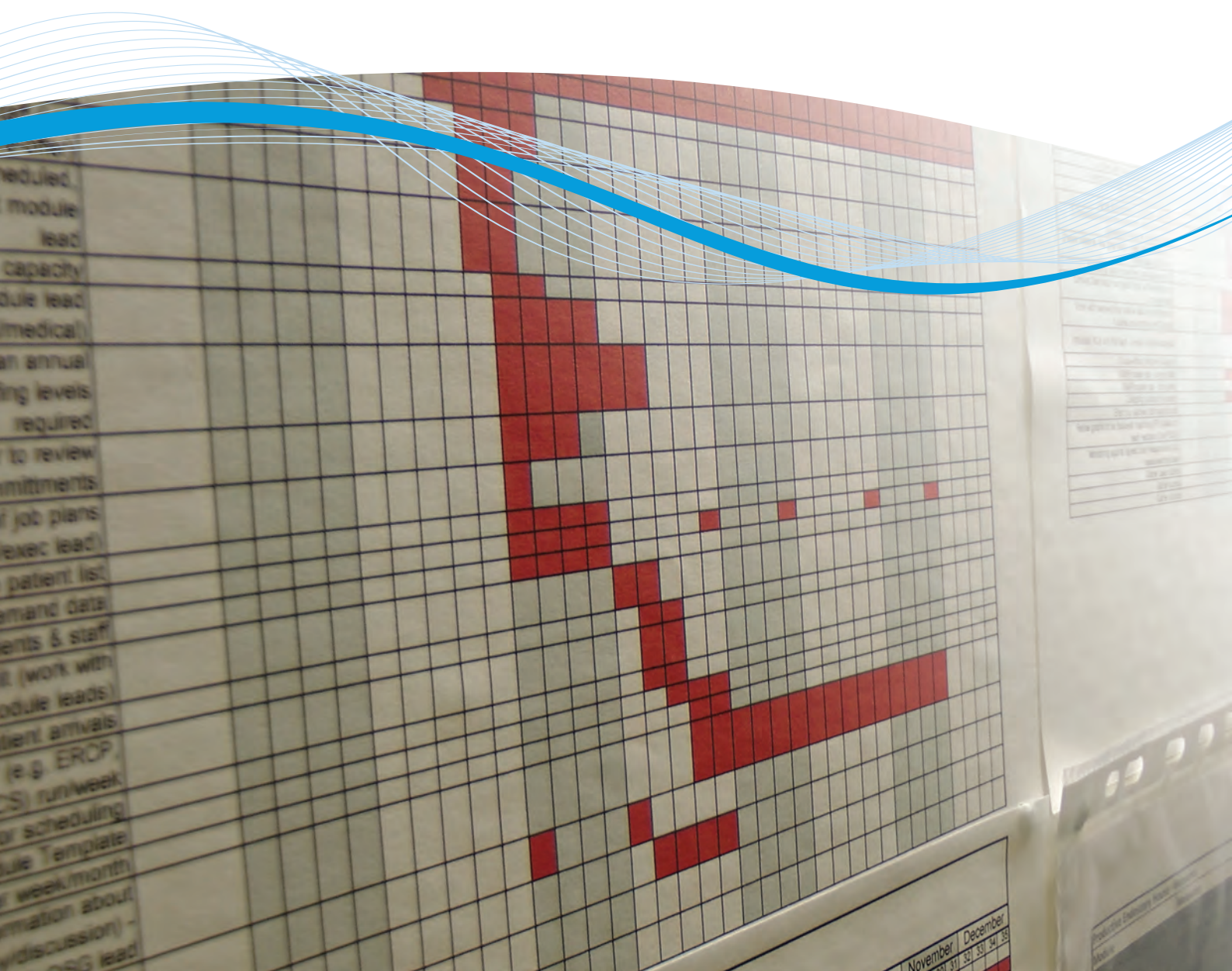


The Productive Endoscopy UnitTM *Building teams for safer care*

Knowing How We Are Doing

This document is for unit managers, endoscopy matrons, waiting list coordinators, endoscopy nursing staff, endoscopists, information analysts, administration staff and improvement leads



Purpose of this module

This module is intended to help you build your process for identifying, using and evaluating measures for your endoscopy service at each appropriate level in the organisation. It is a key foundation module within The Productive Endoscopy Unit programme and helps you to monitor improvements accurately, share them with the endoscopy unit team and wider around the Trust. Like all the elements of The Productive Endoscopy Unit it is designed to link in with the endoscopy Global Rating Scale (GRS) and enable you to develop and grow your endoscopy service.

