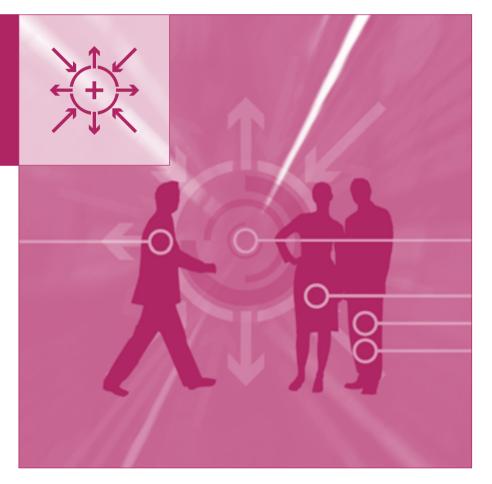Improvement Leaders' Guide

Improvement knowledge and skills

General improvement skills

Improvement Leaders' Guides

The ideas and advice in these Improvement Leaders' Guides will provide a foundation for all your improvement work:

▶ • **Improvement knowledge and skills**

  • Managing the human dimensions of change

  • Building and nurturing an improvement culture

  • Working with groups

  • Evaluating improvement

  • Leading improvement

These Improvement Leaders' Guides will give you the basic tools and techniques:

  • Involving patients and carers

  • Process mapping, analysis and redesign

  • Measurement for improvement

  • Matching capacity and demand

These Improvement Leaders' Guides build on the basic tools and techniques:

  • Working in systems

  • Redesigning roles

  • Improving flow

You will find all these Improvement Leaders' Guides at
www.institute.nhs.uk/improvementguides

Every single person is enabled, encouraged and capable to work with others to improve their part of the service
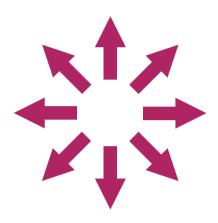Discipline of Improvement in Health and Social Care

Contents

1. What is improvement?

Why do I need to read this Improvement Leaders' Guide?

What have we learnt about improvement?

What's in it for me?

Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it.

A A Milne

1.1 Why might this be important to me?

How many times have you been frustrated or concerned that the service or care you give is not as good as you would want or could be and you think there must be alternatives. This is what 'improvement' is all about: continually working together to improve the experience and outcomes for patients and users and looking for other ways to provide health and social care that continuously improves the way it meets the needs of those who depend on it and the working lives of staff who provide it.

To make improvements we must all work together to:
• develop ways to involve patients, carers and users and understand their needs
• develop approaches to measuring outcomes that are meaningful to them as people and as patients
• design safe processes of care to connect these needs and outcomes
• create working environments within which staff teams are provided with opportunities to jointly reflect on, learn and design improvements to the care they provide

We have come a long way in the past few years but we have a long way to go from where we are now to where we want to be. It would be wrong to give the impression that it is easy: it's not, because healthcare is a mass of complex systems. However understanding improvement thinking is where you can start.

1.2 Why improvement?

In this Improvement Leaders' Guide we will describe different types of knowledge and skills that will help you make the improvements you want for your patients and give you some ideas of how you can manage your own development. Remember that one of the key things we can influence is ourselves and that's why developing your own improvement knowledge and skills is so important.

Understanding improvement will help you to:
- improve the outcome and experiences for those who use your services
- improve the flow of patients and information going through your department and the whole healthcare system
- reduce queues or waiting lists
- design systems to avoid mistakes
- improve the working environment for staff
- increase job satisfaction for yourself and others
- identify your own development needs as well as the needs of others
- build your individual competence and confidence
- develop excellent business cases when you do need extra resources
- understand and influence the culture you work in

A lot of improvement is about changing mindsets. It is about having the tools, techniques and confidence to work with your colleagues to try something that is different. It is about understanding the possibilities of thinking differently and aiming to make practical improvements for patients and a better working environment for yourself.

The UK Pursuing Perfection health and social care communities have been using a set of aspirations to drive large system transformation. A transformed health and social care system is one where there are:
- no needless deaths or disease
- no needless pain
- no feelings of helplessness amongst users or staff
- no unwanted delays
- no waste
- no inequality in service delivery

These aspirations are proving to be effective in raising ambition amongst staff and creating a sense of shared commitment. Furthermore, the Pursuing Perfection communities are finding that asking teams to set their own goals for improvement within this framework is leading staff to aim beyond externally set goals and re-appraise what is possible.

1.3 What improvements make the most impact?

There are two commonly asked questions about improvement
• what service redesign improvements will make the biggest difference?
• what are the benefits that can be achieved through improvement?

As a result of these questions, the work of thousands of clinical teams have been collected, and distilled into the 10 High Impact Changes for Service Improvement and Delivery. These are evidence based and we know they work!

'If these changes were adopted across the NHS to the standard already being achieved by some NHS organisations, there would be a quantum leap improvement in patient and staff experience, clinical outcomes and service delivery – and waiting lists would become a thing of the past.'
10 High Impact Changes for Service Improvement and Delivery

For more information about the 10 High Impact Changes go to
www.institute.nhs.uk/highimpactchanges

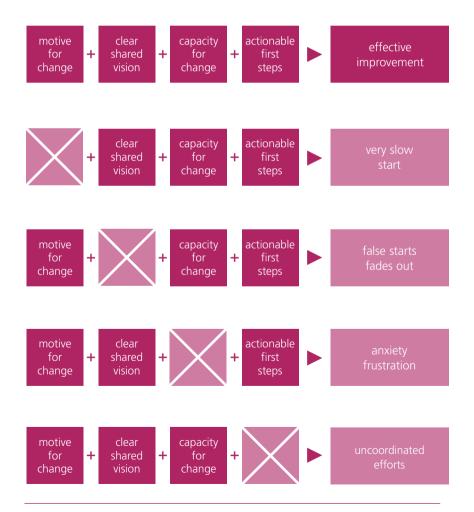| 10 High Impact Changes for Service Improvement and Delivery	
1	Treat day surgery (rather than inpatient surgery) as the norm for elective surgery
2	Improve patient flow across the whole NHS system by improving access to key diagnostic tests
3	Manage variation in patient discharge thereby reducing length of stay
4	Manage variation in the patient admission process
5	Avoid unnecessary follow-ups for patients and provide necessary follow-ups in the right care setting
6	Increase the reliability of performing therapeutic interventions through a care bundle package
7	Apply a systematic approach to care for people with long-term conditions
8	Improve patient access by reducing the number of queues
9	Optimise patient flow through service bottlenecks using process templates
10	Redesign extended roles in line with efficient pathways to attract and retain an effective workforce

These changes give a clear indication of where effort can be applied to make real and significant improvement. They should not be seen as one-off initiatives but as part of a concerted long-term effort to transform NHS services.

