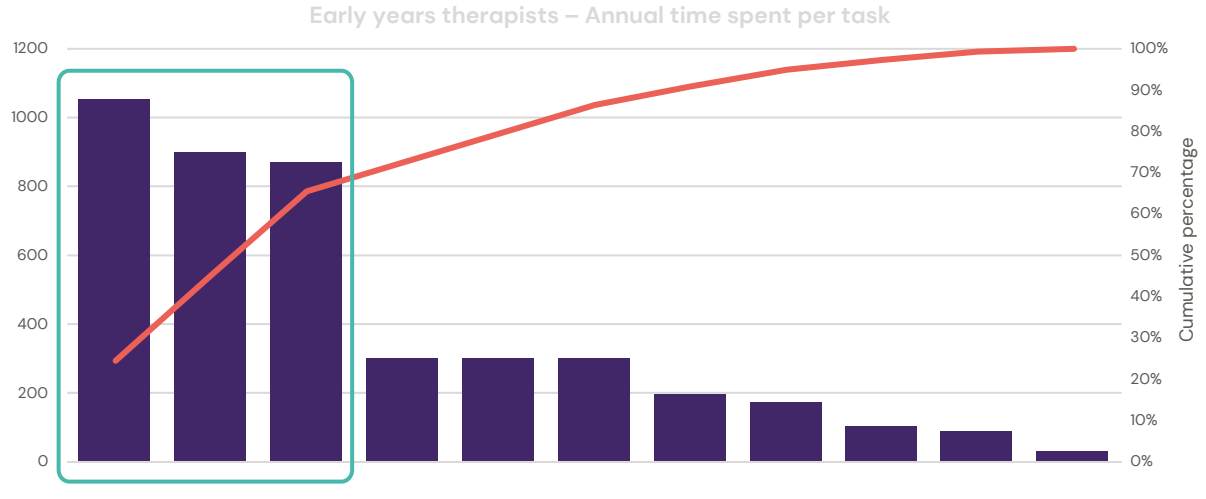
There are many templates and tools available (including MS Excel) that allow you to create a Pareto chart. The general steps to do so are outlined below:

- Decide which problem you want to know more about
- Gather the data and organise it into meaning categories (e.g. the different causes of the problem, location etc.)
- Input the data into a template, which will chart the data and calculate the cumulative frequencies
- Identify the 'vital few' using the chart and decide how to take action.

Example:

A team of Speech and Language Therapists felt they were spending too much time on admin and other non-clinical duties. They decided to undertake a time-in-motion study to better understand which tasks they were spending most of their time on. This is shown in the graph below. Using the insights from the Pareto chart they were able to identify which tasks they were spending mote time on. Using this insight, they developed change ideas to reduce their admin workload.

QI Example



Source: East London NHS Foundation Trust (2014)[99]

99 East London NHS Foundation Trust (2014). The Pareto Principle. https://qi.elft.nhs.uk/the-pareto-principle

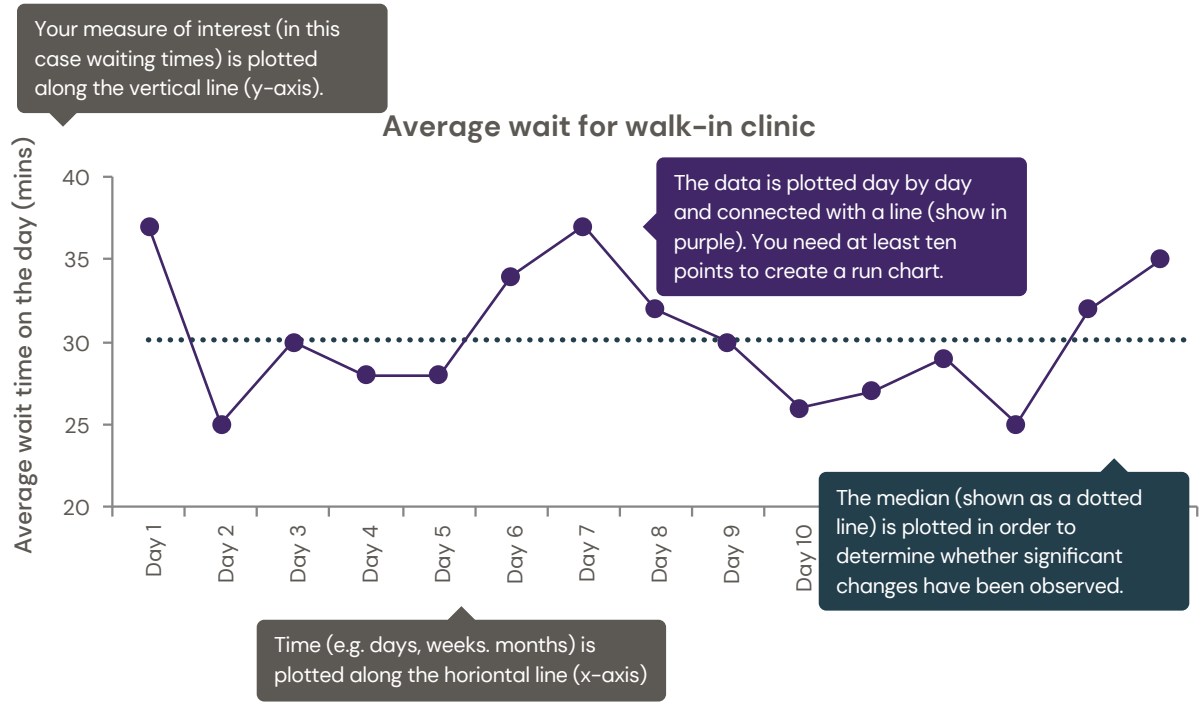
Run charts

Collecting and charting data over time enables an improvement team to find trends or patterns in their measures. Run charts are a common and useful tool used in quality improvement to plot data over time. They allow us to:

- Look at our data over time to assess performance and see whether there are any patterns
- Assess and show whether changes are resulting in improvement
- Monitor measures, to see whether improvement has been sustained.

The anatomy of a run chart

Below is an example of a run chart, with annotations to explain what it contains.



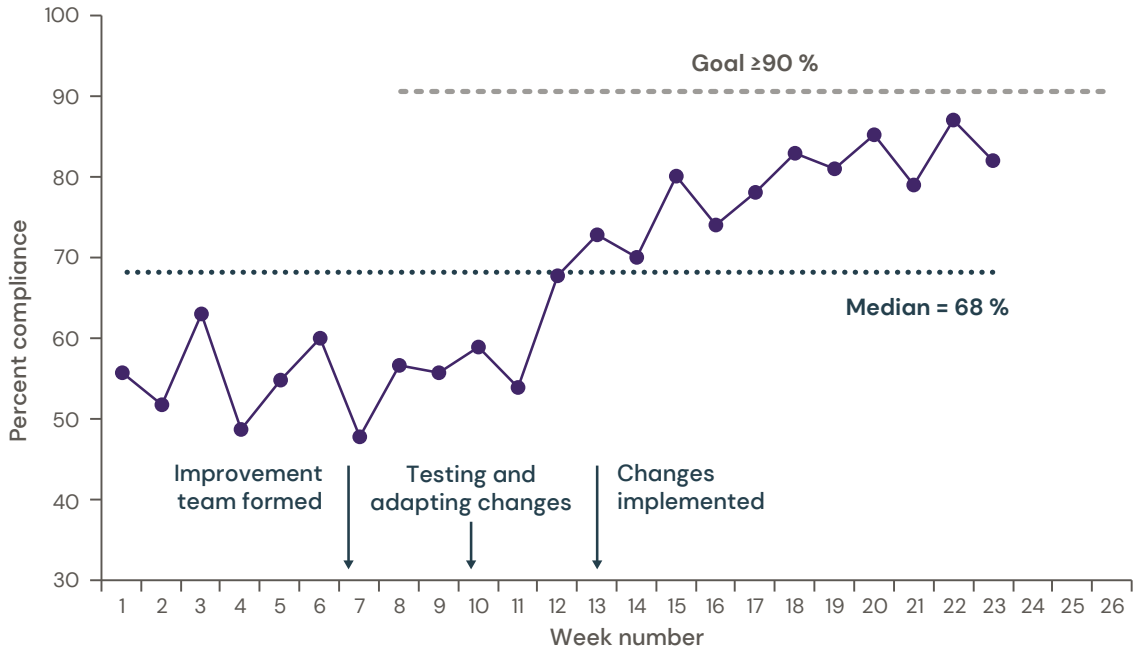
Using run charts

If you have at least 10–12 data points, there are four simple run chart rules you can use to help you assess whether there is any non-random (special cause) variation present:

- A trend (five or more points in the same direction)
- A shift (six or more points on one side of the median)
- Too many or too few runs (a run consists of one or more consecutive data points on the same side of the median)
- An astronomical data point.

Remember that you need a baseline as well as post-intervention data.

In the example below we can see evidence of special cause variation upon implementation of the changes.



Source: Perla R. J., Provost L. P., Murray S. K. (2011)[100]

100 Perla R. J., Provost L. P., Murray S. K. (2011). The run chart: a simple analytical tool for learning from variation in healthcare processes. *BMJ Quality and Safety*.

Statistical Process Control

Statistical Process Control (SPC) charts

Statistical process control (SPC) charts are used to study how a system or process changes over time. Just like run charts, they use statistics to detect non-random (special cause) variation in a dataset. However, SPC charts bring even more statistical rigour than run charts into the analysis of special cause. This is because they rely on more advanced rules to detect non-random variation, which is outlined on page 188.

Use an SPC chart when you want to:

- Understand your data over time using a more powerful tool than a run chart
- Differentiate between common cause and special cause variation
- Assess whether your process is stable and therefore predictable, or unstable and unpredictable
- Understand whether your process is capable of a desired level of performance.

If you have 20+ data points, an SPC chart will add statistical rigour to your data interpretation.

Coaching SPC

Improvement practitioners at all levels – including coaches – often see SPC charts as the most challenging and the most technically difficult element of QI methodology. It is sometimes seen as the 'pinnacle' of improvement practice and understanding; the ultimate test of whether you 'know' and 'do' QI 'properly'.

That's not really true, of course. SPC charts don't solve all measurement problems. There are plenty of situations where SPC charts aren't needed and wouldn't or couldn't materially contribute to measurement and understanding. Even where they are applicable, like any technique they have weaknesses alongside their great strengths.

But these aren't reasons to avoid getting a solid, practical understanding of SPC charts, enough to be able to create and use charts confidently, and to support others to learn to do the same. Some people actively avoid SPC charts, believing that they are a step too far for them, and that they need the input of an improvement analyst or other expert to create and explain the charts. This isn't true either. SPC charts aren't a late, sophisticated addition to quality improvement – they have been there since more or less the first origins of improvement thinking and the concept of statistical process control has informed how we 'do' QI'. To miss out on SPCs – either as a coach or a coachee – would be to miss out on some powerful thinking.

It is perfectly possible to design, create and deploy SPC charts even if you don't have any background in mathematics and statistics. Free software tools and Excel templates are available to create SPC charts and highlight what they may be indicating, so it is rarely necessary to do any form of calculation or graphical chart production. What is important is to understand the ideas that underpin the creation and interpretation of SPC charts, so that they are not misinterpreted and misused in a way that leads to incorrect conclusions.

Like any professional technique, there are a number of technical refinements and specialist variations of the SPC tool. We all understand what a screwdriver is, but there are different types of screwdriver for different applications. It is the same with SPC charts. We talk of 'SPC charts', but there are actually several different types of chart, for different specialist conditions and applications. It's complexities like this that can discourage those who are new to SPC chart thinking, and coaches and coachees alike can quickly become lost in discussion about different data and chart types with the result that they disengage from the SPC idea generally. The truth is that very few people who create, use, teach and interpret SPC charts have a deep enough background in statistics to really understand these technical differences and restrictions. Almost all of us have to take our SPC knowledge on faith from someone with expertise.

If in your exploration of SPC charts you come across references to 'p', 'np', 'u', 'c' and other charts, try not to be overwhelmed. Set them aside, at least for the time being. The approach captured in the Making Data Count[101] programme, amongst others, follows the school of statistical thought championed by statistician and quality control expert Don Wheeler, for a long time an associate of Edwards Deming. His argument is that although a wide variety of SPC chart types and applications exist, users can get most of the benefit of the SPC approach by understanding and applying just one chart type, the 'average moving range' or 'xmr' chart.

He describes the xmr chart as the 'Swiss Army knife' of SPC charts – good enough at a range of different applications to be generally applied. There are all manner of different corkscrews, but the one on a Swiss Army knife works well enough to carry always and use effectively almost everywhere. The xmr chart provides the best starting point to develop an understanding of the SPC approach. A slow, steady reading of Don Wheeler's book *Understanding Variation: The Key to Managing Chaos* (1993)[102] will support you to develop a greater understanding. Another useful tool is the FutureNHS platform.[103]

If the objective is to gain a working – rather than a technical – knowledge of SPC charts, there are still some concepts like variation and statistical significance to get a grip of. And there are various complications to SPC charts, such as when to recalculate the process limits, that can get involved, but are usually resolved by applying some simple rules.

As a coach you will help support teams to use SPC charts in their improvement work and once a team gets through any fear of the mathematics and statistics involved in SPC charts, none of these ideas are difficult to understand. It helps to get good teaching that strips the ideas right back to the bare bones, and to hear the same idea in different ways, different formats and perhaps from different people. Demystifying SPC charts for coachees – making them accessible as a way of making really robust decisions and drawing well evidenced conclusions – can be both powerful and rewarding.

101 NHS England. Making Data Count. www.england.nhs.uk/publication/making-data-count/
102 Wheeler, D. (1993). *Understanding Variation: The Key to Managing Chaos*. Longman
103 FutureNHS. https://future.nhs.uk/MDC/groupHome

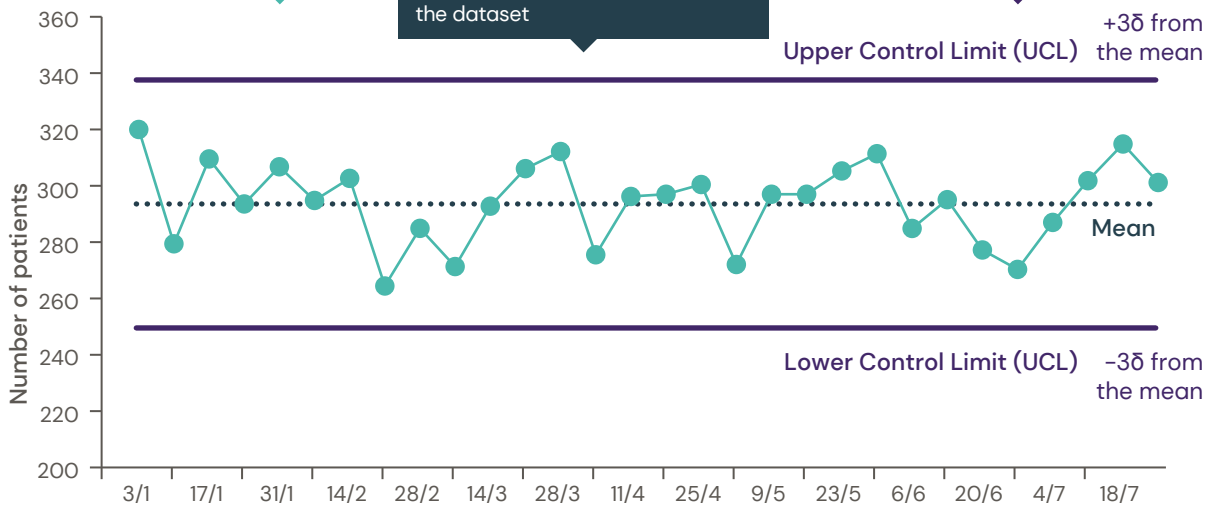
The Anatomy of an SPC Chart

Below is an example of an SPC chart, with annotations to explain what it contains.