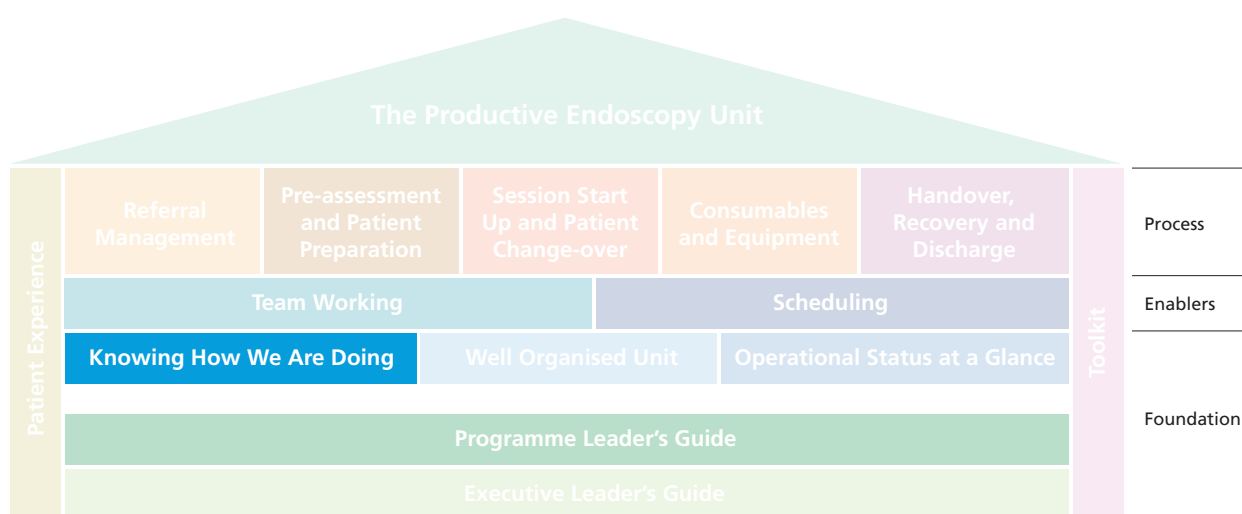
As a result of working through this module, you should find that measures will become an asset to your team and the driving force behind your improvements. You will be able to use data to inform your decision-making and to prove that the changes your team is making are having an impact on the service they provide.

Key performance indicators, targets, dashboards and reports may seem daunting or feel as if they are done just to 'feed the beast'. Staff can become tired of collecting data as they never get to see or use the information they help create, or to inform the way they work however, measurement does not have to be this way.

By implementing Knowing How We Are Doing you will introduce a balanced measurement system that is useful to endoscopy staff because it is relevant, close to real-time and can help teams see the impact of the changes they make.

Knowing How We Are Doing is often one of the most challenging modules to implement. It can initially require a great deal of investment in time and effort to produce and analyse the data. However, implementing this module is likely to be the most powerful thing you can do to set your endoscopy service on a course of long-term sustainable improvement.

These modules create the Productive Endoscopy Unit.



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1. What is Knowing How We Are Doing?

This module is an approach to help your team choose the right measures to track how your endoscopy unit is doing against the core objectives of The Productive Endoscopy Unit. It will help you and your team to see:

- That the changes you are making are helping you achieve your vision
- How the service and care you give in endoscopy contribute to your Trust's strategic aims.

Why do it?