However you need to separate the 'what' from the 'how'. You may know what you want to do or have to do, but if you don't know where or how to start, it all gets very difficult.

1.4 How do I make improvements?

For you or your team to begin to make real improvements for your patients, you will need a reason for doing it, a clear shared vision about what you want it to look like, some tools, techniques and time to make the changes as well as having capacity for change and knowing where to start.

If any of these elements are missing it is likely that you will not be able to make good, effective improvements.

motive for change	+	clear shared vision	+	capacity for change	+	actionable first steps	▶	effective improvement
✕	+	clear shared vision	+	capacity for change	+	actionable first steps	▶	very slow start
motive for change	+	✕	+	capacity for change	+	actionable first steps	▶	false starts fades out
motive for change	+	clear shared vision	+	✕	+	actionable first steps	▶	anxiety frustration
motive for change	+	clear shared vision	+	capacity for change	+	✕	▶	uncoordinated efforts

1.5 What has been learnt about improvement?

'What would be your advice to someone just starting out on developing their improvement knowledge and skills?'

This was the question asked of fifty NHS staff experienced in improvement. This is what they said:

1 Understand and value all aspects of improvement
Even if you're not a 'theory' person, you will find it will guide you in your practice and that the principles can be applied across many different situations. Experience and understanding has been gained in the following areas:
- involving people: patients, carers, staff and stakeholders
- process mapping, analysis and redesign
- use of the model for improvement and PDSA (plan, do, study, act) cycles
- managing capacity and demand
- measuring for improvement including SPC (statistical process control)
- managing the human dimensions of change
- planning and managing the project
- facilitation and presentation skills
- working in complex systems
- accessing information, knowledge, research and ideas
- use of technology
- evaluating the impact and managing the benefits
- creative thinking techniques

A lot of the latest thinking and experiences in healthcare improvement has been captured in the Improvement Leaders' Guides. Look at all the Improvement Leaders' Guides www.institute.nhs.uk/improvementguides
But don't worry - you don't need to know everything.

Feel good about not knowing everything. These days there is so much knowledge around that we risk drowning in it. Learning about how things are interconnected is often more useful than learning about the pieces
Fraser S, Greenhaugh T (2001)

2 Systematically test improvement ideas and learn from those tests

You need to:

- diagnose the real problem before starting
- define and agree the aim which is linked to the problem and which is measurable
- collect and report the few key measures for which data can be consistently and practically collected and which link to aim
- share the reported measures with all the key stakeholders and learn from the process
- benchmark with the best, share improvement ideas and learn from others

3 Get under the skin of those who use the service

See the current processes and systems through their eyes and understand the extent to which there is needless duplication, waste, delay and variation. You need to:

- sit down and listen to a patient's story of the 'journey' they had to navigate to get the care they needed
- map that journey step by step from phoning the GP or NHS Direct to getting to where they got to. How many people were involved? How many times did the patients or their notes or letters or information go to and fro between these people? Note down the delays and each step. Do the sign posts help or hinder? Are there clear instructions? Who said what at what stage? How many times did the patient have to repeat steps?
- map the administration steps that the patient didn't see but had to wait for. Note the delays, the number of steps in which the staff had to repeat steps or wait for something before they could complete the step

4 Understand the impact of culture on how people work

Understand people, groups, teams, and organisations:

- familiarise yourself with the history of your organisation: what has gone well in the past, and why? If there have been failures, what contributed to them?
- what are the values and belief systems you meet when you talk to the staff on that journey? How would you feel if you were that member of staff or the patient?
- appreciate that not everyone will share your enthusiasm: take time to find out why some people object or resist, and what will help to change their minds.
- plan your stakeholder involvement. Make a list of everyone you think needs to be involved, both within and outside of your organisation, especially clinical staff

**Case study
Radiology department in the Midlands**

A radiology department used to contact the porters directly when they needed a ward patient for x-ray. However patients were often not ready when the porters arrived which caused delays and frustrations for both x-ray and the porters.

Following extensive data collection and consultation it was agreed that x-ray would get in touch with ward staff who in turn would contact the porters themselves when the patients were ready to go to x-ray.

This has considerably freed up porters' time for other journeys and shown how the effective use of portering services has an impact on the whole hospital and patient care.

5   Know how you can pick up new ideas, learn together, share your experiences and celebrate your successes
- identify and learn from the best by looking for others who have led successful improvement initiatives
- share your experiences with others and learn from others by attending improvement events on a regular basis. This will also help you to develop support networks
- write about your experiences, learning and successes for sharing and publication

6   Be very clear about the aim of the improvement you want to make
Link your aim to the:
- 10 High Impact Changes for Service Improvement and Delivery
- priorities of your organisation
- the needs of your patients

Write your aim statement in a clear unambiguous, measurable way and share it with others. This way you will find it easier to get the help and support from others.

7 From day one plan for sustainability and spread

Ask yourself the following:

- have you planned your evaluation strategy so that you can share the benefits and learning?
- do you have all the necessary baseline data to enable you to make measurable and meaningful comparisons later on? How will you measure and demonstrate improvement?
- have you got all the conditions in place to help ensure your improvement will be sustained?

Making improvements is about knowing what to do, knowing how to do it and being motivated and encouraged to do it. The Improvement Leaders' Guides are a really good place to start

Experienced improvement practitioner

1.6 How has improvement thinking been developed?

Over the past years staff have been making lots of great improvements to the service they provide. A lot of the lessons are from industry but adapted for healthcare to help us look at our service from a different point of view – there is very little that is new! We have learnt a huge amount and have lots of experience about what works and what does not. The evidence based 10 High Impact Changes for Service Improvement and Delivery are a great example of this.

But knowing what to do is not enough – we needed to understand how improvements could be introduced. So a group of experienced 'improvers' worked together to consider this, defined what improvement meant to them, and what knowledge and skills they used or wished they had. This group involved doctors, nurses, therapists and managers from all parts of health and social care across England. They have developed a vision statement for this work:
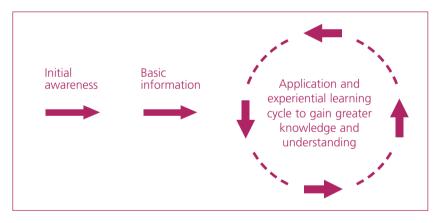
Every single person is capable, enabled and encouraged to work with others to improve the service they provide

Building the Discipline of Improvement in Health and Social Care

1.7 How does it fit in with all my professional knowledge and experience?

Improvement thinking complements and enhances your professional knowledge and experience: in no way does it compete with it or replace it. However many of us have had no reason to even become aware of improvement knowledge and skills in our current work so you need to develop your understanding and how to apply it:

• first of all you need to be aware: you don't know what you don't know
• then you need some basic information: you need to have enough information to explain why it may be important and how you might use it. This is the aim of all the Improvement Leaders' Guides
• finally you need to apply improvement knowledge and skills in your work. This is the best way to learn and really understand how it can help you and your patients. Improvement often requires a different approach and mindset from applying professional knowledge so keep an open mind
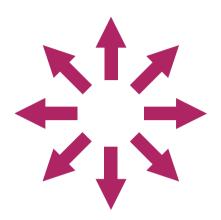
Initial awareness

Basic information

Application and experiential learning cycle to gain greater knowledge and understanding

It is about thinking differently
A bug spends its whole life in the fibres of the most beautiful Persian rug ever made. Every day the bug meets problems and obstacles. The bug eventually dies without ever having a view of the wonderful pattern of the rug seen from above, free from the everyday obstacles that trapped the insect in the fibres.