The data is plotted continuously (in this case weekly) and connected with a line (shown in turquoise). You need at least 20 points to create an SPC chart.

The centre line – which for an SPC is the mean (average) value for the dataset

Control limits (upper and lower) allow us to assess whether the process is stable (and predictable) or not. They also allow us to detect some forms of special cause variation. These are shown here in purple.



Your measure of interest (in this case waiting times) is plotted along the vertical line (y-axis).

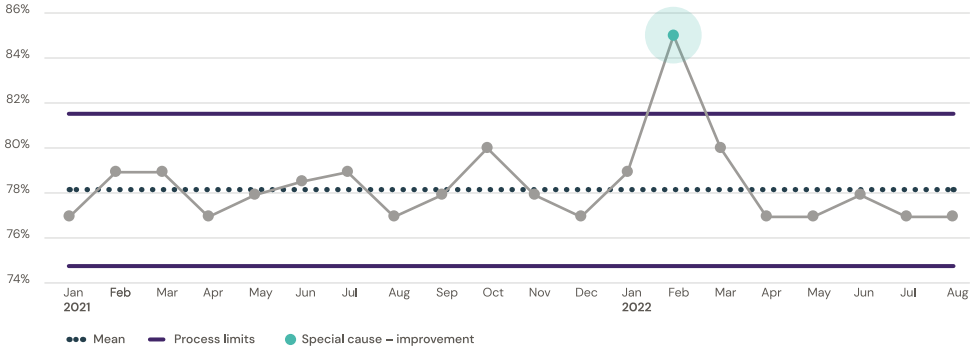
Time (e.g. days, weeks, months) is plotted along the horizontal line (x-axis).

The control limits are calculated using statistical rules. In general, understanding how these are calculated is not a 'must-know' as a coach.

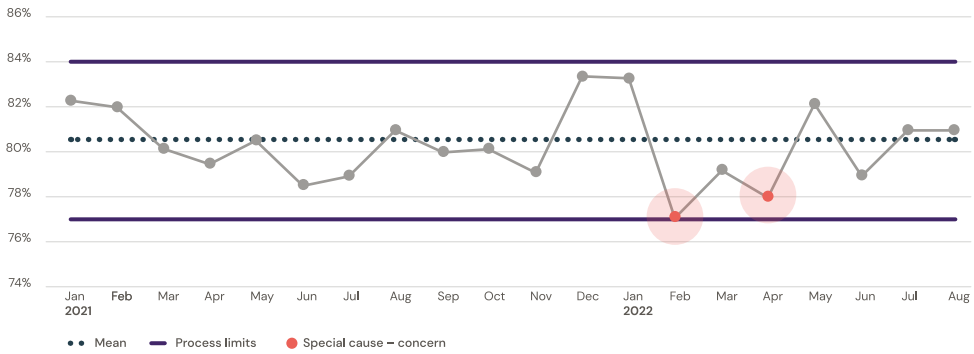
Using SPC Charts

If you have 20+ data points, there are four simple rules that help you to understand whether there is any special cause variation present:

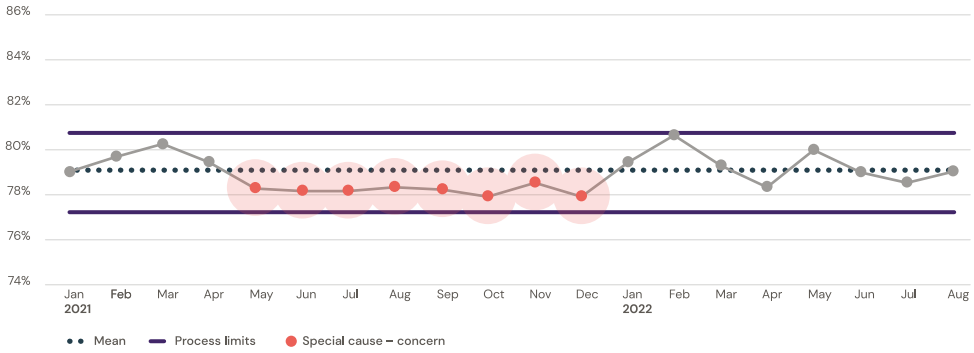
1 A single point outside the control limits



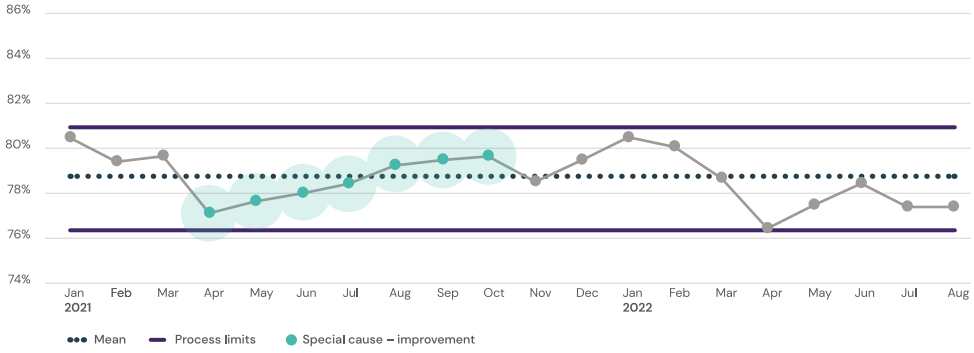
2 Two out of three consecutive points near a control limit (outer one-third)



3 A shift – seven or more consecutive points above or below the mean



4 A trend – seven or more consecutive points increasing (trend up) or decreasing (trend down)



Evidence of any of these rules demonstrates that there is an extremely high likelihood (<99 %) that there is special cause present in the process or system. In improvement work, this often means that the PDSAs that a team is introducing are working, and that the process/system is improving.

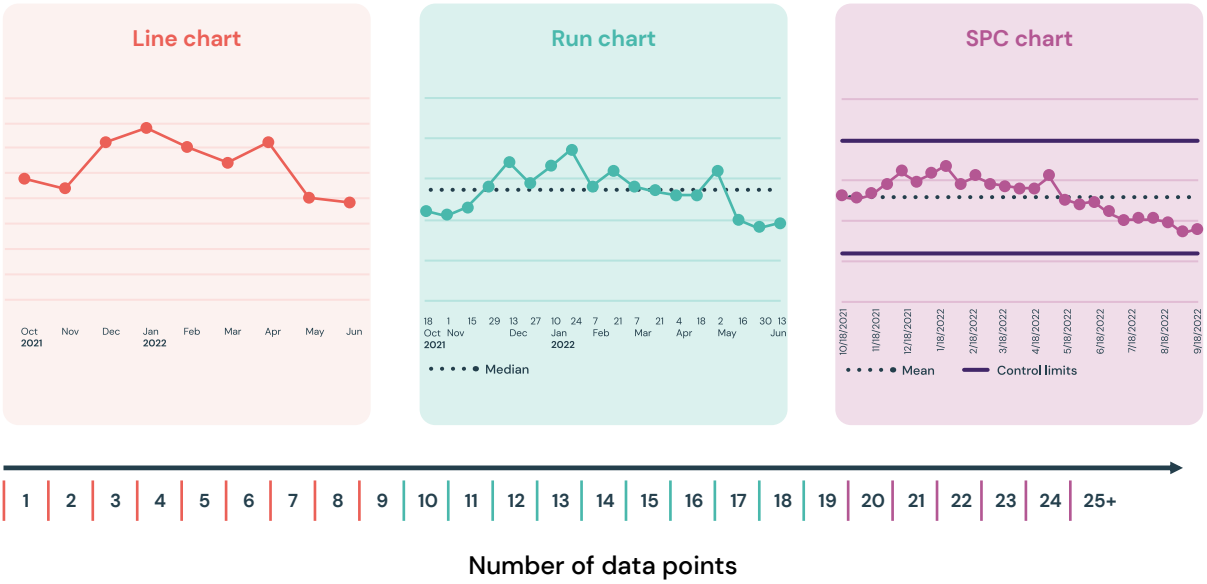
Useful resource:

NHS England has a tool for creating SPC charts.[104]

Deciding Which Chart is Best – Line, Run or SPC?

SPC charts should only be used when you have enough data. Generally speaking, this is when you have 20+ data points on a time-series chart. For example 20 days, weeks, months (or even hours, minutes or seconds).

The visual below outlines when to use each chart.

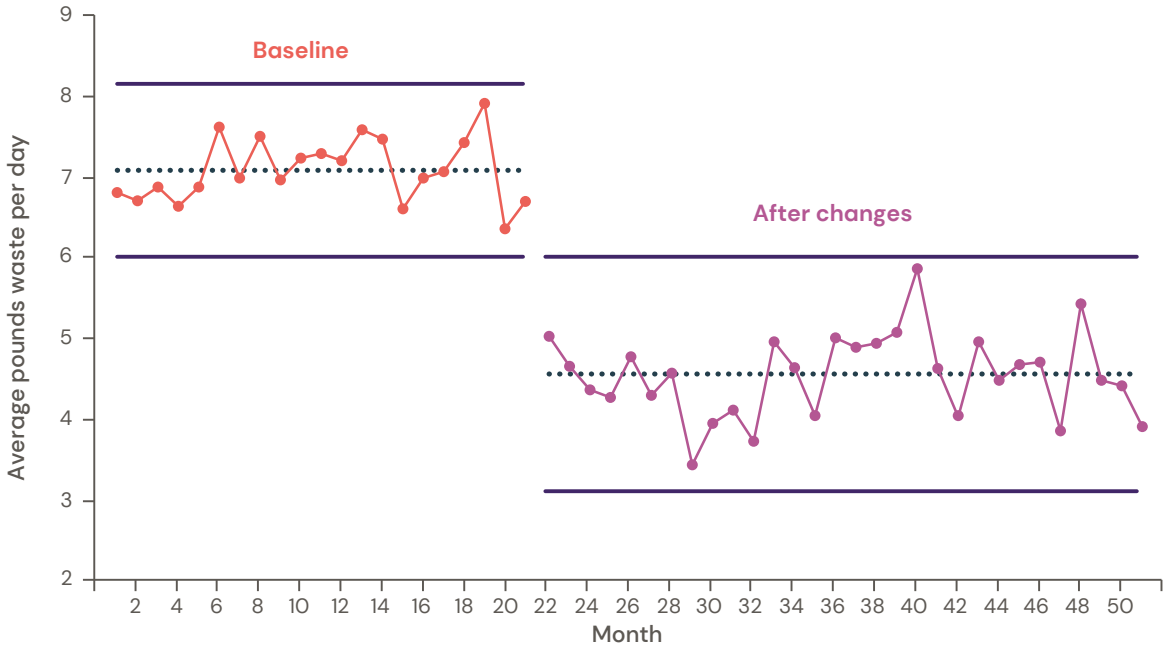


104 NHS England. Statistical Process Control tool. www.england.nhs.uk/statistical-process-control-tool/

Re-basing the mean and control limits

When special cause variation is evident in a chart (through rules 1–4 outlined above) **and** if there is a good understanding of the reason why special cause is in place (e.g. a team's QI work), then you can re-base the chart.

Re-basing the mean and control limits helps teams to visualise how much they have improved by. The example below shows a re-based SPC chart with new mean and control limits. Here we can see the average pounds in waste per day has reduced from more than 7 lbs to less than 5 lbs.



Source: Benneyan J. C., Lloyd R. C., Plsek P. E. (2003)[105]

105 Benneyan J. C., Lloyd R. C., Plsek P. E. (2003). Statistical process control as a tool for research and healthcare improvement. *Quality and Safety in Health Care*.

Visual Displays

Visual displays are a simple tool used by improvement teams to provide updates and insights into their QI work at a glance. They are often created on whiteboards or blank walls, with a specific focus on data, learning and engagement. Examples of two visual displays are shown below.

Image credit @LothianACAS on X
https://x.com/LothianACAS/status/1384606175002460168/photo/1

Image credit @DrEdFitzgerald on X
https://x.com/DrEdFitzgerald/status/963514140936486912/photo/1

These displays are often composed of different sections that relate to the improvement work, such as:

- The team working on the QI work and how to contact them
- The problem the team is tackling, sometimes with further detail and analysis such as through a fishbone diagram
- The aim
- The key data for the QI work such as the outcome measure and a process measure that reflects the current changes that are being tested
- Theory of change, often displayed through a driver diagram
- PDSA cycles and other changes, as well as any key learning
- An area for others to contribute their thoughts and feedback.

Often many of these sections will be annotated or will have sticky notes to provide further insights or to allow others to contribute. Some teams will huddle around the visual display frequently to discuss progress, maintain momentum and showcase their work.

Top Tips for Creating a Visual Display

- **Keep it simple.** Teams should keep boards simple, especially at the beginning. They may start with process measures that can lead to immediate action, such as those that track fidelity to established, standard work. Teams should also choose items for display on the board that can be updated frequently.
- **Include visual tools.** Charts, graphs, and images provide useful guidance to the team. Over time, teams can add items such as huddle agendas, patient feedback, and examples of standard work (e.g. checklists or care protocols).
- **Carefully choose the board display location.** Display the board in a location that offers both convenience and a comfortable level of privacy. Staff may initially resist displaying performance data in public, especially if results do not meet performance targets. Teams may consider establishing the visual display in a discrete location, such as in a staff break room. Over time, as teams gain trust, they may transition to a location that is more visible to patients and families. Try to find a location that can accommodate a stand-up daily huddle at the board, even if the team is not yet conducting huddles.
- **Use the board to communicate with leaders.** The visual display can offer helpful information to senior leaders that reduces paperwork and meeting frequency. Leaders can use the board to ask questions and engage the team in discussions about the work, and to drive improvement rather than judge the team for poor performance.
- **Delegate maintenance.** Team leaders will need to ask for volunteers or assign team members to update each item on the board, to ensure the most current information is displayed.

Measurement Considerations

Authors
Sidney Beech, **Agnes Kiraly** and **Hannah Pearson**

By the end of this section, you will:

- Recognise that people may change their behaviour as a result of being observed, and be prepared to take measures to address this
- Consider how you can ask questions that support teams to come up with robust measures to evidence improvement.

The Hawthorne Effect

When we see that there have been some positive changes as a result of improvement work, we can't always be sure that they are going to be long lasting. There can be many reasons for this. One of them is called the Hawthorne effect.[106]

The Hawthorne studies

The Hawthorne studies were initiated in 1924 by the management of the Hawthorne plant of the Western Electric Company in Chicago, Illinois, in the United States. They were trying to identify factors which affected productivity. The experiment tested the effect of different variables on productivity, such as the number of breaks or levels of lighting. The groups were observed and every test increased productivity, even in the control group – but the tests did not explain the increase in productivity during the experiment.

After interviewing the people participating, it was found that the increase in productivity was caused by the fact that people knew about the experiment. People changed their behaviour as a result of being observed. This is known as the Hawthorne effect.

