



Building a
Better Health
Service

Seirbhís Sláinte
Níos Fearr
á Forbairt

National Quality Improvement Team

Quality Improvement Toolkit

An Introduction

Working in partnership to lead innovation and lasting quality improvement to
achieve better and safer care



Champion
Partner
Enable
Demonstrate



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Reader Information

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Glossary

Health services	Where the words “health service” are used, it refers to all of the services provided by the Health Service Executive or the health system globally. This may include for example, health care, social care, primary care, mental health or community services. It is often broader than health.
Quality improvement	The Kings Fund (2019) defines QI as "the systematic use of methods and tools to try to continuously improve the quality of care and outcomes for patients".

Abbreviations

HSE	Health Service Executive
MDT	Multidisciplinary team
MFI	Model for improvement
National QI Team	National Quality Improvement Team
PAR	Project assessment and review
PDSA	Plan, do, study, act
QI	Quality improvement
SPC Chart	Statistical process control chart
The Framework	The Framework for Improving Quality in Our Health Service

1. Introduction

The Framework for Improving Quality (HSE, 2016) was developed to influence and guide thinking, planning and delivery of care in the Irish health service. It supports people who wish to improve our services with a strategic approach to improving quality. You can use it at the frontline, management, board or national level.

One of the drivers is 'Use of Improvement Methods'. It applies tried and tested improvement methods to the process of improving quality. In this toolkit we share some of these tools and methods for improvement to help you and your team in your QI projects. The tools are designed to help you to develop a consistency in approach and a common understanding of improvement as you work together.



The Framework has six drivers of quality improvement. It is the combined force of all drivers that creates the environment for and acceleration of QI.

Figure 1: The six drivers of quality improvement. (Extract from the Framework for Improving Quality, 2016)

2. The Quality Improvement Toolkit

The National QI Team developed the QI toolkit as a resource to support people working on QI projects and initiatives in any health care setting.

2.1. How to use the toolkit?

This toolkit contains a number of tools which should make carrying out a project easier. The project map shares the four phases of the project starting out with a 'light bulb' moment right through to the sustainability plan. This is where you are embedding the improvements you have achieved.

It can sometimes be confusing to know how much detail or planning you need for your project. For ease of use we have defined projects under three project levels:

Level	Impact of projects and initiatives	Resources required (for example staff, funding or external expertise)
Level one:	Impact on one or more departments / services	Does not require additional resources outside the department/ service.
Level two:	Impact on more than one department / service.	Resources are required from more than one department/ service
Level three:	Organisational wide impact (apply to all services/units within the hospital or across a CHO e.g. Electronic Patient Record)	Needs extensive resources.

Figure 2: QI project levels

There are some tools that you will find helpful for all projects and some tools may be more applicable to your project than others. Level two projects will need more tools by the very nature of the size of the project. Your line manager or project sponsor will assist you with deciding which tools are appropriate for your project.

2.2. Who will help you?

Once you get approval to proceed with the project you may wish to identify a project sponsor.

A project sponsor is an advocate of a project. It is her/his job to help the project lead to get commitment from stakeholders. For smaller projects, the project sponsor can be your line manager/department head. For larger projects it may be a programme manager or a member of hospital or community healthcare organisation executive or management team.

The sponsor will help with communicating the progress of the project with key stakeholders and senior management from time to time. To do this, they will talk regularly with the project lead to stay updated about project progress. If the project needs extra resourcing the project sponsor can assist with a proposal to attain the same.

The project lead is the person with ownership for the delivery of the project. It may be led by one individual or the project lead could have a team of people working on the project.

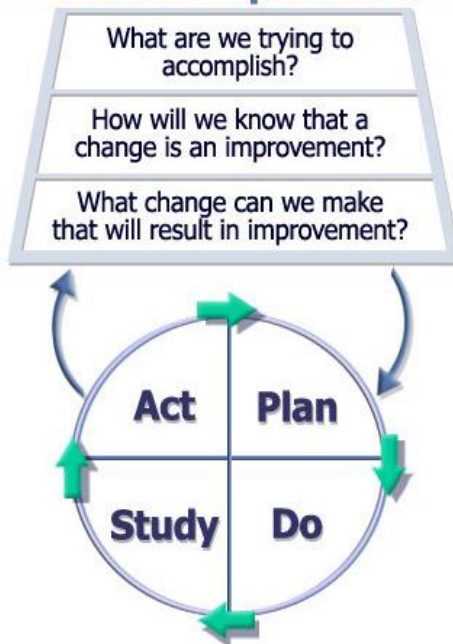
We advocate that you and your team set up your own **Community of Improvers** who can help you with your project. This community is a group of likeminded people interested in QI. They come together to share learning, share ideas for innovation and troubleshoot problems with improvement projects. People can come along to the group present their project, trouble shoot any issues/challenges or avail of coaching through the group.