The moral of the tale is that a person obsessed with his or her immediate problems never gets to see the bigger picture and the overall pattern.
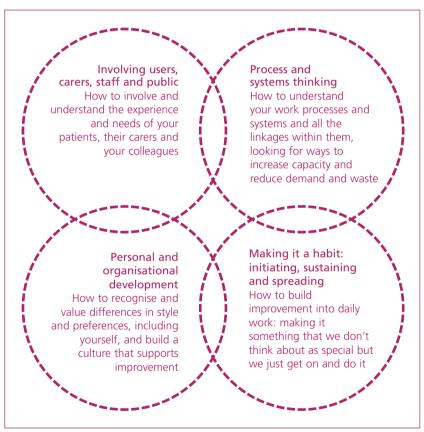
2. What do I need to be able to do?

Discipline of Improvement in Health and Social Care

Building your improvement knowledge and skills is a bit like doing a jigsaw puzzle:
- there are lots of parts that make up the whole picture
- most people start in a certain way and we can give you advice on this but you can start anywhere you want to – wherever it is best for you
- you will see different parts developing in isolation but you will not see the whole picture until all the parts join up
- you will eventually need to access all the parts to make up the whole picture
- it is more enjoyable and a lot quicker if you work with others and take a team approach

Discipline of Improvement in Health and Social Care

This model of improvement thinking involves four equally important and interrelated parts that are seen by many to be the foundation for all improvement activities. It can be considered to be the rock on which we build anything we do to improve any aspect of care for users. All the four sections are well researched and there is a lot of evidence in the NHS of their effectiveness and importance.

Involving users, carers, staff and public
How to involve and understand the experience and needs of your patients, their carers and your colleagues

Process and systems thinking
How to understand your work processes and systems and all the linkages within them, looking for ways to increase capacity and reduce demand and waste

Personal and organisational development
How to recognise and value differences in style and preferences, including yourself, and build a culture that supports improvement

Making it a habit: initiating, sustaining and spreading
How to build improvement into daily work: making it something that we don't think about as special but we just get on and do it
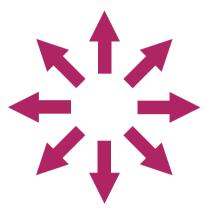
Discipline of Improvement in Health and Social Care
Jean Penny 2003

Look at section 4.1 for more details abut the Discipline of Improvement in Health and Social Care and assess your current knowledge and skills.

3. How do I develop my improvement knowledge and skills?

What do I need to know?

Who can help me?

How do I build on my existing knowledge and skills?

Where are the gaps?

How can I learn about improvement?

What improvement development is available to me locally?

Where do I start?

3.1 What do I need to know about improvement?

If you went on the internet and typed in the word 'improvement' there would be thousands of hits so remember that you cannot know everything, but you can plan your own improvement development.

First of all be honest with yourself and think about your own needs and wants in relation to the knowledge and skills of improvement described: what do you need to know in order to make a difference?

Ask yourself the following questions
Personal interest:
- what is it that interests you?
- do you want to develop 'expertise' in any of the topics or a general understanding of all improvement topics?

For your current job:
- what is it that you need to do your job?
- what improvement knowledge would help with any frustrations in your job?

For your future:
- what do you need to continue developing the best care for your patients or to advance your career?

Strengths:
- where are your current strengths?
- what do you want to build on?
- what do you do well and could share with others?

Learning styles:
- how do you like to learn?
- how can you fit learning new things in with your job and personal life?

Case study
Career opportunities with improvement knowledge and skills

Cherry has worked in an acute Trust in the Midlands for 21 years. For the last ten years she has worked as an Occupational Therapy (OT) Department Administrator in a team alongside clinical staff. She then had the chance to attend training provided by the SHA, prompting her to undertake a project to improve the patient journey through the OT process for Arthroplasty.

Attendance at all training sessions together with additional optional courses provided the skills and tools necessary for Cherry to manage the project through to its successful completion. She found the fact that she was not a clinician was not a disadvantage in managing the changes necessary for the project.

Cherry is now seconded from the OT department to act as a Service Improvement Facilitator; a significant promotion which offers a multitude of career opportunities.

3.2 Who can help me?

There are probably lots of different people in your organisation working on different aspects of improvement. If you can, do some research for yourself to find out what projects are going on locally, where the work is happening and who's involved. Find out if your others in your organisation are involved in improvement work and make contact to see if you can help each other.

Others who can help include:
- Director or Head of Modernisation / Service Improvement: they will know all about the improvement programmes in different departments and they will be able to advise on possible secondments for improvement development. They will also have links to the modernisation and improvement leads in neighbouring organisations and at the Strategic Health Authority (SHA)
- Human Resources Department: they will be able to advise on any work based learning opportunities and how to access appropriate local courses
- Clinical Governance team: with their links with risk management, audit and research, they will be able to advise on all the local and national work to improve clinical effectiveness

- IT department: the analysts here will be able to help with data and measurement for improvement
- Finance department: this is where you will find expertise to help you build a business case for improvements you have tested that may need some funding

Remember many of these people will themselves be learning about improvement so make sure you link your requests to the interests and priorities of the people you are talking to. The 10 High Impact Changes for Service Improvement and Delivery are likely to be gaining in importance, so know how your improvement idea fits www.institute.nhs.uk/highimpactchanges

Case study
Building improvement into a department strategy

A radiology department in London has adopted the concepts of improvement and redesign. Service improvement is now included in the job descriptions for all new posts and has been introduced in the appraisal process for all superintendents.

All staff have a responsibility to be involved with the department's service improvement programme and to assist with collection of capacity and demand data. Analysis and interpretation of the data is carried out by the superintendent radiographers and is reported back on a monthly basis. The constant collecting and analysing of the data means that the service can respond to fluctuations in demand fairly rapidly. Service redesign has reduced patient waits across virtually all modalities and on-going redesign work will ensure that reduced waits are maintained.

Everyone has the opportunity to get involved and learn about how to continue improving the service that the department can deliver. This in turn has improved working life for staff, increasing morale and improving retention.