Hawthorne and QI

As a coach, you need to make sure that you are aware of the importance of the Hawthorne effect. Improvements made as a result of people's awareness of being observed, or just because there is a focus on that area, are not likely to last. You need to make sure that you help teams to assess the sustainability of their changes to ensure long-term positive impact.

When there is a focus on something, whether it is good or bad, it is likely that people will start to change their behaviour. For example, if you know that someone is doing an audit on handwashing, you might be a bit more thorough when washing your hands than you would have been otherwise. This can often be seen in improvement work. You may start to see positive results, but it's important to explain the Hawthorne effect to the team and ask:

- Are the improvements a result of the changes being made, or is it because people are talking about this issue?
- When the focus comes to an end and this work becomes business as usual, how can we ensure that this standard is maintained?

As a coach, you should highlight the Hawthorne effect to teams undertaking improvement work and help them question if this could be happening in their work. If so, work with the team to put in place measures to ensure the sustainability of the change.

106 Wickstrom, G. and Bendix, T (2000). The "Hawthorne effect" - what did the original Hawthorne studies actually show? *Scandinavian Journal of Work, Environment and Health*.

Coaching Measurement – Questioning

As a coach, the most powerful tool you can use is to ask the right question. Below are examples of questions you may put to teams to help them to come up with robust measures that evidence their improvement work.

Topic	Examples of questions:
What to measure	• What is the aim of the improvement work and how could we measure that aim? • What are the processes and activities that have an impact on the outcomes? • How are these processes performing? How do you know? • What will the impact be on other parts of the system if one process is changed? • Will there be any side effects that we haven't thought of yet? • Will it be useful to use qualitative data? • How will we know that the change will lead to an improvement?
When to measure	• Do we know what's happening now? How can we prove that? • How can we prove that this is sustained?
How to measure	• How can we ensure that everyone collects this data in the same way? • Is this data already collected? If so, do you know where to find it/who you could speak to? • Can we automate this? • Is there a plan (even if informal) for each measure: – How will the data be collected? – How will it be analysed? – How will it be presented? – How often are we doing this? • How will this inform our QI work?
Engaging people in data	• How can we get more people engaged with this? • Do we need to share this with anyone? • Who else might be interested in this?
Presenting data	• In what format will the data be presented for each measure? • How often will these be reviewed? • Do you know how to create these charts? • What's the best way to present the data in that forum? • How can we communicate that to the audience?
Analysing data	• What is the data telling you? • Did what happened match your predictions? • What do you need to do now that you are looking at the data? • Has the improvement been sustained?

Self Directed Task

Activity:
Help a team to put their data into an SPC chart

What questions did you use?

What aspects did you have to tell or teach?

Would you do anything differently next time?

Reflection:
Questions to ask yourself as coach

- Am I confident in coaching teams in measurement?
- What skills do I need to develop to support me with coaching measurement?
- Are the teams I am coaching using a sensible and appropriate approach to measurement?
- Who is in my network to support me with questions or tasks I am unfamiliar with?

06

Human Side of Change

This chapter focuses on

Human Behaviour in QI

Authors
Sidney Beech, Anna Burhouse and **Samantha Machen**

By the end of this section, you will:

- Know about the different types of challenge in change
- Recognise resistance to change, and know how to work with it
- Understand how the COM-B model and behaviour change wheel can help improvement teams.

Behaviour Change

Technical improvement tools bring great value to improvement work. Less experienced improvement teams often rely heavily on technical tools to help them with their change. The power these tools bring is that they can help to structure an approach to improvement, to know when a change is an improvement and to help teams make a case for change, amongst many other benefits.

As a Quality Coach, you will find that teaching these 'technical' QI methods is relatively straightforward. However, when people try to apply them in the messy reality of a complex adaptive system like healthcare, they can quickly become frustrated that things don't go to plan. They soon realise that the 'human' side of leading QI is far from easy. Research shows that the vast majority of improvement practitioners experience more challenges with relational and psychological factors than technical factors.[107]

In their book T*he Practice of Adaptive Leadership* (2009)[108] Heifetz, Linsky and Grashow identified two types of challenges in change – technical and adaptive change.

The table below outlines key distinctions between these two challenges.

Technical change	Adaptive change
Easy to identify	Difficult to identify (easy to deny)
Often lend themselves to quick and easy (cut-and-dried) solutions	Require changes in values, beliefs, roles, relationships, and approaches to work
Often can be solved by an authority or expert	People with the problem do the work of solving it
Require change in just one or a few places; often contained within organisational boundaries	Require change in numerous places; usually cross-organisational boundaries
People are generally receptive to technical solutions	People often resist even acknowledging adaptive challenges
Solutions can often be implemented quickly – even by edict	'Solutions' require experiments and new discoveries; they can take a long time to implement and cannot be implemented by edict

Source: Adapted from Heifetz and Laurie (1997)[109] and Heifetz and Linsky (2002)[110]

107 Baker, N., Suchman, A. and Rawlins, D. (2016). Hidden in Plain View: Barriers to Quality Improvement. *Physician Leadership Journal.*
108 Heifetz, R. A., Linsky, M. and Grashow, A. (2009). The Practice of Adaptive Leadership. *Harvard Business School Press.*
109 Heifetz, R. A. and Laurie, D. L. (1997). The Work of Leadership. *Harvard Business Review.*
110 Heifetz, R. A. and Linsky, M. (2002). Leadership on the Line. *Harvard Business School Press.*

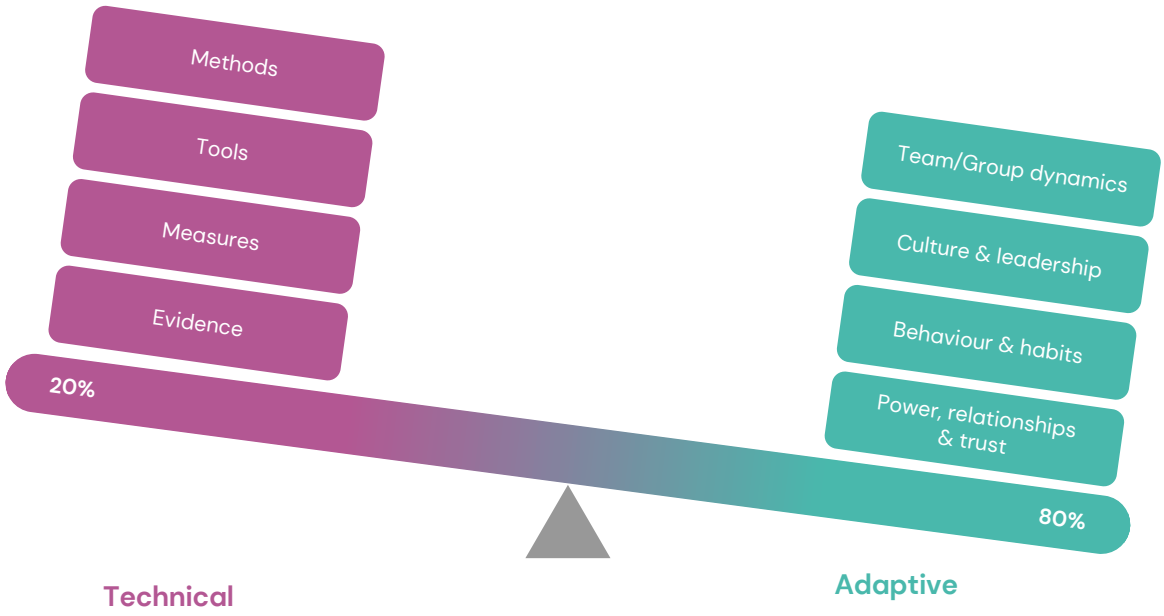
Perhaps unsurprisingly we know that around 20 % of improvement is technical, i.e. the use of the tools, methods and measurement techniques etc. Most of the energy in improvement work – 80 % – is adaptive, i.e. about the way people work together, how they communicate and interact etc.[111] Your role as a Quality Coach is to help improvement teams learn how to lead relationally and to anticipate this adaptive side of change as being the norm.

In this section of the handbook, we will explore how you can better equip teams with the necessary people skills they will need to lead QI work effectively.

Core 'adaptive' skills include:

- Effective and inclusive communication skills
- An ability to lead in a psychologically safe way
- An ability to bring people together in pursuit of a shared vision and purpose
- Tapping into intrinsic motivation for change
- Understanding how to overcome habits and the use of behavioural techniques to help ease resistance to change
- Helping teams/systems to overcome difficult dynamics/politics etc.
- Supporting the growth of social networks and how to better connect people within organisations or systems.

An important first step you may need take with teams is to help them understand that people skills are not 'soft' or 'fluffy', or skills that are 'nice to have', and to start seeing them as the most important part of any improvement approach.



Adapted from: Burhouse, A. and Bailey, S. (2019)[112]

111 Bailey, S. and Burhouse, A. (2019). From super-hero to super-connector, changing the leadership culture in the NHS. *Future Healthcare Journal.*

112 Ibid.

Resistance to Change

Many improvement practitioners will experience resistance to change at some stage of their improvement work. Resistance is a normal and expected part of any change initiative.

Change management specialist Rick Maurer outlined three different forms of resistance that we commonly face in improvement work, outlined below. Once a team understands the type of resistance they face, they can develop strategies to work with resistance and develop their improvement work further.[113]

3 Levels of Resistance

Level 1

'I don't get it'

If someone doesn't understand a proposed change, then they are much less likely to support it. When this happens, team should engage with anyone who doesn't understand the idea, before they get so confused that they lose interest altogether. Level 1 feelings may result from the following:

- Lack of information
- Disagreement with data
- Lack of exposure to critical information
- Confusion over what it means.

Working with this type of resistance

Remedying this type of resistance relies on the use of facts, figures and data. Teams should avoid using jargon or highly technical phrases (unless all stakeholders are very familiar with them).

By answering the question 'why is the change needed?' in a clear way, you can often tackle this level of resistance.

Teams should think about their audience and how they can best convey important information in a simple way. People take in information in different ways. Will pictures, models, slides, or an on-site walk-through help? Clear, thoughtful, two-way communication is the key to overcoming 'I don't get it'.

113 Maurer, R. (2016). *Beyond the Wall of Resistance*. Bard Press.

Level 2

'I don't like it'

Sometimes your idea can trigger an emotional response, typically rooted in fear, that causes another person to be hesitant and unsure about the idea or actively oppose it. These fears may include concern that it may make the individual look bad or lose status, worry that the idea may put their job at risk or nervousness that the idea will cause them to fail.

The emotions behind 'I don't like it' get in the way of productive communication. If they aren't openly discussed, these fears fester until what was once a tiny bump on the road to implementation becomes an enormous boulder blocking your way. Recognise and address these fears, and your idea is more likely to continue moving forward.

Working with this type of resistance

Emphasise what's in it for them. People need to believe that the change will serve them in some way. For example, work will be easier, relationships will improve, career opportunities will open up, or job security will increase.

Get them engaged in the process. People tend to support things they have a hand in building.

Exploring the question 'how can the fear of change be reduced?' can help identify strategies for this level of resistance.

Level 3

'I don't like you'

At this level people are not resisting the idea – in fact, they may love the change you are presenting – but they are resisting you. Maybe their history with you makes them wary. This may relate to individuals not trusting the person leading the change, or not trusting you. Or perhaps they are afraid that this will be a 'flavour of the month' like so many other changes, or that you won't have the courage to make the hard decisions to see this through.

Working with this type of resistance

At this level, you need to ask yourself 'how can we mend relationships?'. Generally speaking, there are two main approaches to this level of resistance:

1. **Working with the resistance yourself**
   If you plan to engage with the resistance yourself, you need to demonstrate that you are the right person to lead this change initiative. Keep commitments. Demonstrate that you are trustworthy. Find ways to spend time together so they get to know you (and your team). This is especially helpful if the resistance comes from 'who you represent' and not just from your personal history together. Allow yourself to be influenced by the people who resist you. This doesn't mean that you give in to every demand, but that you can admit that you may have been wrong, and that they may have ideas worth considering.
2. **Seek support from others to represent the work on your behalf**
   Consider who has the best existing relationships with those who are exhibiting the level 3 resistance. Can you get their support to engage with the resister, understand their challenges and develop a strategy to go forward?

Using this model as a coach

This model can be a useful tool to share with a team when they are facing (or expect to face) resistance to change. By using this as a diagnostic tool, they can then develop suitable strategies to work with resistance.

Possible questions to ask to explore resistance with teams you are coaching:

- What techniques have you used/will you use to engage with your stakeholders?
- What is your understanding of how your stakeholders view your improvement work? What assumptions have you made?
- Does everyone understand what change is required and why?
- What barriers or push-back do you anticipate from stakeholders? Why?
- How will you use feedback from people to inform QI work and decision making?

The COM-B model and Behaviour Change Wheel

What Is COM-B?

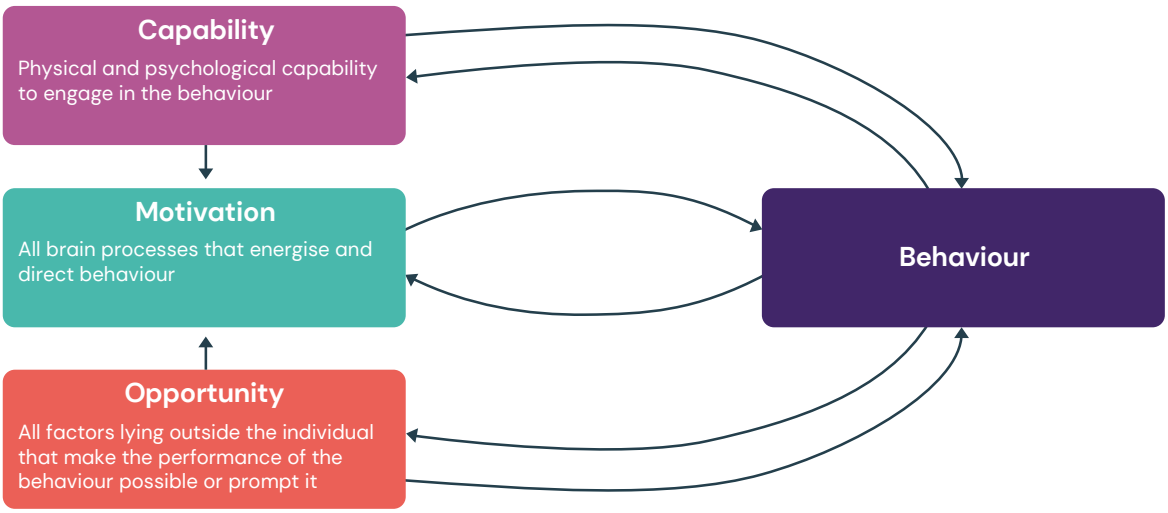
Improvement work often requires individuals to change their behaviour in some way, for example by introducing a new way of working. Understanding behaviour change can therefore be useful when coaching teams through their QI work. If we do not understand behaviour, how can we know what it takes to change it? There are many models of behaviour, each one designed to help us better understand what drives behaviour and how we make decisions.

The COM-B model[114] proposes that there are three components to any behaviour (B): **Capability** (C), **Opportunity** (O) and **Motivation** (M).

In order to perform a particular behaviour, one must:

- feel they are both psychologically and physically able to do so (C)
- have the social and physical opportunity for the behaviour (O), and
- want or need to carry out the behaviour more than other competing behaviours (M).

As each of these components interact, interventions must target one or more of these to deliver and maintain effective behaviour change.