- To demonstrate that the changes you are making really are improvements
- To understand how you are doing against the overall objectives of improving safety and reliability, patient experience and outcomes, value and efficiency, effective team-working and staff wellbeing
- To positively recognise the impact of changes made
- To promote the use of facts and data to drive continuous improvement
- To understand and resolve issues in a team environment
- To facilitate your GRS return and therefore help you to gain or maintain your JAG Accreditation
- To engage with management to help you achieve your goals

What it covers

- An explanation of measurement for improvement
- How to generate your team's measurement set
- How to hold a workshop to decide on the measures that are important to your team
- How the data will be collected, analysed and displayed
- How to display the measures set
- How to set up measure review systems to drive improvement
- How to understand what the data is telling you

What it does not cover

- Measurement policy e.g. 18 week clock stop definitions
- Other measures dictated by your organisation's policies
- Specific details about what should and should not be included on your *Knowing How We Are Doing board*
- Recommend specific actions to improve the performance of a particular measure

Learning objectives

After completing this module it is expected that your team will understand the following:

- Why measurement is important
- How measurement drives better decision-making
- How to use data to drive continuous improvement (the seven step model)
- Engaging staff in creating and reviewing a set of balanced measures which work for you and your endoscopy team (through the measures workshop)
- How to set up a Knowing How We Are Doing board
- How to establish an effective progress review system.

Module roles and responsibilities

You will need to brief your team to ensure all members are fully aware of their role and why the team is implementing this module. It can sometimes be a good idea to bring in trust leaders to help in this briefing, such as the medical director and/or executive lead.

To help you set up briefings we have outlined the roles and responsibilities for the different staff groups in your team in the following table. It can be a real advantage to hold these briefings in person and individually, instead of in large groups.

Focus on the opinion leaders in each group and target them as they can help you to influence their peers; this is vital to ensure broad representation at the measures workshop and ongoing involvement and support for the programme.

“

The first step is knowing where you are and where you want to be.”

Ed Seward,

Clinical Lead and National Clinical Associate, Whipps Cross Hospital, Barts Health NHS Trust

Endoscopy staff in general

- Willing participants in the new techniques
- Take an active part in discussing the performance of the unit
- Suggest new ideas to the issues exposed
- Take away improvement actions and investigate issues further

Team leader

- Take the lead for implementing a visual unit-based measurement system
- Communicate clearly the goals and objectives to be achieved
- Encourage and support the endoscopy team throughout the implementation
- Lead endoscopy performance review meetings
- Keep the focus on positive opportunities for improvement

Endoscopists

- Support and encourage the team leaders during implementation by providing time, space and coaching
- Take open and active interest in the team's progress
- Review and audit the measures board on a regular basis
- Monitor and assess skill gaps made apparent through implementing this module

Unit manager

- Support and encourage the team leaders during implementation by providing time, space and coaching
- Take open and active interest in the team's progress
- Review and audit the measures board on a regular basis
- Monitor and assess skill gaps made apparent through implementing this module

Executive leader

- Escalate organisation wide issues to the appropriate forum, allowing the team to focus on issues within the scope of the programme
- Benchmark data coming from other units and challenge variation
- Ensure analytical support is in place
- Take an active interest in the measures set

Programme leader / project facilitator and implementation team

- Assist the team leader and team by providing guidance and extra support in the initial stages
- Use wider experience to point (but not lead) the team in the right direction
- Organise and lead the measures workshops

Information team

- Commit sufficient time and resource to provide the programme team with timely data
- Work with the team to find ways to display data graphically so that it can be easily understood