3.3 How do I build on my existing knowledge and skills

Think of improvement skills as either adaptive or special knowledge skills and use as part of your personal development planning.

Adaptive skills are the skills we tend to overlook because they seem so obvious. In other words, you have a natural talent for doing something that comes so easily that you may not consider it a skill.

One of the best ways to understand these is to ask someone close to you, 'What do you see as my greatest strengths?' These are your special talents and perhaps your unique contribution when applied to the right setting, people and circumstances. These are the things you already know so well you rarely think about.

List the things that make you special and see how these link with the Discipline of Improvement model described in Section 4.1. For example you might have a real skill for talking to patients and their carers in a way that encourages them to tell you their story or you might have real skill for looking at data and understanding what it says.

Your adaptive skills	What part of improvement does it relate to? • involving patients, carers and staff • personal and organisational development • process and systems thinking • making it a habit (initiating, sustaining and spreading)

Special knowledge skills

You acquire these skills by following specific training programmes and then developing those skills through practice. These are the skills of your job whether it is in secretarial, medicine, management or nursing.

Which skills do you already have due to your previous and current work, training and education that are also improvement skills? Have you developed facilitation skills, do you regularly use writing skills or have you developed your research skills? Again map your special knowledge skills against the four parts of improvement.

Your special knowledge skills	What part of improvement does it relate to? • involving patients, carers and staff • personal and organisational development • process and systems thinking • making it a habit (initiating, sustaining and spreading)

Case study
Using process mapping in staff development

I was working with a group of ward managers to help them develop their people management skills. One manager had a problem with lateness on her ward and I wanted to help her to work with her staff to really understand their problems and come up with possible solutions.

I had used the Improvement Leaders' Guide to the human dimensions of change many times before as it has good descriptions about how it all feels and some really useful exercises. But this time I thought the Improvement Leaders' Guide to process mapping, analysis and redesign would help to see how people got to work and what happens to staff before their start time of 7.00am.

The whole team were involved and with process mapping, they could see each other's journey to work each day. One person's journey was particularly horrific. She had to leave her home at 4.00am and catch 4 different buses to get there by 7.00am and often she didn't make it on time. As everyone understood her problems, they all agreed that she should start her shift later. If the manager had done it by herself, all the others would have asked 'why her' but doing it this way they all understood.

All these tools and techniques for improvement are so adaptable, they can be used for all sorts of Human Resource issues and problems.
HR Manager, London

3.4 Where are the gaps?

Finally think about where you feel you need development. Think through what you need and what impact it will have on your work and development.

Ask yourself
- do you know how to map and analyse a process?
- do you know how to measure and manage the capacity and demand at a process bottleneck?
- do you really understand the needs of patients and their carers?
- would you know how to start changing a culture to support improvement?
- do you know about your own personal style and the preferences of those you work with?
- could you project manage an improvement initiative?

Think carefully about your personal needs and the benefits that development can bring

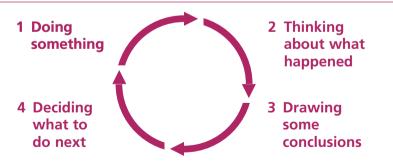| Personal needs benefits analysis table			
Four parts to improvement	**Inputs**	**Outputs**	**Measureable impact**
Involving patients, carers, staff and the public	For each one of the four parts of improvement ask yourself:	What do I expect the impact to be for:	How will you measure the impact of development on:
Personal and organisational development	• what do I need? • why do I need it?	• me? • my colleagues?	• yourself? • your colleagues?
Process and systems thinking	• who can support me?	• my organisation?	• your organisation?
Making it a habit: initiating, sustaining and spreading improvement thinking	• how do I get that support?	• my patients? • their carers?	• your patients? • their carers?

3.5 How do I learn about improvement?

Learning is a very personal thing – we have to do it in our own way! However it is generally recognised that learning for us all involves a cycle of events: doing something, thinking about what we have done and the consequences of our actions, drawing some conclusions and deciding what to do next.

1 Doing something

2 Thinking about what happened

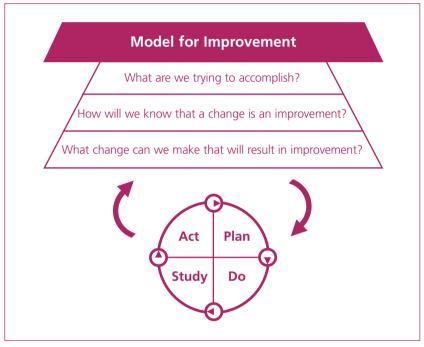**4 Deciding what to do next**

3 Drawing some conclusions

Think about the learning cycle in relation to learning to riding a bike, driving a car, baking a cake and using a computer

Kolb DA (1984) Experimental Learning, Prentice Hall

The problem comes when we do not take the time to think, learn and draw conclusions from our actions before doing the next thing.

Notice how similar it is to a PDSA cycle, which, after all is also about learning!
Again the key learning stage is 'study' when you should take time to analyse
what has happened and compare to any predictions or thoughts about what
you expected to happen.

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Act · Plan · Study · Do

Reference: Langley G, Nolan K, Nolan T, Norman C, Provost L, (1996), The Improvement Guide:
a practical approach to enhancing organisational performance, Jossey Bass Publishers, San Francisco

We recommend the Model for Improvement many times in the Improvement
Leaders' Guides but don't forget to use it to 'improve' or develop yourself.

Ask yourself those three key questions and then plan your improvement
learning, do it, study the impact and then act on what you find.

Note: Notice how similar the PDSA cycle is to the scientific method of
hypothesise (P), collect data (D), examine data against hypotheses (S) and
rethink hypotheses (A).

Although we all need all the stages in the learning cycle (see page 24) you may have a preference for activities associated with one or two particular stages. If your preference matches with the activity, you are much more likely to learn. If there is a mismatch you are much less likely to learn.

Style	Description	Most effective learning activities
Activists like to do something	Activists like activity, they want new experiences and just want to try it out. When one activity finishes they are looking for the next.	New learning experiences and activities e.g. games. Learning in a group. Opportunities to have a go.
Reflectors like to think about what happened	Reflectors like to collect data and think. They tend to be thoughtful and cautious.	Opportunities to watch and think. Able to research to gain information. No pressure of tight deadlines.
Theorists like to draw conclusions	Theorists like to integrate observations into sound, rational theories. They like things to be logical and to make sense.	Exposure to ideas and concepts that are rational and logical. Chance to question methodology and assumptions. Time to explore the associations between ideas
Pragmatists like to decide what to do next	Pragmatists are down to earth people who like things to have a practical implication. They enjoy solving problems.	Direct links to a problem or job. Lots of practical examples and case studies with the chance to implement immediately.