114 Michie S. et al. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science.*

Example – Riding a bike

Current behaviour: I cannot ride a bike.

Target behaviour: I want to ride a bike.

For me to be able to ride a bike, I should consider if I...

- Have the capability
  - Do I know how to ride a bike and can I do so confidently?
  - Am I physically able to ride my bike?
- Have the opportunity
  - Do I have access to a bike I can ride?
  - Do I have somewhere to store my bike?
  - Do I have the time to ride a bike?
  - Is riding a bike a safe thing to do where I live?
  - Are there bike routes and bike lanes?
  - Is riding a bike a common thing to do?
- Have the motivation
  - Do I want to ride a bike? Perhaps I would prefer a scooter?
  - Do I understand the benefits of riding a bike?
  - Do I understand the drawbacks?

Using the COM-B Model as a Coach

The COM-B model can be a useful tool to help teams diagnose and understand behaviour related to their improvement work. This is often done:

a. Before embarking on tests of change, by considering what aspects of behaviour need to change and what support people need to bring about a desired behaviour change.

b. During or after tests of change, asking 'why aren't we seeing the behaviour change we'd hoped for?', or 'what else should we consider testing or implementing to bring about the desired behaviour change?'.

Your role as a coach will be to encourage teams to consider the three aspects of behaviour (capability, opportunity, and motivation) and how they relate to the planned or ongoing QI work. This will help them to understand whether individuals have all they need to enact the new behaviour. An overview of this is shown in the table on the next page.

Capability	Capability refers to whether we have the knowledge, skills, and abilities required to engage in a particular behaviour. There are two different types of capability: • Psychological capability – an individual's knowledge and psychological strength, skill, or stamina • Physical capability – an individual's physical strength, skill, or stamina.
	How can you coach teams to explore this component of COM-B? Ask questions such as: • How have you checked that everyone is able and confident to perform this new task? • What strategies will you use to build capability? • What approaches have you used to consider different perspectives and challenges for different stakeholders and key players? • How have other similar change initiatives (successful or not) built capability?
Opportunity	Opportunity focuses on the external factors which make the execution of a behaviour possible. There are two different types of opportunity: • Physical opportunity – opportunities provided by the environment e.g. time, location, and resource • Social opportunity – opportunities as a result of social factors, such as cultural norms and social cues from groups.
	How can you coach teams to explore this component of COM-B? Ask questions such as: • What barriers exist or could exist in the future that prevent someone from performing this new task/behaviour? • How does each individual's environment help and hinder them in this regard? • What methods have you used to get feedback from users? • What opportunities already exist?
Motivation	Motivation refers to the internal processes which influence our decision making and behaviours. There are two components to motivation: • Reflective motivation – reflective processes such as making plans and evaluating things that have already happened • Automatic motivation – automatic processes, for example an individual's desires, impulses, and inhibitions.
	How can you coach teams to explore this component of COM-B? Ask questions such as: • What are the long-term benefits of the change? How are these communicated to people involved in this improvement work? • How can you make the change seem the more desirable option as opposed to the current practice? • Have you thought about 'what's in it for me?' and the individual's personal benefit for the change?

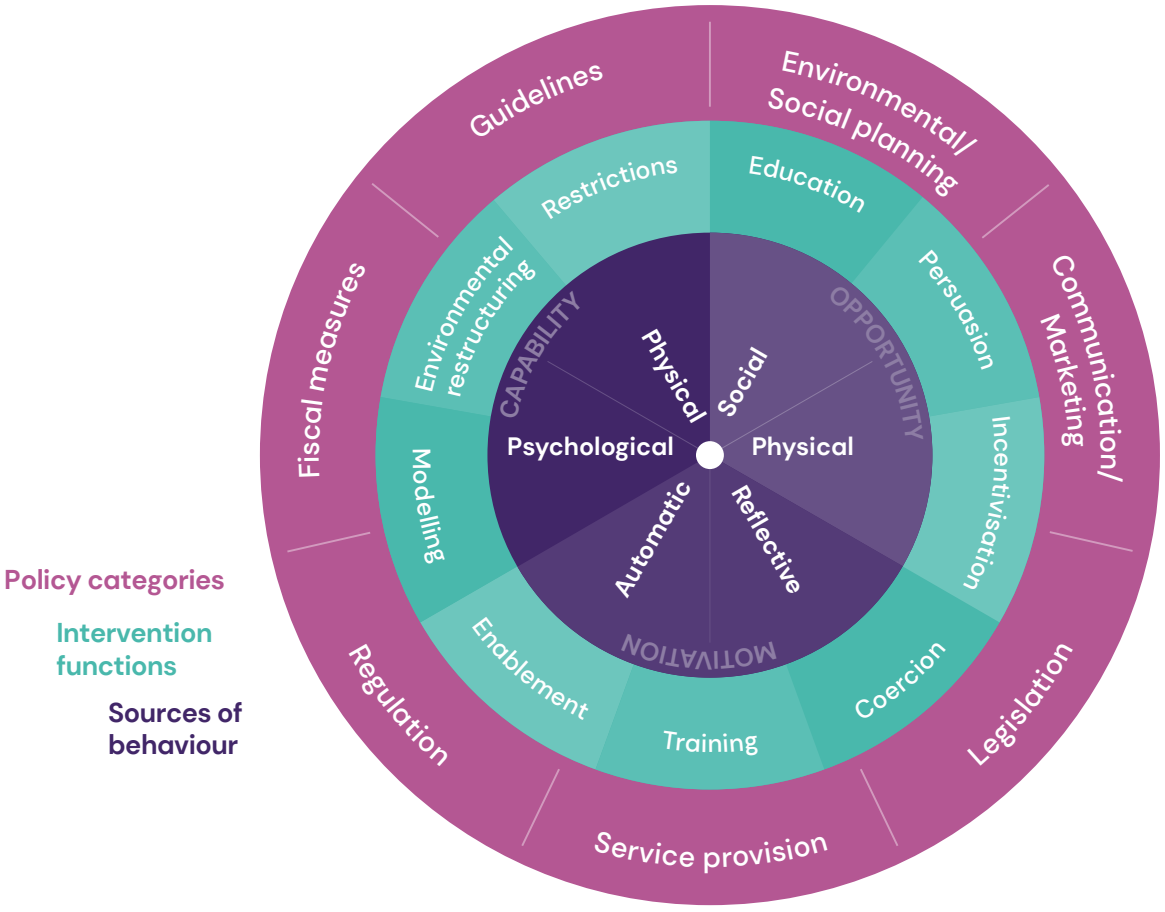
Once a team has explored what behaviour change is required and what components of COM-B may need focused work, then the next step is to select appropriate and evidence-based interventions. This is done using the behaviour change wheel.

Behaviour Change Wheel: The Right Intervention For the Target Behaviour

The behaviour change wheel[115] is a tool designed to help teams select the *ideal* interventions, based on whether an individual needs to build their capability, opportunity, or motivation regarding the proposed change. This helps us to ensure the interventions we use actually address the challenge at hand and are evidence based. The behaviour change wheel is used in conjunction with the COM-B model. A visual representation of the wheel is shown below.

It is composed of three parts:

1. 'Sources of behaviour' – i.e. COM-B shown in the centre.
2. 'Intervention functions' shown in the middle. These are the most important aspect for us in improvement.
3. 'Policy categories' shown around the edge. These are more appropriate at a socio-political level, beyond the scope of QI.



115 Michie S. et al. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*.

Intervention functions explained

Let's imagine that we are working on a change initiative that is focusing on reducing the number of deaths associated with cardiovascular disease (CVD). One of our primary drivers is about diet and healthier eating, given the evidence suggests that unhealthy diets contribute to a large number of CVD-related deaths. One target behaviour we might focus on as part of this could be encouraging individuals at higher risk of CVD to eat healthier.

Intervention function	Definition	Example based on healthy eating
Education	Increasing knowledge or understanding.	Providing information to promote healthy eating, such as what constitutes a balanced diet.
Modelling	Providing an example for people to aspire to or to imitate.	Using people of key influence to demonstrate the joys of cooking and healthy eating e.g. through Instagram adverts or other social media.
Persuasion	Using communication to induce positive or negative feelings or to stimulate action.	Using imagery to motivate healthier eating.
Incentivisation	Creating expectation of reward.	Giving vouchers when buying a healthy food option.
Coercion	Creating expectation of punishment or cost.	Putting a taxation on unhealthy foods, such as the 'sugar tax' imposed in the UK on sugary drinks.
Training	Imparting skills.	Providing a healthy eating cooking class at the local community centres and schools.
Restriction	Using rules to reduce opportunity to engage in behaviour or reduce opportunity to engage in competing behaviours.	Prohibiting high fat and sugar content meals in schools.
Environmental restructuring	Changing the physical or social context.	Putting healthier option snacks instead of junk food snacks near the queues in shopping centres.
Enablement	Increasing means/reducing barriers to increase capability or opportunity.	Providing medication that makes it difficult to eat fatty foods.

In improvement work, you may just need one or two intervention functions to address the behaviour change. This example provides a detailed list of what is possible around the complex issue of mortality and CVD.

Using the behaviour change wheel as a coach

The behaviour change wheel has been designed to ensure the 'right approach' is taken, based on the team's understanding of the behaviour change that is required. The matching matrix below helps you to select which intervention is/are most evidence-based for a given component of behaviour.

Intervention Function / COM-B component	Education	Persuasion	Incentivisation	Coercion	Training	Restriction	Environmental Restructuring	Modelling	Enablement
Physical capability					●				●
Psychological capability	●				●				●
Physical opportunity					●	●	●		●
Social opportunity						●	●	●	●
Automatic motivation		●	●	●	●		●	●	●
Reflective motivation	●	●	●	●					

Example

A project is aiming to address poor quality referrals to a community service for heart failure. They want referrers to a) only refer patients who are appropriate and b) provide a good quality referral that has all of the information that the team members need to triage.

They understand that the current behaviour is 'clinicians are referring patients with limited information for the reason for referral and basic details on the patient'. The target behaviour is 'clinicians refer patients appropriately to the heart failure team, with appropriate information included in the referral'.

Using COM-B they explore whether referring clinicians have the capability, opportunity, and motivation to do this (see box, right).

In this case the bold bullet points are considered a more common challenge. These both relate to knowledge (psychological capability). Using the behaviour change wheel we have three suitable intervention functions – education, training and enablement. Education may focus on clarifying with people what the service's acceptance criteria is. Training may focus on upskilling people on how to complete a referral on the IT system. Enablement may focus on automating the referral to include data from the referrer's own system, to make the process quicker and easier.

Capability

- **Some clinicians do not know about the cardiac rehab service (which is separate) and so refer to us because they know us**
- **It is clear that some people do not know our acceptance criteria.**

Opportunity

- Some clinicians do not have access to the S1 IT system, meaning they refer using an old Word template, which asks for very limited information
- No mandated fields on the IT system referral
- No penalty or negative consequence for the individual referrer for poor referrals. The consequence ultimately falls on patients who have delayed assessment and on our service due to additional demands.

Motivation

- Anecdotally, some clinicians think that we have more time than them.

Avoiding 'Overly Simplistic Improvement'

Authors
Sidney Beech and **Samantha Machen**

By the end of this section, you will:

- Understand how human factors and cognitive biases affect behaviour
- Recognise the challenges that teams may face in using PDSA, and learn strategies to address them.

Cognitive Biases and Human Factors

This section will focus on human factors and explore some of the reasons our QI interventions don't always stick. Appreciating known complexities in human decision-making helps us relate that complexity into our design of solutions to fix problems. One of the key learning objectives for the Quality Coach programme is to be able to identify when a QI effort may be stalled, or where creative problem-solving methods may be needed. Understanding cognitive biases, or human factors, is an insight into how to design QI ideas which are more likely to affect change.

What is 'human factors'?

Human factors – sometimes referred to as ergonomics – is a scientific discipline that centres around design and human interaction with that design. Human factors is all around us – it might even be relevant right now with the height of your chair at work or the standard door frame sizes. Human factors principles aim to understand how individuals engage with the environment around them.

'Ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to [organise] human well-being and overall system performance. Ergonomists contribute to the design and evaluation of tasks, jobs, products, environments and systems in order to make them compatible with the needs, abilities and limitations of people.'

— Human Factors and Ergonomics Society[116]

Perception
Memory
Reasoning
Motor response

Human–computer interaction
Communication
Teamwork

Human anatomy
Physiology
Anthropometrics
Biomechanics

Participation
Cooperation
Socio-technical systems
Environment

Source: The International Ergonomics Association[117]

116 Human Factors and Ergonomics Society. www.hfes.org/About-HFES/What-is-Human-Factors-and-Ergonomics
117 The International Ergonomics Association. https://iea.cc/about/what-is-ergonomics/

A useful way of understanding the environment in which an individual is working is by considering (1) explicit and (2) implicit or tacit factors.

Explicit environmental factors

Explicit aspects of an environment may be things you can see or feel, such as equipment usability, equipment availability, or lighting. A deeper understanding of a person's environment can help QI leaders appreciate how these external or explicit factors affect a task or process.

Example

You are involved in QI work relating to why blood samples are being mislabelled. You hold an initial meeting with your team and through observing the task, you see that people are collecting blood samples and walking to another ward (a ten minute walk) with multiple blood samples before labelling them, as there is no printer on their ward. When they label them, it is in a dark room and frequently bloods are being mislabelled.

In this example, an understanding of human factors allows you to look at this issue and appreciate the impact of the surroundings on the task. Therefore, when you collate improvement ideas with your QI team, you are closer to the 'true' issue because you have identified the task (labelling blood) and how the environment (location and lighting) affects the individual (staff member).

Implicit environmental factors

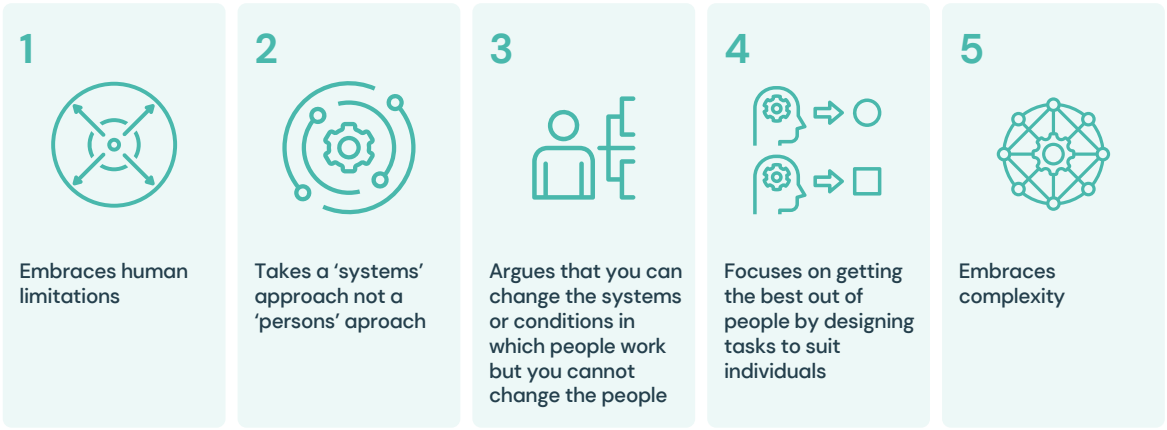
Implicit factors relate to the 'softer' or more tacit aspects of the environment and how they relate to a task or process. These can be related to non-technical skills like communication or leadership. They can also be related to the context of the local area. These harder to define or measure aspects of an environment can be equally impactful on certain tasks or processes. Your role as a Quality Coach is to appreciate the impact they may have on an improvement idea or project.