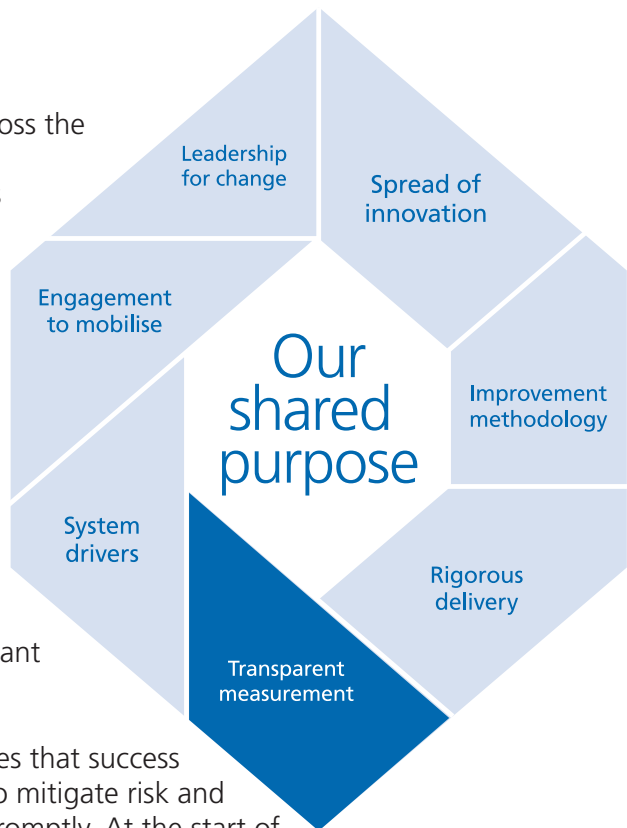
The NHS Change Model

The NHS Change Model brings together collective improvement knowledge and experience from across the NHS. It has been developed with hundreds of our senior leaders, clinicians, commissioners, providers and improvement leaders. Change can occur by applying all eight components.

Measuring the outcome of change continuously and transparently is crucial to provide evidence that the change is happening and the desired results are being achieved. This component covers the requirement to have effective measurement of outcomes and outputs, how measurement works, including the difference between measurement for improvement, for judgement and for research. It also covers the need to identify and collate relevant data.

Using appropriate measurement techniques ensures that success can be celebrated, remedial action can be taken to mitigate risk and the unforeseen consequences can be dealt with promptly. At the start of any change it is important to plan for expected benefits and return on investment. As the change progresses, benefits realised must be measured to demonstrate the effectiveness of the change. Making data available to the public increases patient power and choice and, ethically, it is the right thing to do. Comparative data, in particular, is a key driver for change.

See <http://www.england.nhs.uk/sustainableimprovement/change-model>



How does The Productive Endoscopy Unit fit with the Global Rating Scale and JAG Accreditation?

The introduction of the Global Rating Scale was arguably the single biggest force for improving the quality of endoscopy in the UK in recent times. The GRS is a web-based assessment tool that aims to provide an endoscopy service with a clear idea as to how well they provide a patient centred service. The assessment is divided into four domains: quality and safety (Clinical Quality); customer care (Quality of Patient Experience); Workforce and Training. Each domain is split into items that focus on a particular area such as privacy or timeliness in the quality of the patient experience domain, and each item is characterised by a series of descriptors that allows the unit to unambiguously declare at what stage they are at in delivering a particular item. Objective measures underpin each item to allow both external and internal assessment.

Endoscopy units in the UK are regularly assessed by the JAG (Joint Advisory Group) on Gastrointestinal Endoscopy, the body responsible for upholding the quality of endoscopy at a national level. The JAG operates within the Clinical Standards Department of the Royal College of Physicians. The JAG's mission as an organisation is to provide UK wide support for the whole of the endoscopy workforce to ensure they have the skills, resources and motivation necessary to provide the highest quality, timely, patient-centred care.

The JAG provides clear and detailed standards, and frameworks within which to reach the acceptable standards for competence in endoscopic procedures and for endoscopy units for certification, accreditation and re-accreditation. The Productive Endoscopy Unit modules aim to assist in both the achievement of the GRS standards and JAG accreditation, as well as help to achieve improvements across the four domains of:

- **Quality/safety** e.g. reduced defects, identifying potential errors before they occur
- **Timeliness/delivery** e.g. improved turnaround times, reduced waiting
- **Cost/value for money** e.g. removal of waste, reduction in inventory
- **Morale/staff experience/patient outcomes** e.g. reduced overburdening for staff, improved patient experience.

Knowing How We Are Doing allows for the collection and display of data that serves the aims of the GRS return, JAG Accreditation and ongoing service improvement. In addition, if you have already used the GRS Planning and Productivity Tool (PPAT) to inform you of the areas you need to address, this module can help you with data collection tools and techniques you can use to focus improvement efforts, particularly in the areas of performance, productivity and capacity and demand.