Adapted from Honey and Mumford learning styles

3.6 What improvement development is available to me locally?

Many courses will help you develop various aspects of improvement. The main thing is to be really aware of what they cover and what parts of improvement they do not. Also think very carefully about how you will apply what you have learnt back in your workplace. This is where real learning happens.
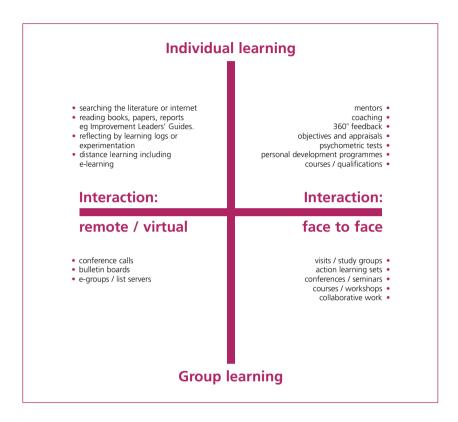
Example:
A University Business School in the Midlands offers a short course targeted at those with responsibility for service improvement within the healthcare system including General Managers, Directorate Managers, Improvement Managers, Improvement Support Staff, Clinical Leads for Improvement Activity and Improvement Trainers and Facilitators.
The course covers:
• Strategy & Policy Deployment
• Performance Measurement
• Programme Management
• The Design of Service Processes
• Planning and Control
• Quality Management and Improvement

But training courses may not suit your preferred style and may not be convenient for you considering your job and life in general. Think carefully about how best you learn. Do you like and need face-to-face interaction? Do you like to be by yourself or do you like to be in a group? Look at all the different methods in the table on the next page and think about 'blending' a variety of different learning methods that is best for you. Design your own learning programme.

Individual learning

- searching the literature or internet
- reading books, papers, reports
  eg Improvement Leaders' Guides.
- reflecting by learning logs or
  experimentation
- distance learning including
  e-learning

mentors •
coaching •
360° feedback •
objectives and appraisals •
psychometric tests •
personal development programmes •
courses / qualifications •

Interaction:

remote / virtual

Interaction:

face to face

- conference calls
- bulletin boards
- e-groups / list servers

visits / study groups •
action learning sets •
conferences / seminars •
courses / workshops •
collaborative work •

Group learning

Strategic Health Authorities (SHAs) have the responsibility to champion and co-ordinate local improvement work. So find out what is available to you locally either in your organisation, through your SHA or local universities.
It's best to keep checking as they will often change according to demand and need.

Case study
Career opportunities with improvement knowledge and skills

I am a nurse employed as the Assertive Outreach Service Manager. Assertive outreach is a developing service currently employing 23 staff working in 3 localities. It is part of the National Service Framework in Adult Mental Health.

I wanted to expand the service to ensure equal access and equity of service across the county so I joined the local Project Support Group. This has been really rewarding. I have received high quality training giving me confidence in the tools and I now understand the process and have a framework in which to manage it. I have also been able to use my backfill money creatively to help develop and support other colleagues.

The main work of my project is complete and I now feel skilled, confident and open to ideas and change. I have met some great colleagues, experienced the incredible diversity to be found in our NHS and am currently looking for new career opportunities. I feel very energised and optimistic about both my career and life.

The world will belong to the 'learners' - whilst the 'learned' will find themselves perfectly prepared for a world that no longer exists!
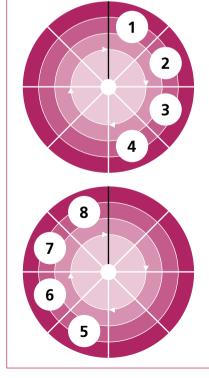Anonymous

3.7 Where do I start?

A group of experienced Service Improvement Managers described improvement as a cycle with eight stages and in two distinct sides. They advise anyone interested in improvement to understand how important it is to start with the basics. Lots of improvements can be made by getting the basics right and creating a good foundation on which innovative and visionary redesign can be established. Be very aware of trying to jump straight into redesign before getting the basics right. It can be like wallpapering over the cracks, the cracks are still there and will reappear in the future!

Treat each stage with equal importance. Think carefully about the overall aim and for each specific stage consider:
- the objective
- the appropriate tools and techniques
- those who can and should share the responsibility for the work
- other support that might be available

Right hand side of circle

Objective: getting the basics right and creating stability
1 acknowledge there is a problem
2 surface the problem:
   make it known and help others to recognise the problem
3 diagnose the problem
4 get the basics right

Left hand side of circle

Objective: redesign
5 agree an improvement
6 test the improvement
7 revisit the problem and measure for improvement
8 implement and sustain the improvement

4. Activities

Use the activities described in this section and throughout this Improvement Leaders' Guide in the way that best helps you. Start by thinking things through by yourself but then share your thoughts with your colleagues or your line manager. Compare your thoughts and ideas: learn with and from each other.

4.1 Use The Discipline of Improvement in Health and Social Care to assess your current improvement knowledge and skills

As each of the four equally important and interdependant parts are described, look at the four levels of knowledge and skills described. It will give you an idea of your own understanding and experience.

Level of knowledge and skills	
0 Knowledge and skills not yet developed	• I have had **no experience** • Even though I know a few general principles, I have not developed any skills
1 Core knowledge and skills	• I have used this skill in my work but **infrequently** • I feel capable of applying some aspects, to some situations with appropriate and effective support and direction
2 Advanced knowledge and skills	• I have used this skill **frequently** in my work • I feel capable and confident that, with direction, I can apply this skill to most situations • I have a depth of understanding to be able to explain the basic principles to others
3 Expert knowledge and skills	• I have used this skill **regularly** in my work • I have the understanding and capability to apply and adapt the skill with confidence in complex work situations • I am able to act fully independently and provide direction, support and advice to others • I am confident that I could explain the principles, application, advantages and disadvantages to others

Personal and organisational development

This is about being able to work constructively with all the people involved: recognising and valuing differences in style and preferences including your own. It also includes understanding and building a culture that is supportive of improvement. It involves the use of the principles and thinking from psychology and organisational development.

Relevant Improvement Leaders' Guides:
- Managing the human dimensions of change
- Building and nurturing an improvement culture
- Leading improvement
- Working with groups

Objective	Key related terms, knowledge and skills
To be self aware	• personal styles / preferences / behaviours • learning: learning styles, reflective practice
To work in multi-disciplinary teams	• team working: group dynamics, cultures, relationships • feedback: giving and receiving • conflict • ambiguity • influencing
To work in organisations	• boundaries: professional, departmental, organisational • relationships • cultures: sub cultures, professional, organisational • receptive context • collaboration • learning organisations
To communicate	• jargonless: Plain English • listening • writing: reports, business cases • visual: presentations, graphics, data • verbal: inspirational speaking, motivating • electronic
To facilitate groups of staff, users and carers for improvement, innovation and learning	• facilitation • coaching • mentoring • consultancy • creative thinking

Process and systems thinking

This involves all the research and understanding about processes and systems and all the linkages within them. It is about process mapping and analysis and the application of industrial concepts such as capacity and demand, flow and waste reduction. It involves process measurements to gain insights into variation and flexible, innovative redesign of processes and systems.