2.3. Where can I access the National QI Team Quality Improvement Toolkit?

All tools and templates we have referenced are available on the website www.qualityimprovement.ie.

3. Introduction to the Model for Improvement

Model for Improvement



The Model for Improvement (MFI) is an improvement framework developed by Associates in Process Improvement based on W. Edwards Deming's body of work (Langley et al, 2009). It shares a structure for their principles of improvement which in summary are:

- Knowing why you need to improve
- Finding a way to get feedback to let you know if improvement is happening
- Developing a change that you think will result in improvement
- Testing a change before any attempt to implement
- Implementing a change

Figure 3: The model for improvement

The Model for Improvement tries to balance the desire and reward from taking immediate action with the wisdom of careful study. Throughout the tools in the toolkit you will see this referred to.

The model itself has two parts. The first has three questions:

1. What are we trying to accomplish?
2. What changes can we make that will result in improvement?
3. How will we know that a change is an improvement?

The second part is a cycle for learning and improvement called the Plan Do Study Act (PDSA) Cycle.

These two components together comprise a simple but powerful framework and roadmap for accomplishing processes, successful outcomes and system improvements.

The following section shares some additional information on the three questions which are fundamental to making improvements.

3.1. What are we trying to accomplish?

When we commence an improvement effort we need to know what direction we are heading in, in other words we need to define our aim. The aim of an improvement project should answer the first question of the Model for Improvement: What are we trying to accomplish? The more precise the aim, the better the chance the team will be successful.

The aim should pass the SMART test:

- **Specific:** we can describe clearly and precisely who will benefit and what will be achieved
- **Measurable:** we will be able to use data to tell us whether our aim has been achieved
- **Ambitious yet Achievable:** we have set a 'stretch' goal, i.e. a goal to reach for within a certain time. We have set a challenging goal, we are making explicit that the "status quo" is not an option. We don't know exactly how we are going to achieve the aim but we have the will, some ideas, and a means to execute it (Nolan, 2007).
- **Relevant:** our aim is meaningful to others besides ourselves including people who use and deliver our services including boards.
- **Time-bound:** we are clear about when we expect to achieve our aim.

Examples of good aims:

- ✓ Reduce the incidence of pressure ulcers by 50% in 3 months.
- ✓ Reduce surgical site infection (SSI) rates in the General Surgery Division by 50% within one year.

Top tip

The National QI Tool 4: Project Charter can help you and your team document and communicate your aims.

Figure 4: Examples of good aims

3.2. How will we know that a change is an improvement?

This question in the Model for Improvement relates to measurement and measures. Measures can help teams understand processes and systems of care. They can also provide a common basis for communication from 'bedside or office to boardroom'. Making changes to a system without answering this question can result in missed opportunities for learning and improvement.

Measurement is not the goal of improvement. Measures are often misused when they are not used as a basis for action or when used for judgment. In healthcare, we normally consider three levels of measurement to facilitate learning while improving a complex system.

Outcome measures are measures of the performance of the system under study. They tell us whether the changes we make are leading to actual improvement - if they are having the desired effect on our aim.

Process measures are measures of the workings of the system. They relate to the change(s) we make to achieve the outcome - they are measures of activities or steps in the process.

Balancing measures are used to understand the effect of changes on the broader system and to ensure that changes to improve one part of the system are not causing new problems in other parts.

Examples of outcome measures

- Number / % rate of pressure ulcers
- % surgical site infection rate
- Number of falls

Examples of process measures

- Achieve >95% compliance with SKIN bundle
- Achieve >95% on time antibiotic prophylaxis within 3 months.