More information can be found at www.thejag.org.uk or in The Productive Endoscopy Unit Toolkit where you can find the documents 'JAG Accreditation Standards and Evidence Requirements' and 'JAG Accreditation online Checklist'

Measurement for improvement

Before developing your set of measures it is important to understand what measurement for improvement is. The following section gives an overview of measurement for improvement and why it is so important.

How do we know a change is an improvement?

The Productive Endoscopy Unit involves you and your team making many changes to the way you currently work. To demonstrate if the changes you are making really are improvements, you need to be able to measure their impact as all improvement will require change, but not all change will result in improvement.

Measurement can show you a number of important pieces of information:

- How well your current processes are working and what could be improved
 - Whether you have achieved your goal
 - How much variation is in your process
 - Whether a small change is an improvement
 - Whether the changes are being sustained.
-

“

You need data to evidence an improvement - ‘it feels better’ or ‘I think it is better’ is just not enough!

”

Susie Peachey,

National Improvement Lead, NHS Improving Quality

Driver diagrams

Throughout the programme your endoscopy team will spend a lot of time and energy, testing and implementing changes that they may perceive to have only a small impact. It is understandable that your team will want to look for the 'big win': the one change that will ensure they achieve their overall vision.

Driver diagrams are helpful in showing how the work staff are doing not only links to the organisation's strategic aims but how all of the smaller changes add up to achieve it. This will help motivate teams by demonstrating the importance of their role in the overall programme.

Driver diagrams display your changes in three ways.

- 1. Interventions:** these are the practical things you will do on a day to day basis. They are the type of improvements that your teams will be making with the help of the modules. For example, introducing the amended World Health Organisation (WHO) checklist.
- 2. Drivers:** if the team interventions are successful this is what your endoscopy management expect the result will be. For example, if the WHO checklist is used consistently, mistakes will be avoided.
- 3. Aims:** once you have created improvements through interventions within the service, creating improvement in the driver, collectively these will deliver a significant improvement in the overall programme aims and Trusts objectives.

Safety and reliability driver diagram

The driver diagram demonstrates how you can think about and decide what changes you may want to test.



- S0 Overall glitch count
- S1 Complaints/clinical incidents
- 1 Number 'huddles'/brief-debrief (or percentage huddles)
- 2 Number time-out
- 3 Number or percentage adverse events discussed at huddle/team meeting/user group
- 4 Compliance with mandatory training/appraisals/GRS standards
- 5 Percentage use of WHO checklist
- 6 Process, VSM and spaghetti maps completed
- 7 Percentage caecal intubation rates
- 8 Percentage use of reversal agents
- 9 Percentage porter attendance at huddle
- 10 Monitor 'wait time on unit'
- 11 Percentage correct kit to hand