Relevant Improvement Leaders' Guides:
- Process mapping, analysis and redesign
- Measurement for improvement
- Managing capacity and demand
- Improving flow
- Working in systems
- Redesigning roles

Objective	Key related terms, knowledge and skills
To understand the current place, role & function within the patient or support process	• processes: mapping, analysis • patient pathways
To understand the current place, role & function within the whole care system	• systems: simple, complicated, complex • complexity: complex adaptive systems
To match capacity & demand	• time series graphs: run charts • bottlenecks: demand and capacity management
To measure and interpret causes of variation	• variation; measuring, reducing, managing • control charts, SPC (Statistical Process Control)
To access and apply redesign principles to improve processes	• improvement: modernisation, redesign, re-engineering • creativity and innovation • clinical pathways: patient journey, protocols • workforce development: role redesign • improvement toolkits and guides: high impact changes, Improvement Leaders' Guides etc

Making it a habit: initiating, sustaining and spreading improvement thinking

This is about building improvement into daily work, making improvement a habit and something we don't think about as special but we just get on and do it.

Relevant Improvement Leaders' Guides:
• Improvement knowledge and skills
• Measurement for improvement
• Evaluating improvement
• Working in systems

Objective	Key related terms, knowledge and skills:
To link improvement into local and national context, politics and strategies	• structures, organisations and governance; local, national, health, social care, voluntary sector • improvement strategies and targets: local, national • collaboration • networks: communities of practice • commissioning
To manage an improvement project or programme	• goals, aims and objectives • targets and benefits • measures for improvement • reporting systems • performance management • business cases: cost / benefit analysis
To assess the current situation and readiness for change	• diagnostic assessments • receptive context • benchmarking
To keep your improvement going: sustaining improvement gains	• benefits: key targets, outcomes, staff, patients, efficiency, systems • business cases • making improvements mainstream

Objective	Key related terms, knowledge and skills
To evaluate the impact	• evidence: finding, translating, creating, explaining • statistics: interpretation • evaluation: qualitative, quantitative, formative, summative • knowledge management • information technology • impact assessment
To ensure minimum risk and maximum patient safety	• risk assessment • designing for safety
To encourage spread and adoption of improvement thinking	• marketing: selling • success: recognition, celebrations, rewards, awards • informal influencing
To build a learning team / organisation / community	• lifelong learning, work based learning • improvement development opportunities • having an open and enquiring mind

Involving users, carers, staff and the public

This is about using a variety of different and effective techniques to bring in the voices of users, carers, staff and the public. Their experiences and needs should be at the heart of all our improvement work: we need to hear, listen and act.

Relevant Improvement Leaders' Guides:
• Involving patients and carers
• Managing the human dimensions of change
• Working with groups

Objective	Key related terms, knowledge and skills:
To recognise, involve and incorporate the views of users, carers, staff and the public	• identification and involvement of stakeholders • consultation methods: interviews, focus groups, questionnaires • use of narrative and storytelling • customer service: focus, needs, involvement • partnership working

4.2 De Bono's six thinking hats to help you decide 'what next'

Edward De Bono, a leading expert on thinking, says 'The main difficulty of thinking is confusion. We try to do too much at once. Emotions, information, logic, hope and creativity all crowd in on us. It's like juggling too many balls'.

De Bono E (2000) Six thinking hats Penguin London

De Bono describes six different types of thinking that we all do all the time and associates each with a different colour hat. He calls this the six thinking hats which are summarised on pages 38 and 39. Try using De Bono's six thinking hats to help you think through what the information in this Improvement Leaders' Guide means to you and where you should go next. You can use this model in all sorts of situations especially helping youself or a group evaluate a variety of options. It allows and gives value to all our different thoughts.

Colour of hat	Visualise	Thinking style
White Information	Sheet of paper with information on it	Neutral, dispassionate and objective. 'Show me the facts and figures'
Red Feelings	Fire and warmth	Emotions. 'This is how I feel about it'.
Black Caution	Danger and risks	Critical thinking. Sombre, serious and cautious. 'It won't work because....'.
Yellow Benefits	Sunshine	Sunny and positive. Optimistic and hopeful. 'It can work because…'
Green Creativity	Seeds sown and starting to grow into plants	Energetic. Abundant and fertile. Dare to think the impossible.
Blue Managing thinking	Conductor of an orchestra or a helicopter view	Strategic and planning. Cool and controlled. Where are we now? Where are we going?

Adapted from De Bono E (2000) Six thinking hats Penguin London

What is next for you	Your thoughts and actions
What new facts have you learnt from reading this Improvement Leaders' Guide?	
How would you describe your feelings about the idea of developing your improvement knowledge and skill?	
What were the least positive aspects for you? Did you have any problems or issues?	
What do you feel will be the overall benefits for you, your colleagues, your organisation and most importantly your patients?	
What new thoughts and ideas have you had? What suggestions do you have to overcome the Black Hat concerns you mentioned above?	
What are the next steps and actions you intend to take to develop your improvement knowledge and skills?	

5. Frequently asked questions?

Question
What is the difference between competence and capability? They are both terms I have often heard and sound to be the same.

Answer
Here are two definitions that might help.

Competence is what individuals know or are able to do in terms of knowledge, skills and attitude.

Capability is the extent to which individuals can adapt to change, generate new knowledge and continue to improve their performance.

It is vital to be competent especially in our professional roles as it brings reassurance and confidence to those in our care. We also need to become competent and skilled in improvement in our own work areas. However in order to make the real improvements to our services we need to build improvement capability so that we can spread improvement thinking and learning from one department to another and from organisation to organisation.

Question
What is the difference between improvement, innovation and creativity? I am getting confused.

Answer
Think about an improvement as any method that brings about a measurable benefit against a stated aim. The model for improvement is a real help in this by asking the questions:
- what are you trying to achieve?
- how will you know a change is an improvement?
- what changes can you make that will result in the improvement that you seek?

Creativity is thinking flexibly to generate new and useful change ideas: perhaps making connections with services outside health and social care. An innovation is when a creative idea is put into practice. Remember that the vast majority of creative thoughts are never acted upon.

The NHS is recognising that as well as vital incremental improvements, we also need larger more significant changes that perhaps can only be achieved through creativity and innovation – doing things very differently. But all creative ideas, just like any other kind of improvement, need to be carefully thought through before they are implemented.

Case study
Some creative connections currently being tested

Adapting the McDonald 'drive through' idea for giving flu vaccines and dropping off pathology specimens to save time and space for parking.

Adapting the pizza delivery idea or 'pills on wheels' for patients unable to collect prescriptions.