Example

You are involved in QI work relating to reducing falls in an acute ward setting. You are excited for this project, but the team members don't appear to share your enthusiasm. After the team test some of their change ideas through PDSA, you note their lack of engagement, and you ask to have a debrief with the team. You ask them how they are feeling about the improvement work and if they have any concerns regarding the focus. They tell you they are stressed, understaffed, and generally not interested in the improvement work. They say that the context of the ward is sucking away any enthusiasm they may have had.

In this example, you don't need to be a human factors expert to appreciate why this has impacted your work. Something that is hard to measure, like lack of engagement or apathy, has negatively impacted or even stalled your improvement work. What is important as a coach is identifying this, and appreciating the impact it has on the task/process/activity you are trying to improve. Something invisible, such as apathy to change, can be as detrimental as more obvious and explicit environmental factors.

Key Principles for Human Factors



Adapted from Reason (2003)[118] and Health Education England.[119]

1 **Embraces human limitations**

Embracing human limitations essentially means appreciating that humans will get things wrong, and that this isn't necessarily a bad thing, but an inevitable thing. James Reason, a well-regarded safety science academic, put forward 12 principles of error management to help healthcare workers understand why things go wrong. The first of these 12 principles states 'human error is both universal and inevitable'. As a coach, when you help a team process map something or try to co-produce change ideas, try not to rely on an individual never making a mistake.

2 **Takes a 'systems' approach, not a 'persons' approach, and**

3 **Changes the system, not the individual**

These essentially follow another of Reason's principles: that 'you cannot change the human condition, but you can change the conditions in which humans work'. This is important as a coach, because this builds on your knowledge that humans are fallible to mistakes – and change ideas should focus on system-based changes. An example of person vs system-focused change ideas can be seen below.

118 Aerossurance. James Reason's 12 Principles of Error Management. https://aerossurance.com/safety-management/james-reasons-12-principles-error-management

119 Health Education England. Human factors. www.hee.nhs.uk/our-work/human-factors

4 Focusing change ideas to suit the people doing the task

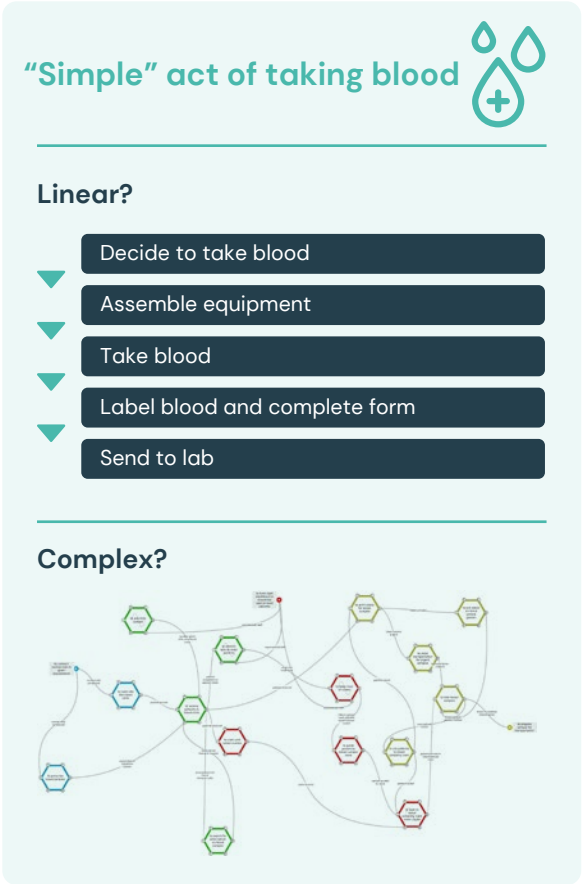
Human factors centres around the idea that the tasks should be as user-friendly as possible. Where signs or information are not clear, it can create confusion for the end user and therefore may result in the wrong outcome.

On the right is an elevator sign which is an example of poor design – do the buttons correlate to the symbol beside them? Or do they correlate to the symbol below/above them? When working with QI teams, co-producing improvement ideas is crucial to avoid design errors.

Source: UX Collective[120]

5 Embraces complexity

Finally, QI coaches are involved in developing and testing change ideas. Embracing complexity is essential when trying to improve processes and outcomes. Within healthcare, nothing is ever simple. When you are coaching teams, it is your role to ensure that they embrace this complexity. This means challenging change ideas to identify the thought or change process behind the ideas. On the right is an example of the 'simple' act of taking blood presented in a linear and simplistic way, and in a complex way. Appreciating the problem or task in the latter way will be more likely to support improvement.



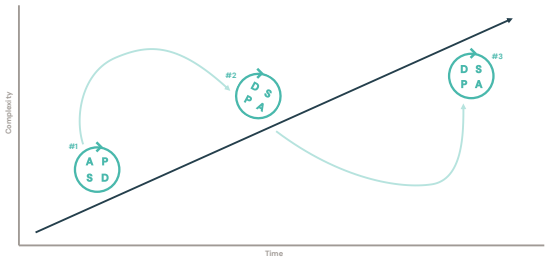
Source: Pickup et al (2017)[121]

120 https://uxdesign.cc/analyzing-elevator-controls-using-nielsen-normans-usability-heuristics-53e385fa8003
121 Pickup, L., Hollnagel, E., Bowie, P. et al. (2017). Blood sampling – Two sides to the story. *Applied Ergonomics*.

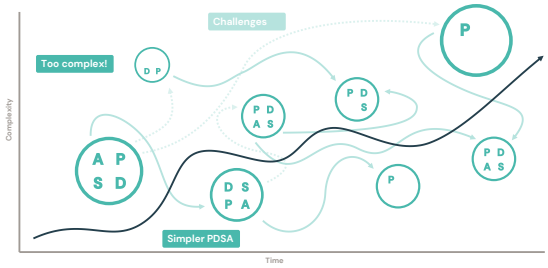
Challenges Teams May Face in Using PDSA

The Plan-Do-Study-Act (PDSA) cycle looks very simple and easy on paper. However, in the real world, teams often face many barriers to testing change through PDSA. Here we outline two main types of barrier – technical barriers and adaptive barriers.

What we think PDSA will be like...



What PDSA is like in reality...



Inspired by: NIHR CLAHRC [122]

Technical Barriers to Testing Through PDSA

Technical barriers to PDSA are less about the human aspect of change and more on the use of PDSA itself as a tool for learning and improvement. Below are seven common examples of technical barriers to testing through PDSA and strategies the teams and you may use to overcome these.

Barrier	Description	Strategies to address this
Too many PDSAs at once	Teams can sometimes want to do too much, too fast. When this occurs, they can often lose sight of which change ideas are having a positive impact, which are having a negative impact and which are having no impact at all. They can also forget to follow the PDSA process through, meaning decisions are not always grounded in evidence and learning.	• Remind teams of the purpose of PDSA – to learn, not just to improve • Encourage them to use technology to support good planning and documentation of PDSA – with a clear 'owner' for each PDSA • When a lot of change is happening all at once, the team should come together often to discuss progress, share learning, get feedback and discuss next steps • Ask the team – what is the urgency? Can some things wait?
No or poor documentation	Documentation is key to learning. When this is not done, or not done well, then it can make the process of PDSA much harder.	• When meeting teams, encourage them to document in the meeting itself • Encourage teams to use visual management to update others on the progress of their work – a simple whiteboard can be powerful in documenting QI work.

122 NIHR CLAHRC. QI4U. www.qi4u.org

Barrier	Description	Strategies to address this
Doing PDSA when it isn't needed	Not all change needs to be tested through PDSA. Those inexperienced in QI may not appreciate this and so spend time and energy testing a change that is known to work.	• When developing driver diagrams, ask the team to flag which changes need PDSA and which don't • Ask the team "what will you learn by testing this?" – if this answer is "nothing" then tell them to just implement the change instead.
Planning paralysis	Some people have a natural affinity to robust planning. PDSA by nature should be rapid.	• If teams are spending a lot of time planning, ask them "what is the harm of testing this on a very small scale today/ tomorrow?" or "what is stopping you from testing this right now?" • Remind them of the purpose of PDSA – rapid, small, incremental cycles to test change and learn what will lead to improvement.
Skipping a step	It can be exciting to test change. Sometimes in the excitement and rush to make things better, teams can forget to stop at each step of PDSA – particularly the planning and studying of the change. Without following PDSA in a systematic way, we can lose the key insights needed to bring about sustainable improvements.	• Use a PDSA template to help teams to go through each step in a purposeful, systematic way • Highlight the risks of skipping a step.
Testing ideas that are difficult to sustain	Some ideas require a lot of continuous energy and effort to sustain. Teams should focus on the ideas that last without requiring a significant investment in resources.	• Ask the team how they plan to sustain the change – who is responsible for this? • Use tools such as the Hierarchy of Intervention Effectiveness to encourage teams to think about system-focused changes.
Changes that don't address the actual problem	It can be easy to go down a rabbit hole and become side-tracked when doing improvement work. Sometimes teams can develop change ideas that are entirely unrelated to their SMART aim.	• Use tools such as fishbone diagrams, pareto charts and 5 whys to support teams to understand the relationship between cause-and-effect for their given problem • Remind teams of their SMART aim and use the driver diagram to have meaningful discussion about their theory of change • Ask the team to explain how the intervention addresses the problem, and how they are using data to support and justify their approach.

This list of strategies to address challenges is not exhaustive and may not work with every team. Consider your own coaching and leadership style, and build on the table above.

Adaptive Barriers to Testing Through PDSA

Adaptive barriers look at the human aspect and relationship to change and PDSA. Here we've outlined six common adaptive barriers to testing ideas through PDSA cycles.

Barrier	Description	Strategies to address this
Fear of failure	Failure can be seen as a 'dirty' word – something that isn't tolerated or accepted in the workplace. In improvement, failure is completely normal, expected and welcomed. By failing, we learn a great deal about the system, process, people, and changes which are crucial for embedding sustainable change.	• Normalise failure as a coach – let teams know that they should expect it and welcome it • Share your own experiences of failure and how that helped you in your improvement work • Encourage the small, scalable concept of PDSA – if the team are testing an idea for one day or on one patient, the effort is often less – making the failure more palatable.
Making the mental leap from 'command and control' to quality improvement	Change in healthcare has historically been led from the top or in reaction to an event. This approach is often quick and doesn't rely on an improvement methodology or measurement. At times the solutions put in place do not bring about sustainable improvements. QI is different and requires more structure and a systematic approach. It may take longer and require more work.	• Emphasise the importance of measurement to inform improvement. Ask teams "how will you know that this change will lead to improvement?" • Ask teams what their prediction and/or hypothesis is that they are testing through PDSA. What have they learned so far? • Encourage the team to come together frequently to discuss progress and get feedback • Ask the team if a PDSA template with prompt questions would help them to take a more systematic approach.
Fear of the unknown	Leading improvement work for the first time can be daunting. QI can often feel like a new world, with a lot to learn and understand. With new territory comes a lot of uncertainty and questions. The inherent concept of PDSA being that we don't know what will work can also make people anxious or worried.	• Reassure the team when they do something well, even when these are small tasks • Let them know how you can support them, perhaps taking a more active role whilst they get familiar and more comfortable with the process • Encourage others, such as colleagues and leaders to give the team positive feedback to help reinforce their good work • Encourage the team to collaborate – so it feels less like them leading the work in isolation and more like a shared piece of work with everyone.

Barrier	Description	Strategies to address this
Feeling overwhelmed	Leading improvement work can feel overwhelming. It can feel like there is a lot that needs to be done at the same time or that there is a loss control over the QI work taking place.	• Remind the team to start small – it's OK to test one idea at a time on a very small scale at first • Use some form of documentation to keep track of work, including who is responsible for what. This is particularly important when using PDSA ramps/series • Remind the team to delegate tasks (even small ones) • Not all change needs to happen at once. What can be pushed back to reduce the burden of work? • Encourage the team to take breaks from the improvement work, if needed. Often things can wait.
No agency for change	Agency is the power and courage to make a change. Power focuses on the ability to act with purpose. Courage focuses on the emotional resources to choose to act in the face of difficulty or uncertainty. Without agency, improvements can fail to get off the ground, or can stall.	• Encourage the Sponsor of the improvement work, as well as other leaders, to invest time in the work. They could meet with the team more often at the start, provide reassurance, and build confidence in the team and ideas • Use the concept of small-scale tests of change to build confidence in the team • Ask the team to explore the context of the improvement work to better understand factors that help and hinder achieving the intended outcome.
Over-confidence (know all the answers)	Contrary to many of the above adaptive challenges to PDSA, some people may approach PDSA with a lot of confidence. Too much confidence may mean that they forget the principles of PDSA, which requires some humility and insight. High confidence can be perceived as arrogance or cockiness, which can damage working relationships and may lead to resistance.	• Ask the individual/team to consider what could go wrong when testing through PDSA • Use your experience and the experience of others to discuss the reality of PDSA and the challenges it brings • Encourage the team to use predictions to use as a tool for reflection • Ask the team to collect feedback on their initiative – do people like the idea? How could it be improved? • Encourage the Sponsor of the improvement work to keep the team in check and support a reflective approach to improvement.

This list of strategies to address challenges is not exhaustive and may not work with every team. Consider your own coaching and leadership style and build on the table above.

Designing Sustainable Change

Author
Sidney Beech

By the end of this section, you will:

- Understand why sustainability in change is challenging, but crucial
- Learn how to adopt strategies that support the design of sustainable change.

Why Is Sustaining QI So Hard?

We know from our own experiences and from the literature that many QI projects are not sustained. There are many factors that may influence this, including the local and organisational context, misaligned priorities, loss of interest, wrong motivation for doing QI work, as well as the poor design of QI interventions.

The literature shows only *around one third of QI work is sustained and achieves the desired results*.[123,124,125] This incredibly small proportion clearly indicates that more needs to be done to support the sustainability of change.

Strategies for Designing Sustainable Change

Sustainability shouldn't be something you think about at the end of an improvement effort. Sustainability of change should be considered right from the offset, and particularly during the design of interventions and testing of change. As a coach, you should support teams to design sustainable change.

We cover four different approaches you can use to support this:

1. Thinking about the role of human error in QI.
2. Designing system-focused solutions by using the Hierarchy of Intervention Effectiveness.
3. Thinking about how you might prevent mistakes.
4. Considering the impact on workload when designing change ideas.

We expand on each of these on the following pages.

123 Ivers, N. M., Sales, A., Colquhoun, H., Michie, S., Foy, R., Francis, J. J., and Grimshaw, J. M. (2014). No more 'business as usual' with audit and feedback interventions: towards an agenda for a reinvigorated intervention. *Implementation Science*.

124 Beer, M. and Nohria, N. (2000). Cracking the code of change. *Harvard Business Review*.

125 Knudsen, S. V., Laursen, H. V., Johnsen, S. P., Bartels, P. D., Ehlers, L. H., and Mainz, J. (2019). Can quality improvement improve the quality of care? A systematic review of reported effects and methodological rigor in plan-do-study-act projects. *BMC Health Services Research*.