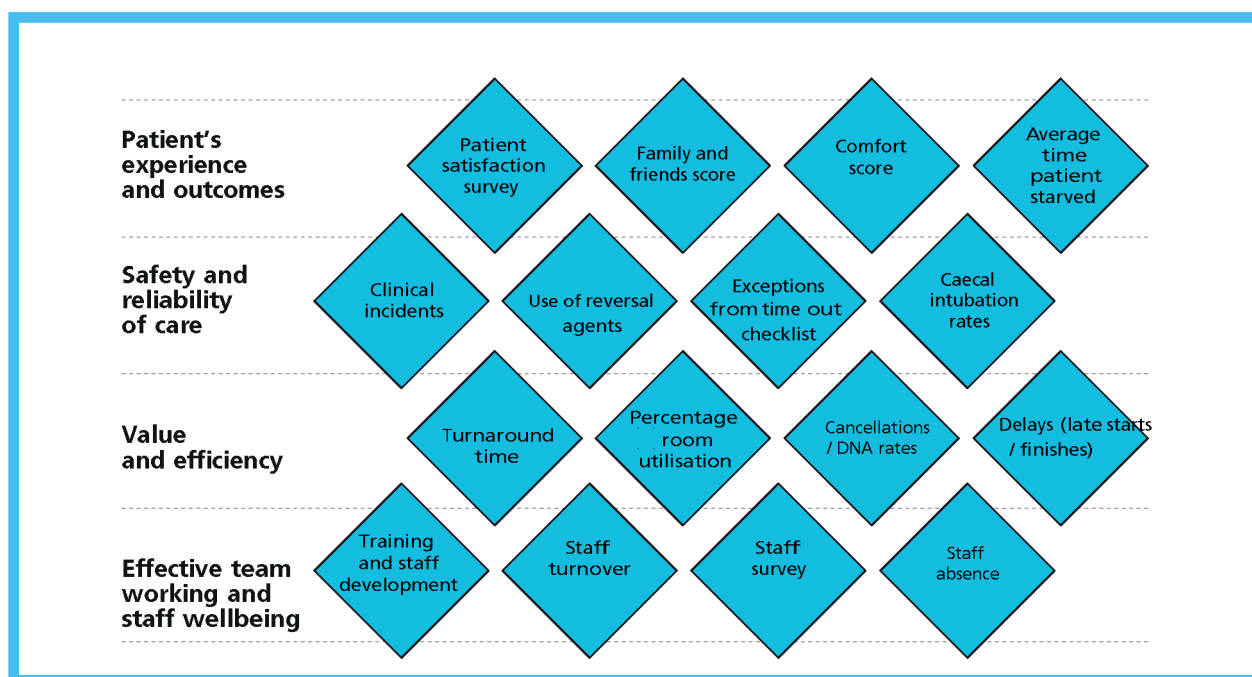
Balanced set of measures

By implementing *Knowing How We Are Doing* you will introduce measurement systems that are timely, accurate and most importantly, useful to you and the unit staff. The measures will help you understand your unit's performance and make decisions on what to do to improve.

To help you further in the decision-making process it is useful to group similar measures into the four domains: patient's experience and outcomes, safety and reliability of care, value and efficiency, and team work and staff wellbeing. This is presented as a 'balanced set of measures'.

We recommend that you select at least one measure from each of these four domains.

Example set of balanced measures



The different groups within your unit can use balanced measures. Although they should use the same four domains, the number and type of measures will be different to reflect their different needs.

- 1. Executive:** this set of measures usually relates to the overall aim; they are 'strategic' and help management understand how endoscopy performance contributes to the overall vision for the Trust.
- 2. Operational:** the operational set will include more in-depth measures than the executive set of measures as it will be monitoring the performance across a range of different activities.
- 3. Team:** this will help endoscopy teams monitor the performance of their activity based changes.

This module, focuses on the operational set of measures which are displayed on the Knowing How We Are Doing board.