Adapting the Airline Frequent Flyer Clubs idea for the management of long term conditions where personal information and preferences are stored on the card just like preferences for seating and diet on an airline.

Question
I want to look into some aspects of improvement in a lot more depth. What are the underlying theories of improvement thinking?

Answer
There is no easy answer to this as improvement covers such a breath of knowledge and research. Generally there are the technical engineering theories of systems, theories about human relationships and social interactions and complexity theories. There are also all the theories that support organisational development, design and adult learning. Basically improvement thinking is an amalgamation of many theories.
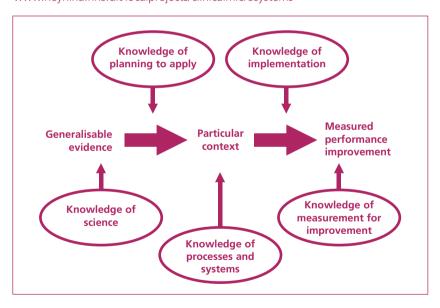
Question

How do I know that the improvement framework described on page 15 covers all the knowledge and skills for improvement?

Answer

Improvement thinking is continually evolving as we learn more. However a lot of work has been done to link and understand how others around the world are approaching healthcare improvement. Here are two other models that you might find useful:

Model 1

Five different types of knowledge needed to implement an improvement adapted from the work of Paul Batalden and clinical microsystems www.clinicalmicrosystem.org and
www.neynlha.nhs.uk/localprojects/clinicalmicrosystems

Knowledge of **science** includes:
- how sound is the evidence?
- what was the context of the evidence – can it apply to my team, service or organisation?

Knowledge of **planning to apply** includes:
- project planning
- measuring the baseline
- communication

Knowledge of **processes and systems** includes:
- organisational structures of people and facilities
- current processes and their bottlenecks
- patterns of demand and capacity as well as behaviours

Knowledge of **implementation** includes:
- generation of improvement ideas, creativity tools, innovation and techniques
- testing improvement ideas and learning about what works
- involving people and understanding the importance of the human dimensions of change and culture

Knowledge of **measures for improvement** includes:
- measuring for improvement
- measuring to reduce and manage variation
- measuring for sustainability

Model 2

The IHI (Institute for Healthcare Improvement, USA) Eight Domains of Improvement Knowledge

Customer beneficiary knowledge	• identify customers, internal and external • describe methods to identify customer needs
Healthcare as process/systems	• understand work as a process • analyse data on processes of work
Variation & measurement	• collect data on outcomes of care • analyse data on outcomes • collect and interpret quantitative data • differentiate common and special cause variation • use data to make changes that decrease unwanted variation
Leading, following, making changes	• display skill in active listening • give and receive constructive feedback
Collaboration	• work collaboratively with health professionals from other disciplines • work effectively in multi-disciplinary teams • appreciate the importance of interdisciplinary (doctor, nurse, manager and others) participation in the establishment of organisation-wide quality goals • describe why an interdisciplinary approach is necessary for continuous improvement in health care
Developing new locally useful knowledge	• conduct serial experiments of improvement (also known as Plan-Do-Study-Act cycles) • apply continuous improvement to personal learning and change
Social context & accountability	• understand the linkage of quality and cost in healthcare • apply continuous improvement within the current context of healthcare delivery
Professional subject matter	• all the specialised knowledge and skills that equips you to be a competent professional

Question
There seem to be lots of different approaches to improvement. Are they all the same and, if not, what exactly are the differences?

Answer
Some of the organisations offering or promoting a method of improvement in health and social care may only be focusing on one method of improvement. Here we briefly explain some of the different approaches that are currently popular.

You need to really look at what aspects of improvement the different approaches focus on and ask yourself if each one is right for you and your development, your organisation and its improvement strategy and the problems of your patients. We strongly advise you to find out more if they interest you – just type the term into the internet and you will find a lot of information and useful websites.

1. Care pathways
The development of care pathways or clinical pathways is a method of bridging the gap between clinical governance and service redesign. It involves researching for the best evidence and working with multi-professional groups to challenge current ways of working and develop agreed pathways. The care pathway documents the most appropriate care, at the most appropriate time, by the most appropriate person, and in the most appropriate place. It also captures the reporting and evaluation of any detouring from the process, activities and outcomes specified on the pathway.

Strengths
- it builds on many of the improvement skills described in this guide and the other Improvement Leaders' Guides including team building, partnership working as well as overall patient experience, communication and measurement for improvement
- it is based on evidence and has the potential to improve clinical outcomes and quality
- the emphasis on adverse events monitored is likely to address any risks and enhance patient safety

However there may be an inclination to just improve 'what is', i.e. incremental change, rather than more creative transformational change.

Reference: Layton A, Morgan G, McHardy G, Allison L (2002). How to successfully implement core pathways: a step by step guide, Kingston, Chichester.

2. Clinical microsystems

This is not a course or programme but a way to look at how care is delivered. Clinical microsystems are the building blocks, departments, units, practices etc. of larger organisations, such as hospitals and Primary Care Trusts. They are the places where small, multidisciplinary, interprofessional groups of people come together to offer care to a particular population of patients who are themselves considered to be an integral part of the microsystem.

The use of clinical microsystems as a framework for service improvement has been developed at Dartmouth Hitchcock Medical School in the US. They define a clinical microsystems as: "...the small, functional, front-line units that provide most healthcare to most people. They are the essential building blocks of the health system. They are the place where patients and healthcare staff meet. The quality and value of care produced by a large health system can be no better than the services generated by the small systems of which it is composed."

The clinical microsystem framework is used to help improvement work by providing a structure and theoretical underpinning for the work. A key element is the 5Ps framework to guide analysis and understanding of the microsystem, looking at the purpose (building clear and shared understanding of the aim of the microsystem), the people (gathering and valuing the staff views and experiences), the patients (profiling their needs and perspectives), the processes (how the work of the microsystem gets done) and the patterns (analysing the performance of the microsystem over time).

Strengths
- facilitates clear patient-focus for improvement work, yet also values the staff perspective
- flexible and adaptable to meet whatever challenges are presented to the microsystem
- helps larger-organisational development by easing cooperation and understanding between the 'building blocks' and fostering team working

There is more about clinical microsystems in the Improvement Leaders' Guide: Working in systems www.institute.nhs.uk/improvementguides
or go to www.neynlha.nhs.uk/localprojects/clinicalmicrosystems

3. Lean thinking

Lean thinking is a set of approaches, tools, and characteristics aimed at reducing the amount of time needed to produce a product or service.
The 'lean' approach was pioneered by Toyota in Japan and is widely used in the manufacturing industry. It focuses on value from a customer perspective, in our case the patient, by eliminating all activities that add no value. Lean is more about waste prevention than elimination whilst emphasising continuous improvement.