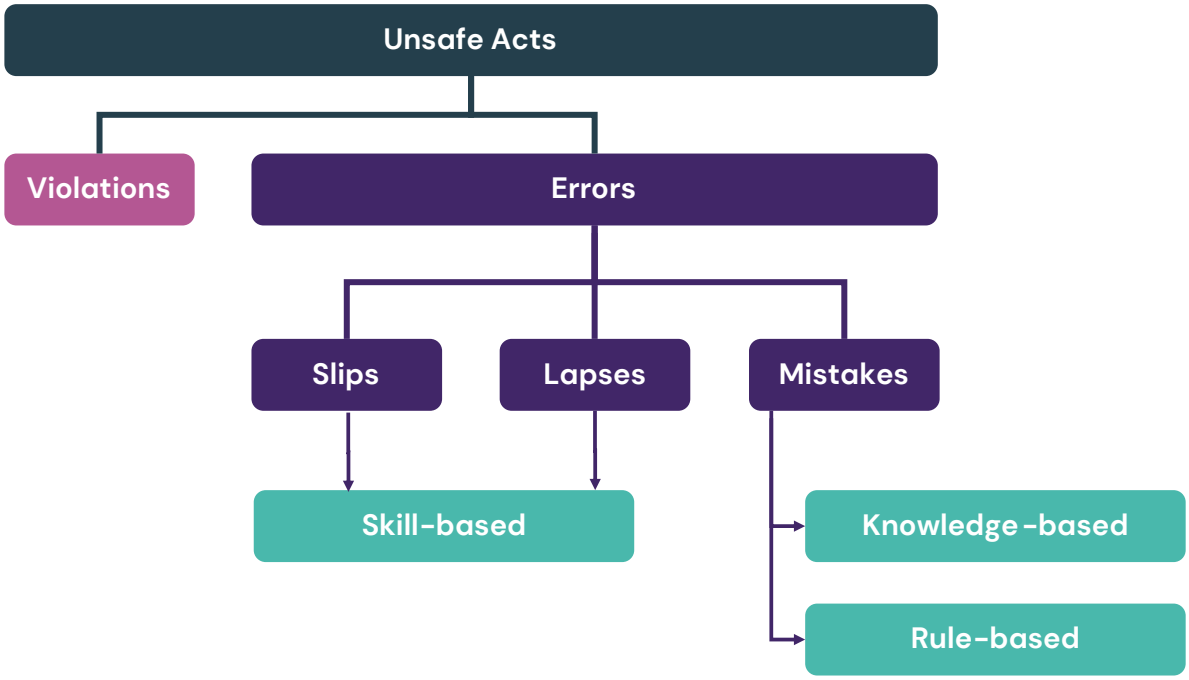
STRATEGY 1

The Role of Human Error

We know from the field of human factors that many adverse events can be linked in some way to human error, and the interaction of humans with their environment and work setting. Understanding human error can be useful in improvement efforts, particularly where human factors play a key role in the context or intended solutions. Using this knowledge can thus help to embed sustainable, impactful change grounded in an understanding of cause-and-effect.

Categories of human error

Research into human error by Rasmussen and Reason[126] outlines three key categories of error: skill-based, knowledge-based, and rule-based.



Skill-based errors

Skill-based errors occur during highly routine activities, when attention is diverted from a task, either by thoughts or external factors. When they happen, the individual often has the right knowledge, skills, and experience to do the task properly, but they either forget to do it (a lapse) or are distracted or inattentive (a slip). As tasks become more routine, they can be performed with less conscious attention – the more familiar a task, the easier it is for the mind to wander.

Rule-based errors

Some tasks require conscious decision-making, particularly if they are less familiar or complex. We often rely on rules to help us work through these tasks. These rules may be explicit (taught or communicated, e.g. through a procedural document or on evidence-based care) or implicit, or based on a person's own experiences. Regardless of the source, two main reasons for rule-based errors are either a) the misapplication of a good rule or b) the application of a bad rule.

126 Rasmussen, J. (1983). Skills, rules, and knowledge; signals, signs, and symbols, and other distinctions in human performance models. *IEEE Transactions on Systems, Man, and Cybernetics*.

Knowledge-based errors

Knowledge-based errors occur when people face unique or unfamiliar situations. Since the decision is not automatic and reflexive (skill-based), and there are no known rules for the situation (rule-based), more mental energy and time is needed to make a knowledge-based decision. One must think through the facts and possible consequences and create a plan based on one's knowledge and experience. In these cases, insufficient knowledge about how to perform a task can result in the development of a solution that is incorrectly expected to work.

Using this as a Quality Coach

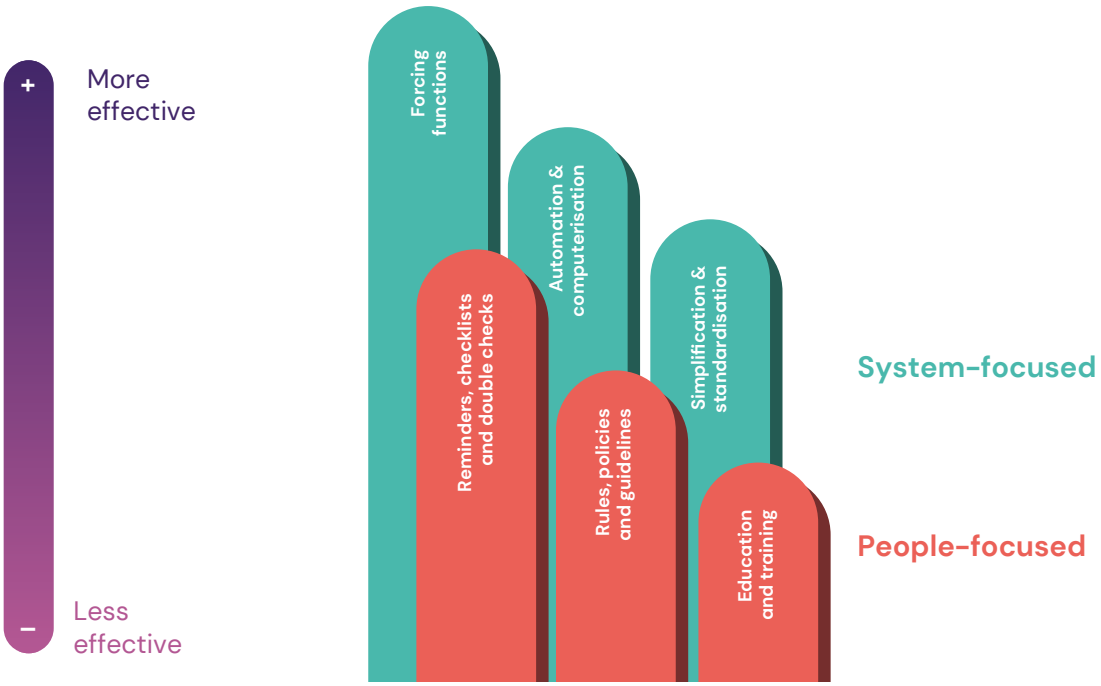
In improvement, you can apply this framework as a diagnostic tool to understand the source of error that is occurring in a particular context. By understanding the causal link for error, you can introduce changes that are best suited to address the type of error. In the table below we outline some potential solutions to address skill-based, rule-based and knowledge-based errors (not exhaustive). In addition, the sections on the Hierarchy of Intervention Effectiveness and mistake-proofing are useful in conjunction with this subject.

Potential solutions	Examples
Skill-based	
Detection of a slip or lapse	• A double-check by a colleague when administering a medicine • Spell check on an IT system to prevent spelling mistakes.
Make the 'right' thing easier to do than the 'wrong' thing	• A mandatory field on an e-prescribing system for the patient's weight to ensure something is recorded.
Automating the part of the process that is prone to error	• Auto-saving a document on a shared drive to ensure work isn't lost. • Computerised dispensing systems that select the right medicine and the right dose for patients as part of the medication round to prevent medication errors.
Removing error-prone steps in a process	• Treadmill safety keys that must be attached to clothing that break the power circuit if someone goes too far back. This stops people from falling as they would not be able to press the stop button themselves.
Rule-based	
Writing a standard procedure for a process (good rule)	Writing a standard rule for how to triage inbound work for a team (set questions and set documentation).
Re-designing a process and/or re-writing a policy (bad rule)	Updating a standard operating procedure in line with new evidence e.g. for management of asthma patients including the use of dry powder-based inhalers (instead of aerosol-based inhalers).
Training	Inducting new staff on standard ways of working in a service.
Vigilance	Physically pointing as you conduct an inspection to ensure you are focusing on the right objects.
Using signs, warning, and labels to flag up the procedure	Adding a 'how-to' guide next to an instrument so people know how to use it.
Knowledge-based	
Training	Shadowing for staff on more advanced topics e.g. how to complete an Education, Health and Care plan for a child.
Mentoring	1:1 meetings with an experienced practitioner to support development in management skills.

STRATEGY 2

Hierarchy of Intervention Effectiveness

Some NHS organisations use the Hierarchy of Intervention Effectiveness to guide the selection and design of sustainable change ideas. The hierarchy (shown below) is broken down into two key sections: people-focused change (bottom half) and system-focused change (top half).



Source: Horsham (1999)[127]

People-focused changes put the onus on individuals to manage and operate a change. For example, introducing a policy on risk assessment for venous thromboembolism (VTE) and asking staff to follow the policy. A simple way of explaining people-focused change is 'telling or showing someone how to do something'.

System-focused interventions change the process or system itself, in order to bring about change. Therefore, the onus is on the system to manage and operate a change. A simple way of explaining system-focused change is 'helping or guiding someone to do something'.

This does not mean people-focused changes are ineffective or unhelpful. Education and training (alongside other people-focused changes) have a key role in healthcare delivery, but you should consider complementing these with other methods. If this is not feasible, at the very least you must ensure sustainability, e.g. with a training plan, given healthcare has a dynamic workforce.

127Horsham, P. A. (1999). The Hierarchy of Intervention Effectiveness. *Institute for Safe Medication Practices.*

STRATEGY 3

Mistake Proofing

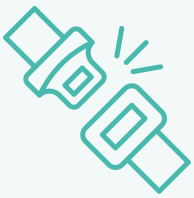
Mistake proofing aims to eliminate defects by preventing, correcting, or drawing attention to human errors before they occur or as they occur. Defects occur when mistakes are allowed to reach the customer.

The application of mistake proofing can be found everywhere in daily life. When designing a new product, designers will consider the possible safety issues that may arise, to make their product as safe to customers as possible. Mistake proofing aims to make it impossible for errors to occur, or to be passed onto the next step.

Examples of mistake proofing

Washing machines do not start a cycle until the door is closed and locked

Lifts are fitted with sensors to prevent the doors closing on a person



Cars have sensors that will cause a beeping noise when a passenger is not wearing a seatbelt

Sinks are fitted with overflow outlets to prevent flooding

Mistake proofing should be used when the consequences of a defect in a process are high-risk or costly, or when a minor defect may lead to significant issues later in the process. The four steps of mistake proofing are described below.

	Step	Description
1	**Select a process that you want to 'mistake proof' and identify any defects**	Select the process you wish to mistake-proof and analyse where the process may fail. You may use process mapping, data analysis, pareto analysis or brainstorming for this.
2	**Understand the source(s) of any defects**	For each possible failure mode, evaluate why this happens. Use tools such as fishbone diagrams, 5 whys and brainstorming for this.
3	**Design and test a mistake-proofing technique**	For each defect, think of how you can prevent the mistake from happening. The table on the next page outlines six techniques for mistake proofing. Incorporate the mistake-proofing technique into the process and test it to evaluate success.
4	**Scale up and maintain**	If successful, implement it fully, scale up and monitor the failure mode.

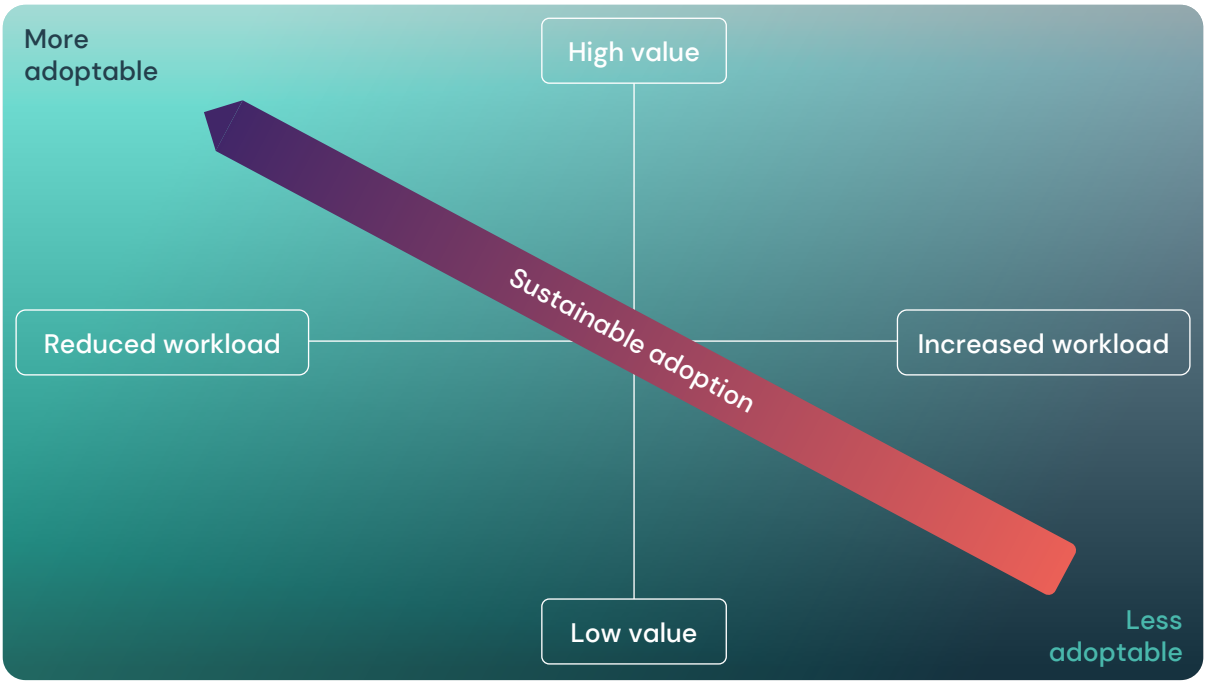
Similar to the Hierarchy of Intervention Effectiveness, there is a 'ranking' for the different types of mistake proofing we use in QI. These are shown in the table below (the higher, the better).

	Name	Description	Example
MOST EFFECTIVE	**Elimination**	Removing the step that causes the error	• Automatic data entry from an electronic device onto patient IT system (e.g. BMI machine sends report to system without manual entry) • Cars automatically braking when an obstacle or threat is detected.
	Replacement	Substituting the step with a defect-free step	• An automatic cash/coin dispenser for till transactions instead of manual (human) transactions to prevent customers getting short-changed and counterfeits • Car lights automatically coming on when they detect it is dark/raining.
	Prevention	Changing the process so the mistake is no longer possible	• Changing the diesel pump size/shape so that is larger/ different from the petrol pump, to prevent mis-fuelling • Introducing safe connectors that make it impossible to inject medicines designed for intravenous use into the spine.
	Facilitation	Make the correct action easier and simpler than the mistake	• Colour coded connectors for an IT server to ensure wires are correctly connected • USB drives shaped to prevent incorrect insertion to a PC
	Detection	Making mistakes more obvious for immediate correction (if the mistake cannot be eliminated)	• Computer alert if all mandatory fields not completed or not completed appropriately • Alarm if car lights are left on • Smoke detectors.
LEAST EFFECTIVE	**Mitigation**	Minimise the effect of the mistake (if the mistake cannot be eliminated)	• Eraser on the top of a pencil • Using PPE.