Examples of balancing measures

- Length of stay / bed management
- Readmission rate

Figure 5: Examples of measures

3.3. What changes can we make that will result in improvement?

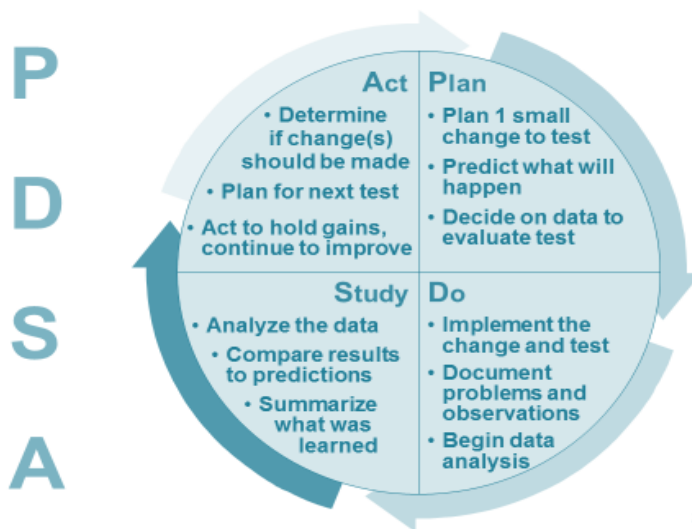
This question directs us to think about changes we could make that might help achieve our aim. Sometimes we have a firm hunch or theory about the changes we need to make to see improvement, but they may not always be obvious.

There are a number of tools and techniques that can be used to generate ideas for change for example:

- the Process Map of key processes associated with the aim to assist with seeing where improvements (changes) could be made, and
- the PDSA cycle -Testing for learning and Improvement.

Top tip

The National QI Tool 7. Process mapping and National QI Tool 12. Plan, do, study, act (PDSA) cycle template can help you generate ideas for change.