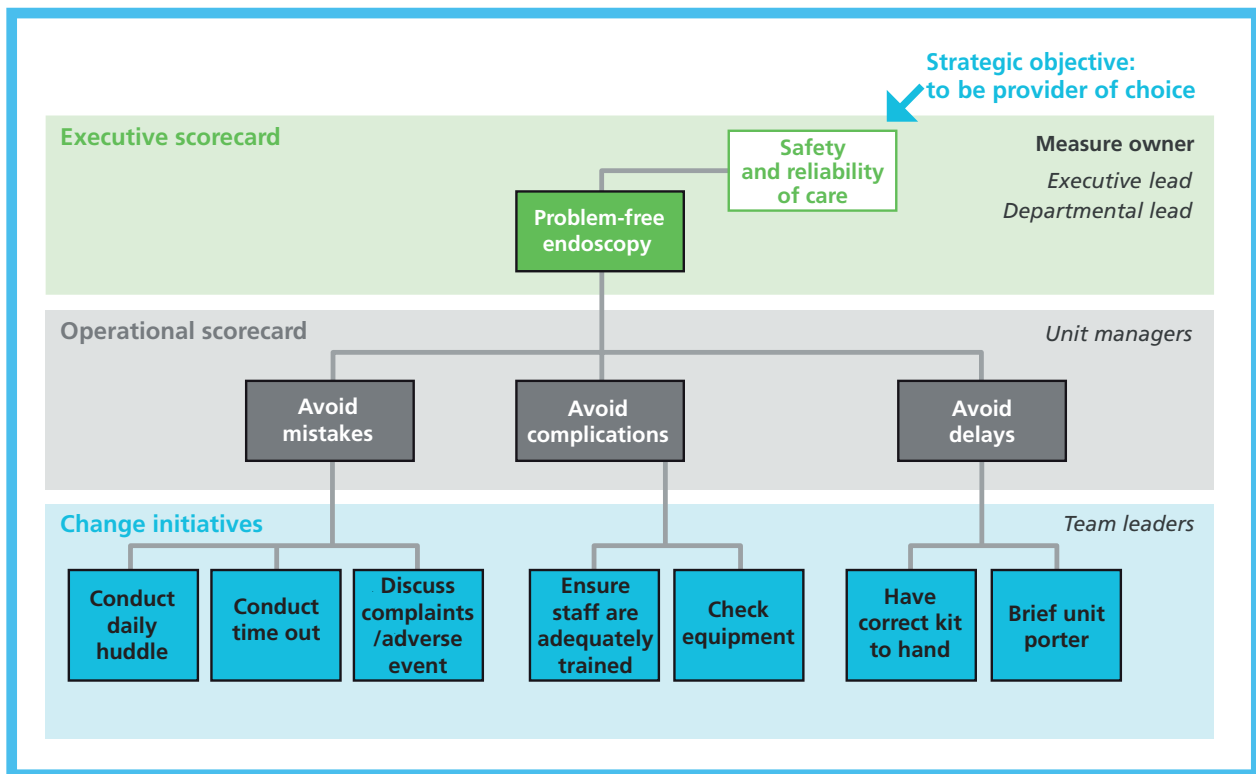
“

Make sure how the data is collected is completely transparent to everyone. You have to go to some lengths to defend the validity of your data.”

Ed Seward,

Clinical Lead and National Clinical Associate, Whipps Cross Hospital, Barts Health NHS Trust





Tip: Key things to remember when starting to measure

- Seek usefulness not perfection – measurement should be used to focus and speed improvement up not to slow things down
- Measure the minimum. Only collect what you need; there may be other information out there but the aim is to keep things as simple as possible
- Remember the goal is improvement and not a new measurement system. The data does have to be robust enough to deflect criticism but do not get side-tracked and focus mainly on improving data quality
- Aim to make measurement part of the daily routine. Where possible use forms or charts that are already routinely used, this minimises the burden on staff
- Match what is measured to GRS requirements. These are often mandatory but also are usually sensible choices of measures to best assess and improve your service
- Make sure the data collection is easy and quick to complete. The explanation given to staff about why we are collecting the measure is very important so that they can understand and engage in the activity
- If a member of the team is resistant or finding it difficult to understand the measurement aspects of the programme, try explaining it in terms of evidence-based practice. You are doing nothing more complicated than collecting data to see how you are doing and whether the changes you have made have been beneficial