STRATEGY 4

Highly Adoptable Improvement Model

One common mistake we make in QI is failing to consider the impact change has on staff. This can be a huge barrier to success and sustainable change. Initiatives that increase workload and have low perceived value are less likely to be adopted. The highly adoptable improvement model was developed by the IHI on the basis of existing QI knowledge and theory to reflect this. According to this model, change initiatives that don't add to workload and have high perceived value are most likely to be adopted, cause less workplace burnout, and achieve their intended outcomes.[128] This is shown in the graphic below.



This helps you to gauge through the employee's eyes how much the change is 'worth it' and therefore likely to stick. Changes that are high-value and reduce workload are the most adoptable, moving gradually down to the least adoptable (increased workload and low value).

As a coach, you should factor in the model when working with teams, sharing the importance of factoring in workload and anticipating resistance or poor uptake accordingly.

128 Hayes, C. W., and Goldmann, D. (2018). Highly Adoptable Improvement: A Practical Model and Toolkit to Address Adoptability and Sustainability of Quality Improvement Initiatives. *The Joint Commission Journal on Quality and Patient Safety*.

Engage those making the change

For QI initiatives to have perceived value, we need to work closely with those who have to adopt the change. We must be clear about the intended benefits for them, their patients, or their work environment. By co-designing, we are more likely to develop an intervention that implementation teams see as worth their time and effort.

Alignment

Change initiatives aligned with an organisation's goals, values, and objectives, and that are planned to inform end-users and avoid conflicts between projects or priorities, are more likely to increase perceived value and achieve sustained adoption.

Understand the problem

Ensure you spend the appropriate amount of time to understand the problem and current situation. Skip this and you may end up investing your energy into something that won't work, fixing something that you don't need to, tackling the wrong problem etc.

Complexity

Interventions that are simple and easy to use are more likely to be sustainably implemented and reliably performed.

System change

The Hierarchy of Intervention Effectiveness outlines the opportunity for success for improvement work. Changes focused on the system (forcing functions, automation, simplification/standardisation) are more likely to 'stick' than people-focused change. People-focused change puts the onus on the individual to operate differently (via training, enforcing a policy/guideline or using checklists, guidelines etc.). Consider putting the onus on the system vs the people.

Workload

Back to the main point: interventions that require less effort or improve the current workflow are more likely to be sustainably adopted and reliably performed.

Reflection: Designing Sustainable Change

Questions to ask yourself as a coach:

- What techniques could I use to coach teams/individuals in the design of sustainable change?
- Am I comfortable explaining and coaching these methods to a layperson?
- What are the limitations to these techniques?
- Do I know who to speak to locally for advice on this?

Thinking Creatively

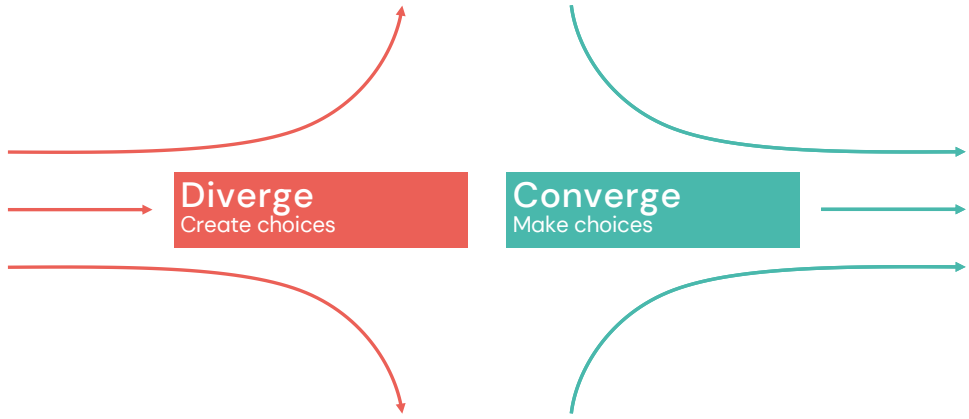
Authors
Sidney Beech and **Hannah Pearson**

By the end of this section, you will:

- Understand the difference between divergent and convergent thinking
- Be able to use a range of tools to support creative thinking and prioritisation.

Creativity and innovation are important skillsets for any improver. Improvers should be encouraged to think 'outside of the box' when answering the question *what change can we make that will result in an improvement?*

As a coach you will often support teams to explore possibilities and potential solutions, grounded in their understanding of the current situation. It can be tempting for teams to jump to the customary 'solutions' to their given problem – interventions such as training, posters and emails. Often this is not enough – especially for sustainable outcomes. You should help them to use divergent and convergent thinking when selecting change ideas.



Divergent thinking

Divergent thinking aims to generate new ideas or solutions. It is often used in situations where there are many possible answers, such as in creative brainstorming sessions. Divergent thinking typically involves looking at a problem from different angles and considering all possibilities before choosing the best solutions. Divergent thinking stresses quantity of thought, imagination, long lists, and considering many different ways.

Tools for divergent thinking covered in this handbook are:

- IHI change concepts
- Brand thinking
- Reverse brainstorming
- Fresh eyes

Convergent thinking

Convergent thinking aims to select the 'best' solutions from your large list of ideas generated in the divergent stage. In QI, this often leads to testing ideas using PDSA to learn about and evaluate their suitability. Convergence stresses quality of thought, good judgment, shortlists, and a few selected ways.

Tools for convergent thinking covered in this handbook are:

- Affinity diagrams
- Prioritisation matrix
- Pairwise comparison

Divergent thinking: IHI Change Concepts

'A change concept is a general notion or approach to change that has been found to be useful in developing specific ideas for improvement.'[129] It was developed by Associates in Process Improvement by the Institute for Healthcare Improvement.[130] They drew on their experience and generated a list of 72 concepts which can be used to inspire change ideas for QI work. The 72 concepts are grouped into nine categories as detailed below.

Eliminate waste	What activities or resources don't provide value to your patients or customers?
Improve workflow	How can you change the workflow so that the process is less reactive and more planned?
Optimise inventory	How can you reduce costs associated with the maintenance of inventory?
Change the work environment	What would make the environment better able to support improvement?
Enhance the producer/ customer relationship	How can you better understand and respond to the customers' needs?
Manage time	How can you reduce the time to develop new products, waiting times for services, lead times for orders and deliveries, and cycle times for all functions in the organisation?
Manage variation	How can you reduce the frequency of poor results?
Design systems to avoid mistakes	How can you reduce the probability of making an error for a given opportunity?
Focus on the product or service	What improvements can you make to the design of the product or service?

129 IHI. Change Concepts Worksheet. www.ihi.org/resources/Pages/Tools/Quality-Improvement-Project-Change-Concepts-Worksheet.aspx?PostAuthRed=/resources/_layouts/download.aspx?SourceURL=/resources/Knowledge%20Center%20Assets/Tools%20-%20QualityImprovementProjectChangeConceptsWorkshe

130 Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., and Provost, L. P. (2009). *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd ed.). Jossey-Bass.

Some of these categories or change concepts may be more relevant to some work than others. They can be used as prompts with teams when generating ideas. They may be particularly useful to use when people are struggling to come up with new or different ideas. You may wish to identify a few change concepts and brainstorm change ideas linked to them with the team, then use QI methods to test and decide which ones to adopt. The 72 concepts are listed below by category.

Useful resource:

Science of Improvement: Selecting Changes from the Institute of Healthcare Improvement.
www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementSelectingChanges.aspx

Eliminate waste	1	Eliminate things that are not used
	2	Eliminate multiple entries
	3	Reduce or eliminate overkill
	4	Reduce controls on the system
	5	Recycle or reuse
	6	Use substitution
	7	Reduce classifications
	8	Remove intermediaries
	9	Match the amount to the need
	10	Use sampling
	11	Change targets or set points
Improve workflow	12	Synchronise
	13	Schedule into multiple processes
	14	Minimise handoffs
	15	Move steps in the process close together
	16	Find and remove bottlenecks
	17	Use automation
	18	Smooth workflow
	19	Do tasks in parallel
	20	Consider people as in the same system
	21	Use multiple processing units
	22	Adjust to peak demand
Optimise inventory	23	Match inventory to predicted demand
	24	Use pull systems
	25	Reduce choice of features
	26	Reduce multiple brands of the same item
Change the work environment	27	Give people access to information
	28	Use proper measurements
	29	Take care of basics
	30	Reduce demotivating aspects of the pay system
	31	Conduct training
	32	Implement cross training
	33	Invest more resources in improvement
	34	Focus on core process and purpose
	35	Share risks
	36	Emphasise natural and logical consequences
	37	Develop alliances and cooperative relationships

Enhance the producer/ customer relationship	38 Listen to customers 39 Coach the customer to use a product/service 40 Focus on the outcome to a customer 41 Use a coordinator 42 Reach agreement on expectations 43 Outsource for 'free' 44 Optimize level of inspection 45 Work with suppliers
Manage time	46 Reduce set-up or start-up time 47 Set up timing to use discounts 48 Optimize maintenance 49 Extend specialists' time 50 Reduce wait time
Manage variation	51 Standardisation (create a formal process) 52 Stop tampering 53 Develop operation definitions 54 Improve predictions 55 Develop contingency plans 56 Sort product into grades 57 Desensitize 58 Exploit variation
Design systems to avoid mistakes	59 Use reminders 60 Use differentiation 61 Use constraints 62 Use affordances
Focus on the product or service	63 Mass customize 64 Offer product/service anytime 65 Offer product/service anyplace 66 Emphasise intangibles 67 Influence or take advantage of fashion trends 68 Reduce the number of components 69 Disguise defects or problems 70 Differentiate product using quality dimensions 71 Change the order of process steps 72 Manage uncertainty — not tasks

Divergent thinking: Brand thinking

Brand thinking involves a fun activity in which groups think of approaching a problem in a new way. You can use this when teams are struggling to come up with ideas to solve a problem, or when they have exhausted all their ideas to test. It involves thinking of other brands or organisations and asking how might they solve a problem. This tool encourages creative thinking and supports teams to harness new ideas.

Just like other forms of brainstorming, this method encourages people to think outside the box and be creative when coming up with solutions. Some people may initially consider this trivial and may be hesitant to participate – you may hear phrases like "but these brands have endless supplies of money". But it's important to sell the goal of the tool, which is to allow the team to think differently and come up with solutions that they otherwise might not have thought of. People may come up with radical or unachievable suggestions, but when talking through the solutions it's important to remember that some of those more radical ideas may have potential to be pared down to really good ideas that can be implemented. This is a tool which pushes groups to think more freely, but to still identify tangible ideas.

When working with a team to undertake brand thinking, you can follow these guidelines developed by the Q Community:[131]

1. Clearly define the problem or task to tackle. (2 mins)
2. Choose some innovative brands and gather their logos. You may wish to add these to an online whiteboard, show them on a screen or print them off in advance to remind people which brands to focus on. If working with a larger group, you may find it easier to have a few smaller groups all working on different brands. Or you may ask the team to select one brand to start with and then move onto another afterwards. Some examples of popular brands which you may like to use: Apple, McDonalds, Amazon, IKEA, M&S, Google.
3. Ask the group to individually think about, and note down, five to ten words or phrases to describe the brand or organisation. An example for IKEA might be 'encourages a do-it-yourself attitude'. An example for Amazon might be 'easy customer feedback loops'. (3 mins)
4. Ask the group to share and collate their notes to ensure views on the brand's identity are aligned. (2 mins)
5. Now get the groups to think about how this brand might approach the problem. What would they do differently? What innovative ideas might they come up with? (5–10 mins)
6. Write down or draw your ideas. (5–15 mins)
7. Reflect on which of these new ideas, or aspects thereof, might be useful to take forward. (3-10 mins)

131 Q Community (2020). Creative approaches to problem solving. https://q.health.org.uk/resource/creative-approaches-to-problem-solving/

Divergent thinking: Reverse Brainstorming

When a team is faced with a challenging project, they can become very negative. When this happens, it can be difficult to generate improvement ideas. Teams may seem to be stuck in a negative state of mind, saying things like "this is so bad", or "nothing we can do will fix it". But there are often small changes that can be made that are within a team's control, and that will make a difference. Reverse brainstorming[132] is a tool to help teams solve problems using brainstorming and reversal techniques. When it's hard to think of positives, reverse brainstorming can help – by asking people to think of something which would cause or worsen a problem, and then flipping that on its head to generate a solution.

To carry out a reverse brainstorming session with a team, follow the steps below:

1. Instead of generating ideas to solve the challenge, you have five minutes to generate as many ideas as possible to make it worse. This often works well individually but could also be carried out in small groups.

   Think: how can you obstruct someone from solving this problem?

   Write these ideas on sticky notes. (5 mins)

2. Reflect on all of your bad ideas. You now have five minutes to flip them around. By doing so, your bad ideas will become solutions to the problem. You can bring the group together to do this, or do it individually.

   Note the solutions on sticky notes, using a different colour from Step 1. (5 mins)

This will leave you with a list of solutions. If team members did this individually, bring the group together to go through their potential solutions to the problem. You can then use a convergent tool to work out which ideas to take forward, or to theme similar ideas together.

This is a relatively easy creative thinking exercise to carry out, as it requires little to no resource. It can either be carried out on an online whiteboard or using sticky notes in person, and it can take as little as 15 minutes to generate ideas. If using an online whiteboard you may wish to create a space with empty sticky notes for team members to populate.

Example:

Example problem: Too many patients coming to clinic

Ideas to make the problem worse	Initial ideas flipped to form solutions
Invite more patients.	Reduce number of appointments offered.
Reduce number of chairs.	Add additional seating in corridor.
Tell everyone the same appointment time so everyone arrives together.	Stipulate on letter that patients should arrive no more than ten minutes before their appointment time.
Have an open invitation.	Tell patients to call clinic and leave voicemail if they have issues – someone will get back to them within 24 hours.
Encourage walk-ins.	Put a sign up ensuring only those with an appointment attend.

132 MindTools. Reverse Brainstorming. www.mindtools.com/a32qxsh/reverse-brainstorming

Divergent thinking: Fresh Eyes

Everybody's life experiences and perspectives shape the way that they interpret situations. This is often a positive, but it can sometimes stifle teams in improvement work. It's important that improvement teams are made up of people with different backgrounds and roles, so that solutions developed are based on a range of experiences, and are more likely to work for everybody. But even a diverse group of people can still benefit from outside perspectives. A 'fresh pair of eyes' brings a new perspective to a situation, which can be particularly helpful when all options seem to have been exhausted.

The fresh eyes[133] tool supports this by asking the group to think from another person's or group's perspective. Considering improvement from an alternative perspective can encourage creative thinking.

This is a great tool to use when trying to revive a stalled effort as it can support teams to generate a wider range of ideas.