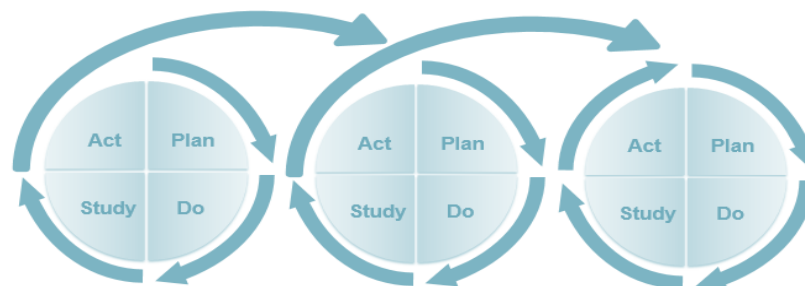


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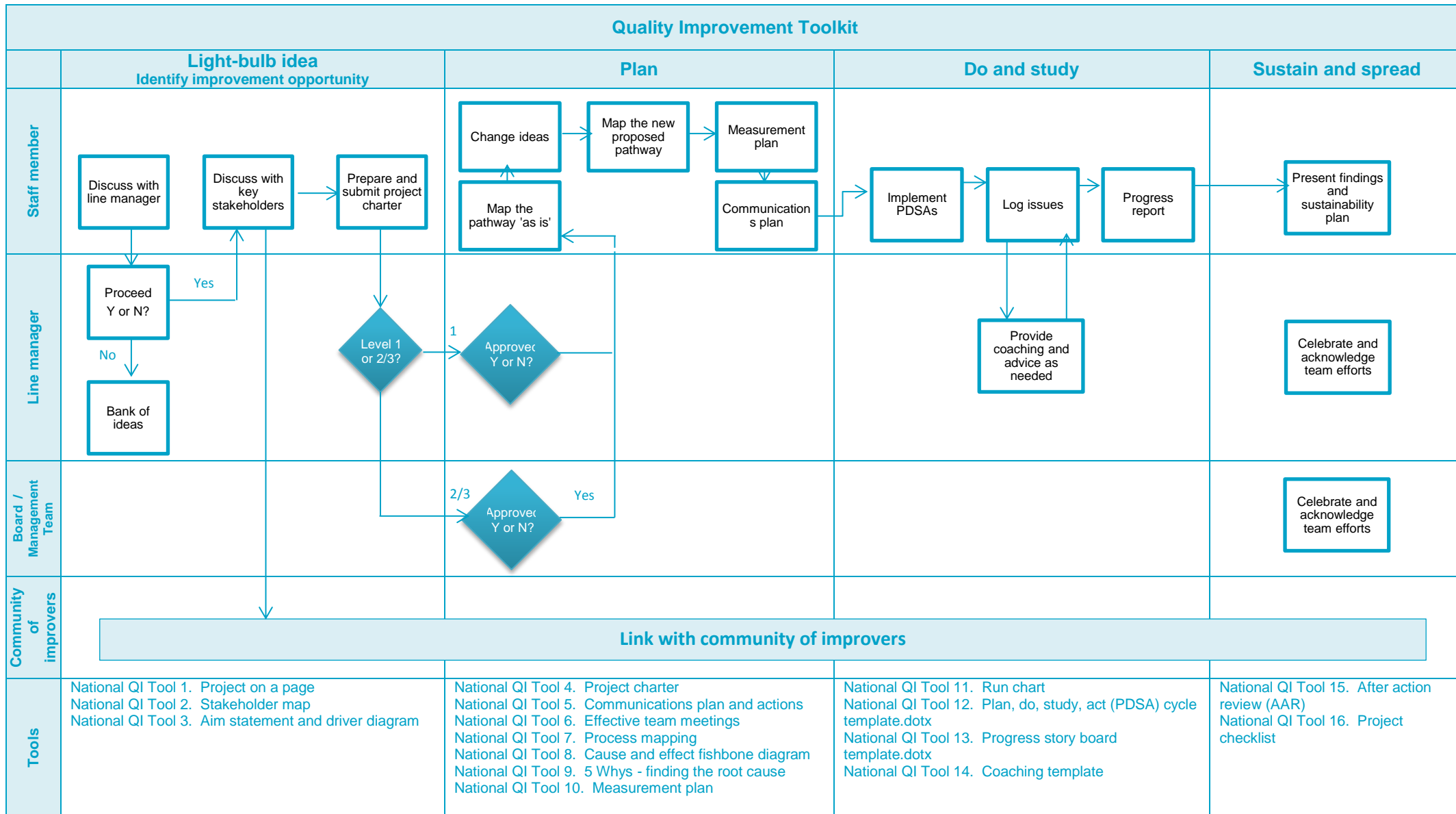
Figure 6: PDSA cycle

The second part of the Model for Improvement introduces the principle of testing changes on a small scale while monitoring the effect on outcome and process measures.

Multiple small testing cycles allows us to adapt an original idea before we implement it permanently. The method is the Plan-Do-Study-Act cycle. The cycle begins with a plan and ends with an action according to the learning gained from the Plan, Do, and Study phases of the cycle. This will then lead into another PDSA cycle to test the changes. This cycle continues until your improvement gains plateau or level out.



4. National QI Team quality improvement process flow



5. Quality improvement toolkit manager checklist for meeting with a member of staff

National QI Team Toolkit Overview			
Phases of a QI Initiative	Steps of the QI Process	QI Tools & Resources	Use in your project
Phase 1: Light bulb Idea	<ul style="list-style-type: none"> Identify an improvement opportunity Discuss with manager Formulate improvement aim and objectives 	<ul style="list-style-type: none"> National QI Tool 1. Project on a page National QI Tool 2. Stakeholder map National QI Tool 3. Aim statement and driver diagram 	
Phase 2: Planning	<ul style="list-style-type: none"> Discuss with stakeholders and form an improvement team and Develop a QI Charter Analyse the system to be improved mapping the pathway. Map the new pathway demonstrating improvement Generate change ideas Develop a Measurement plan 	<ul style="list-style-type: none"> National QI Tool 4. Project charter National QI Tool 5. Communications plan and actions National QI Tool 6. Effective team meetings National QI Tool 7. Process mapping National QI Tool 8. Cause and effect fishbone diagram National QI Tool 9. 5 Whys - finding the root cause National QI Tool 10. Measurement plan 	
Phase 3: Making it happen	<ul style="list-style-type: none"> Implement PDSAs, test and monitor changes Log and act on issues and Progress report Avail of coaching 	<ul style="list-style-type: none"> National QI Tool 11. Run chart National QI Tool 12. Plan, do, study, act (PDSA) cycle template.dotx National QI Tool 13. Progress story board template.dotx National QI Tool 14. Coaching template 	
Phase 4: Sustain and spread	<ul style="list-style-type: none"> Document QI effort and communicate results and lessons learned with all stakeholders 	<ul style="list-style-type: none"> National QI Tool 15. After action review (AAR) National QI Tool 16. Project checklist 	



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or on our website [qualityimprovement.ie](#)