Strengths

- emphasis on clarity about customer purpose, before designing the processes and then organising the people
- adding value for the patient (customer), eliminating unnecessary waits, delays and waste
- improving flow between departments to ensure similar standards of care in a safe and pleasant environment

Lean thinking is even more effective when combined with the Theory of Constraints or Six Sigma.

4. Six Sigma

Six Sigma is a rigorous strategy for improvement based on analysis and measurement. Originally conceived in the manufacturing sector, it is becoming the predominant improvement methodology in private and public sector organisations worldwide. Six Sigma aims to develop products and services to such a high level of reliability that they are virtually 'defect free'.

The term 'sigma' (usually written as the Greek letter s) actually refers to a statistical concept: the amount of variation in the output of a process (however that output is measured). A Six Sigma process will produce 3.4 defects for every 1,000,000 products - in essence, a perfect process!

The method of improvement is called DMAIC. This is an acronym that stands for Define, Measure, Analyse, Improve, and Control: the five steps to systematic process improvement used in Six Sigma methodology.

Strengths

- the rigorous application of process and systems thinking including measuring for improvement and reducing variation
- understanding customer needs and root causes
- process capability is assessed and various solutions tested for improvement

However there is less emphasis on personal and organisational aspects of improvement.

Case study
Using Six Sigma to improve the reliability of a nursing rota in an acute hospital

This project was to help reduce a financial overspend on nurse staffing budgets in five ward areas in an acute Trust. It set itself a target of making £150,000 worth of savings by bringing the wards' expenditure on nurse staffing into line with their allocated staffing budgets. This was to be done through reducing variation in the nurse rosters without having a detrimental effect on quality.

The team used Six Sigma techniques to outline the scope and establish all the factors contributing to the overspend. Baseline measurements identified the exact level of overspend and the key contributing wards. Further analysis of the patterns of usage of bank and agency staff, sickness, annual leave rates and actual staffing levels generated several improvement ideas to tackle the problem.

The improvement ideas were evaluated and those showing greatest benefit whilst not impacting on the quality were implemented. These included the establishment of training to give those responsible for drawing up nurse rosters guidance on what makes a good roster and demonstrate how, through better communication and sharing of staff between wards, the use of more expensive agency and bank staff could be avoided. It also introduced staff to variation management and how to use control charts to monitor ward staffing levels in the future.

Early predictions are a cost saving of £230,000 over a twelve month period.

For more information about control charts and variation look at the Improvement Leaders' Guides: Measurement for improvement and Improving flow www.institute.nhs.uk/improvementguides

5. Theory of Constraints

A constraint is 'anything that limits a system from achieving higher performance versus its goal' (Goldratt 1990). The Theory of Constraints (ToC) is about concentrating efforts to identify and reduce the impact of the constraint in a system. Summarised by three improvement questions and steps:

- 'what to change? Pinpoint the core problems and recognise that not everything is 'broken'
- what to change to? Construct simple, practical solutions that can make a difference
- how to cause the change? Encourage the appropriate people to invent such solutions

Strengths

- the focus on bottlenecks and constraints, managing capacity and demand and reducing variation
- fits well with lean thinking and supports the rigour of Six Sigma measurement

However there is little attention to the people side of change.

Reference: Goldratt E (1990) Theory of Constraints, North River Press, Massachusetts

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Case study
Using the Theory of Constraints to reduce waits in A&E

An A&E department in the Midlands used the Theory of Constraints principle that in any system there is just one weakest link and the pace for the whole system is at the pace of that weakest link or bottleneck. Their objective was therefore to identify the bottleneck, make it work to full capacity and align the rest of the system to it.

They recognised that although the problem was seen in A&E, with unacceptable wait times, the capacity problems were often in other places across the system, especially in discharging patients out of acute care. They developed a general understanding of the Theory of Constraints and recognised that the problems of discharge required a 'multi project' organisational approach.

In A&E they divided the waiting time targets into green, amber and red 'zones' and monitored patient's waits according to this, taking action to avoid patients moving into the red zone. Across the hospital every patient is treated as a 'project' by prioritising and synchronising the work of the various departments involved.

6. Total Quality Management (TQM)
This is an all-embracing term that has been defined in different ways.
The principle is to involve everybody in the process of improvement and
advocates not just meeting the needs of staff and patients but also exceeding
their expectations.

Strengths
- empowerment of cross-functional teams to take the necessary action
- explicit focus on the needs of customers both internal and external
- examination of processes as causes of problems

However TQM is not very effective in complex systems when the solutions are
not so easy to identify and apply.

Question
There is so much! What advice would you give to me as someone just starting
out on improvement?

Answer
Here is a list of advice from an experienced improvement leader to someone
starting out just like you.

- look at your role. Look at what's being expected of you and what your
  responsibilities within that role are. Then develop a self-managed learning
  programme so that you can build your own personal capability and
  knowledge. If you manage other people, look at what you need to do with
  other members of your team

- be aware of the benefits of having a network that you can tap in to, both
  from a learning point of view, and for moral support. Find out where to
  seek support locally

- be familiar with any national and local documents that are relevant
  e.g. Improvement Leaders' Guides, and any other key improvement
  publications, websites, etc.

- seek out relevant corporate resources and explore how the improvement
  work that you're doing or planning would fit with your own organisations'
  aspirations

- appreciate the benefits of evidence both qualitative and quantitative. Be able to critique research and develop your own skills in writing for publication (such as case studies) so you can share your own learning with others

- be aware that 'pinching with pride' is not a bad thing to do. So seek out good practice or other ideas from around the country

- be aware of where and how you can tap into national or local skills development programmes. Contact your SHA to see what's available

- understand the importance of both whole systems working and measurement for improvement

- get both a mentor and coach to help your personal development, and also as another mechanism for support

- remember that whilst skills development and building capability in terms of individual or team knowledge is important, it's got to be balanced with actually doing things: keep it simple, practical and actually test and implement the improvement ideas. It's not enough just to have the new learning, you need to actually test it out and learn again. It is a continuous cycle

The vision:

Every single person is enabled, encouraged and capable to work with others to improve their part of the service

Discipline of Improvement in Health and Social Care

The Improvement Leaders' Guides have been organised into three groups:
General improvement skills
Process and systems thinking
Personal and organisational development

Each group of guides will give you a range of ideas, tools and techniques for you to choose according to what is best for you, your patients and your organisation. However, they have been designed to be complementary and will be most effective if used collectively, giving you a set of principles for creating the best conditions for improvement in health and social care.

The development of this guide for Improvement Leaders has been a truly collaborative process. We would like to thank everyone who has contributed by sharing their experiences, knowledge and case studies.

The mission of the NHS Institute for Innovation and Improvement is to support the NHS and its workforce in accelerating the delivery of world-class health and healthcare for patients and public by encouraging innovation and developing capability at the frontline.

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