Using this tool with a team is quite simple. Follow the steps below:

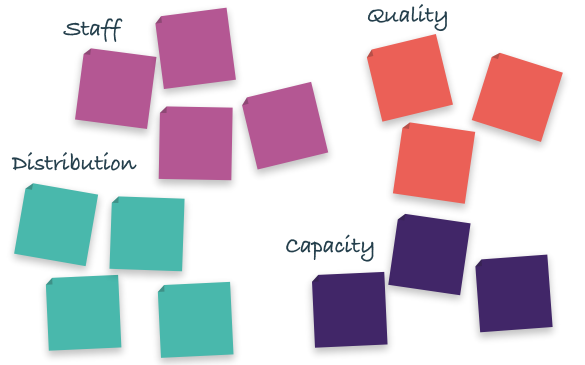
1. Define the problem or issue.
2. Identify some alternative personas. You can be as creative or specific as you like. You may wish to assume a character such as 'Harry Potter', or a wider group of people such as witches and wizards. The level of creativity can be determined by the group. Other ideas for personas: politicians, parents, comedians, children, retired people, teachers, patients.
3. Ask the group to view the problem or issue as if they were that person. They should consider answers to questions such as:
   - What would be important to them here?
   - What aspect of the topic would they focus on?
   - What ideas and approaches might they suggest?
4. You could ask the group to do this from a few different perspectives, or if it's a larger group, break them into smaller groups and ask them to each cover one or two perspectives.
5. Ask the group to reflect on the ideas they have come up with.

133 NHS England and NHS Improvement (2022). Fresh eyes. www.england.nhs.uk/wp-content/uploads/2022/01/qsir-fresh-eyes.pdf

Convergent thinking: Affinity Diagrams

What are affinity diagrams?

Affinity diagrams (also known as the KJ method) are used to review and analyse ideas generated from an idea generation session. The process involves grouping and analysing ideas based on themes or similarities. They are particularly helpful when you have a large number of ideas (30+), or when ideas and/or information about a problem are not well organised.



Why are we not able to meet our delivery deadlines?

Staff	Capacity	Distribution	Quality
Idea 1	Idea 1	Idea 1	Idea 1
Idea 2	Idea 2	Idea 2	Idea 2
Idea 3	Idea 3	Idea 3	Idea 3
Idea 4		Idea 4	

How to create an affinity diagram

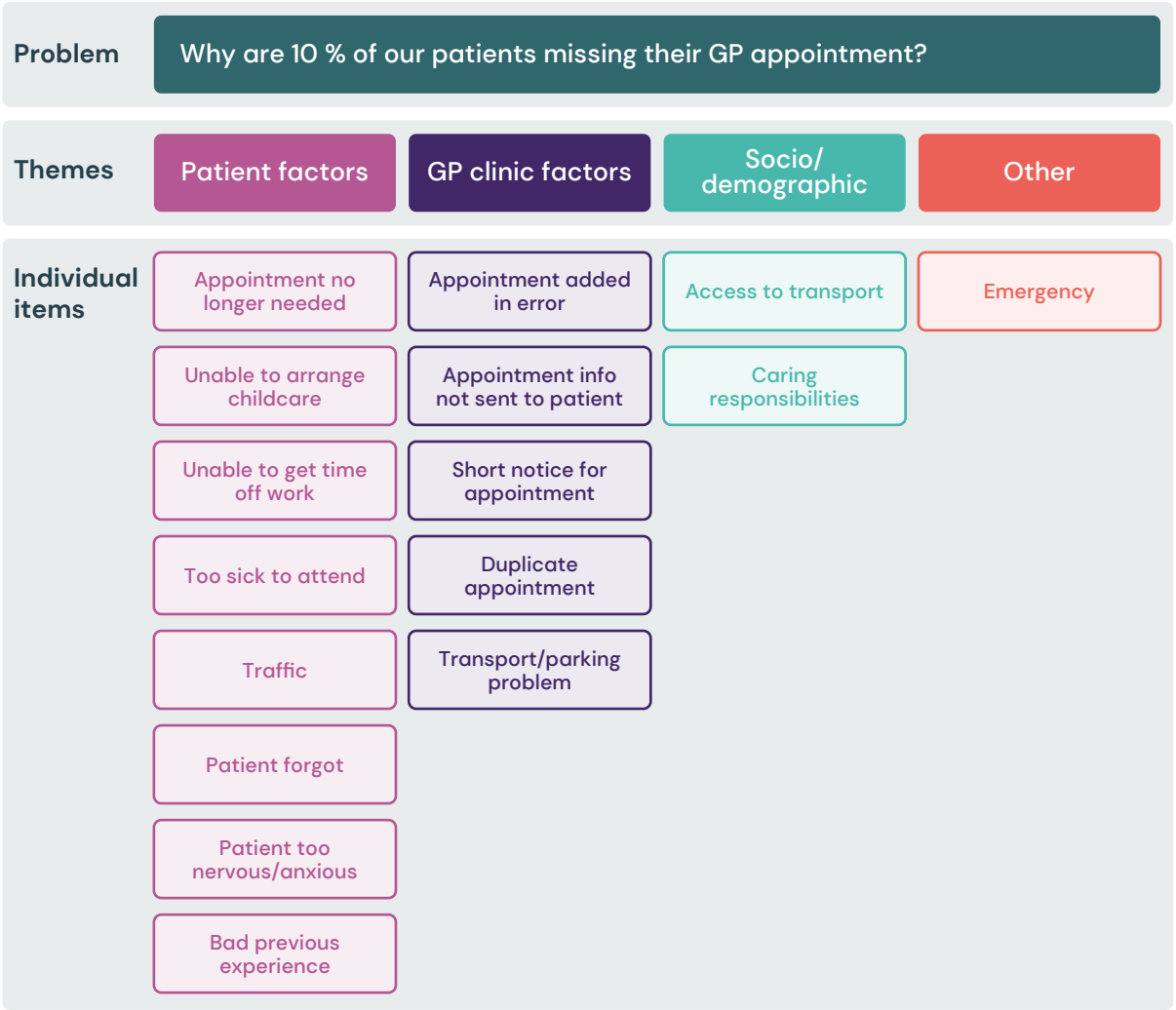
Source: NHS Improvement (2011)[134]

1. **Lay out ideas**
   If ideas aren't already laid out, put each individual idea onto a sticky note, without changing the wording. Stick them to a wall or whiteboard, or randomly place them on a table-top.
2. **Group ideas into themes**
   Invite the team to begin grouping notes into different themes or using similarities. This grouping process is done as a team in complete silence. Notes can be changed from one grouping to another if required.
3. **Name themes**
   When the grouping is complete, create a 'header' label for each grouping. Ask the team to make suggestions, working from one grouping to another.
4. **Add sub-headers**
   You may need to introduce sub-headers if you have a lot of different ideas within your groupings. If you do, your newer, smaller groups of ideas will be your primary headers, and the existing, wider groupings will be your secondary headers.
5. **Draw the diagram**
   Collate this information into a diagram and discuss the results. The diagram will frame the problem at the top, followed by the key themes below, with secondary themes or individual ideas below that.
6. **Prioritise ideas**
   When you have completed the diagram, you should consider prioritising based on the themes identified. Are some issues more pressing than others? You may also use it to identify 'quick wins' that can be implemented without much work.

134 NHS Improvement (2011). Guidance – How to create an Affinity Diagram. www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2017/11/Creating-an-Affinity-Diagram.pdf

Example affinity diagram

Affinity diagrams can also be used to organise any possible causes for an issue. You can use the brainstorming tool to identify these causes and the affinity diagram to organise and sort them. In this example, a team have used the brainstorming tool to rapidly identify possible causes for patients missing GP appointments. These have then been organised into four themes: patient factors, GP clinic factors, socio-demographic factors and other factors.



Adapted from: NHS England and NHS Improvement[135]

135 NHS England and NHS Improvement. Affinity Diagram. www.england.nhs.uk/wp-content/uploads/2021/12/qsir-affinity-diagram.pdf

Convergent thinking: Prioritisation Matrix

The prioritisation matrix is a visual tool to help improvement teams decide which change ideas to test first and how and where to focus their energies. As well as supporting the planning of improvement work, prioritisations matrices also help to communicate why a particular change idea has been chosen to test ahead of others.

Matrices come in many different forms, but the simplest and easiest to use is a two by two matrix. Usually the horizontal axis is labelled with a concept such as 'effort' or 'willingness to adopt'. The vertical axis is usually 'impact' or 'value'. An example below uses 'impact' and 'effort'.

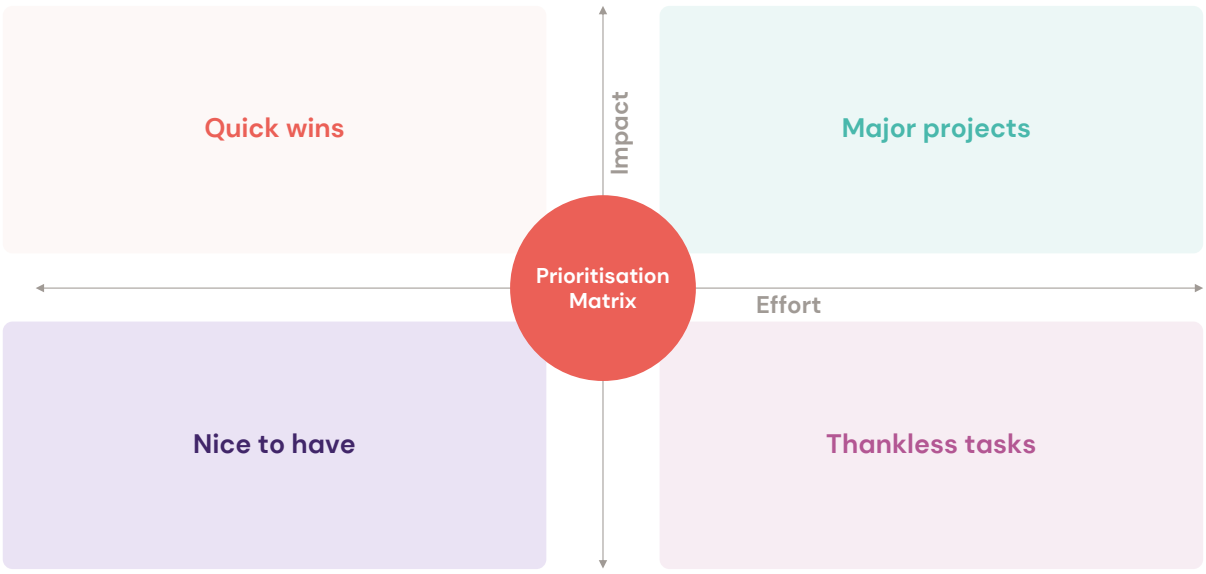
The four boxes indicate the priority of each task.

1. **Quick wins**
   These should be done first. They require little effort (perhaps one person can take on this task and it will only take them a short amount of time) and have a high impact.
2. **Major projects**
   These should be done next. They require more effort (perhaps many people working together on this task for many weeks/ months) and will have a high impact.
3. **Fill-ins**
   These should be done last (if at all). They require little effort and have an anticipated low impact.
4. **Thankless tasks**
   These should not be done at all. They require high effort and have an anticipated low impact.

As a coach you may wish to introduce this tool after teams have created a driver diagram. Often it can feel quite overwhelming to consider where to begin after developing a driver diagram – tens of ideas and where do we start? By consolidating ideas through a prioritisation matrix, the team will have some useful first steps.

As well as exploring the impact/effort relationship for each change idea, teams should also consider which ideas require a PDSA approach and which can just be implemented without the need for testing. On the prioritisation matrix they could denote this with a 'T' for 'Test' and 'I' for 'Implement'.

Adapted from: TURAS Learn[136]



136 TURAS Learn. Prioritisation Matrix. https://learn.nes.nhs.scot/3981

Convergent thinking: Pairwise Comparison

Pairwise comparison is a simple and effective tool for prioritising and ranking multiple options relative to each other. It is typically used when quantitative data is not available to support the decision-making process and when you are unable to decide which idea to take forward to implementation.

How to use pairwise comparison

1. Identify the solution ideas you want to compare. List them on a flipchart or whiteboard and assign a letter to each idea (i.e. idea A, idea B, idea C and so on).
2. Draw a matrix, with space to compare each idea against all of the other ideas. In the template on the right, the white boxes indicate where space has been allocated to compare ideas.
3. Develop set criteria you will use to support your comparison. This will be used by the team to compare each individual idea. Criteria could include staffing requirements, equipment resource requirements, cost, risk level, patient experience etc.

	A	B	C	D	E
A					
B					
C					
D					
E					

A matrix comparing five different ideas (A to E)

4. After establishing criteria, use it to compare each idea to every other idea using the matrix, until all the white boxes are filled. In the example below, we can see that idea A was voted better than B, better than C but worse than D and E.
5. After completing all comparisons, tally the number of times each idea won. Use the results to inform your next steps (i.e. deciding on what to test/implement).

   In the example opposite we can see there is an overall preference for idea D (A = 2, B = 0, C = 2, D = 4 and E = 2).

	A	B	C	D	E
A		A	A	D	E
B			C	D	E
C				D	C
D					D
E					

A complete pairwise comparison. Here D has been selected as the best idea, based on the set criteria.

07

Further Opportunities

The Q Community

Q is an initiative connecting people, who have improvement expertise, across the UK and Ireland. It is delivered by the Health Foundation and supported and co-funded by partners across the UK and Ireland.

Q's mission is to foster continuous and sustainable improvement in health and care. To achieve this, they provide opportunities for people to come together and form a community – sharing ideas, enhancing skills and collaborating to make health and care better.

The community is made up of a diverse range of people including those at the frontline of health and social care, patient leaders, managers, researchers, commissioners, policymakers and others. This boosts the power of Q as a source of innovation and practical problem solving by including a wide range of perspectives.

More info: https://q.health.org.uk/join-q/

Conferences

International Forum on Quality and Safety in Healthcare
Run by BMJ/IHI
Yearly conference in Europe attended by ca 3000 healthcare professionals from across the world.

There is typically a cost to attend.

More info: https://internationalforum.bmj.com/

Q annual conference
Run by The Q Community
Annual conference for all Q members, with a focus on sharing learning, connecting and networking.

Free to attend for Q members.

More info: https://q.health.org.uk/

Patient Safety Congress
Ran by HSJ
Yearly national conference focusing on patient safety and QI work.

There is typically a cost to attend.

More info: https://patientsafetycongress.co.uk/

Further QI learning and coaching learning

FutureLearn: Quality Improvement in Healthcare: the Case for Change

This is an online QI course, available to all on the FutureLearn platform. The content and programme has been created by the University of Bath.

More than 34,000 people have enrolled on the course (as of July 2023).

More info: www.futurelearn.com/courses/quality-improvement

QSIR programme (from NHS Improvement)

The Quality, Service Improvement and Redesign (QSIR) programmes focus on service improvement and are delivered to a range of staff involved in healthcare.

More info:
https://aqua.nhs.uk/QSIR/

Institute of Healthcare Improvement

The Institute for Healthcare Improvement offers many opportunities for QI learning, including:

The IHI Open School, a great resource for introducing improvement, safety and leadership concepts:
www.ihi.org/education/ihiopenschool/Pages/default.aspx

The Improvement Advisor Professional Development programme:
www.ihi.org/education/InPersonTraining/improvement-advisor-uk/Pages/default.aspx

FutureNHS

FutureNHS is a collaboration platform that empowers everyone working in health and social care to safely connect, share and learn across boundaries.

Join for free: https://future.nhs.uk/

The School for Change Agents

The School for Change Agents helps people to develop the skills to make a difference and create change in health and care. It is aimed at anyone who works in health and care, at whatever level and whether they are in a clinical or non-clinical role.

More info: https://horizonsnhs.com/school/

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