“

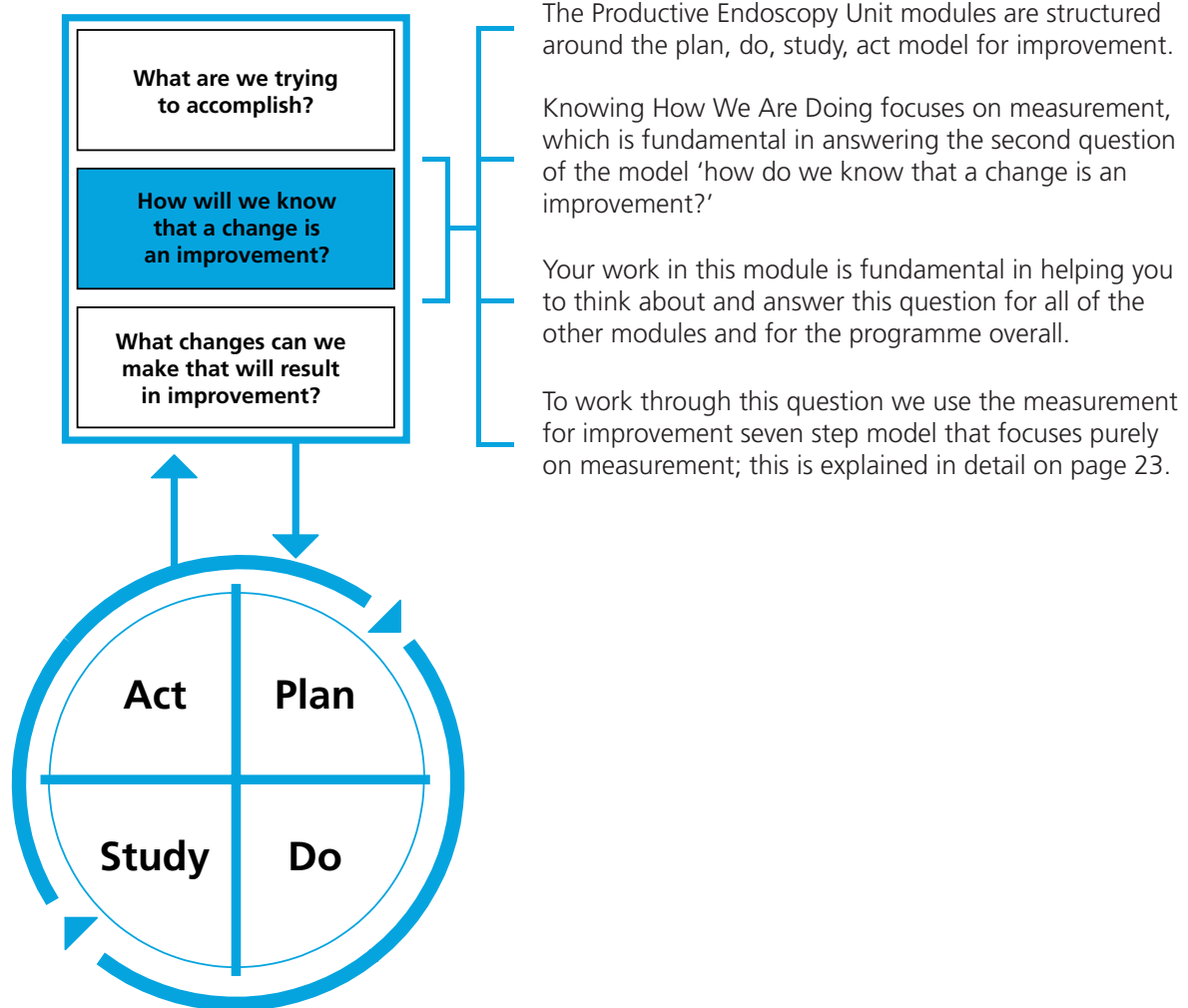
Where you are going and how you are going to get there starts with the first step of being honest about where you currently are!

Transparency is the key ”

Lisa Smith,

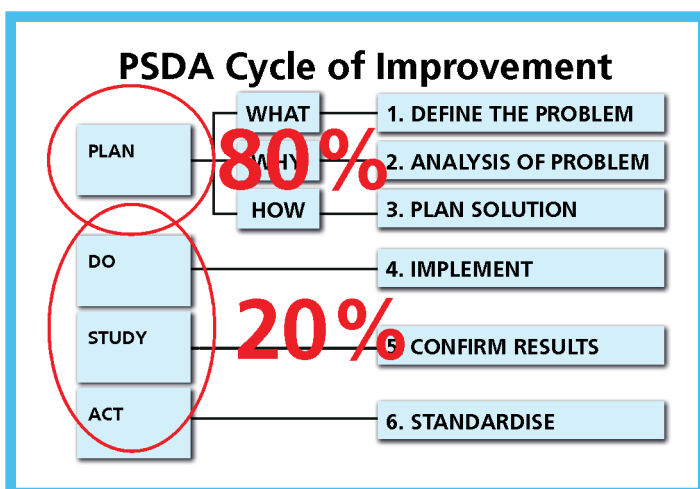
National Improvement Lead, NHS Improving Quality

The Model for Improvement



A3 thinking

Simply put, A3 thinking is a structured way of thinking deeply about an issue or problem, which follows a series of standard steps (rigorous application of Plan Do Study Act (PDSA) cycle) to produce a concise output as a condensed document or A3 Report (11 x 17 inch paper).



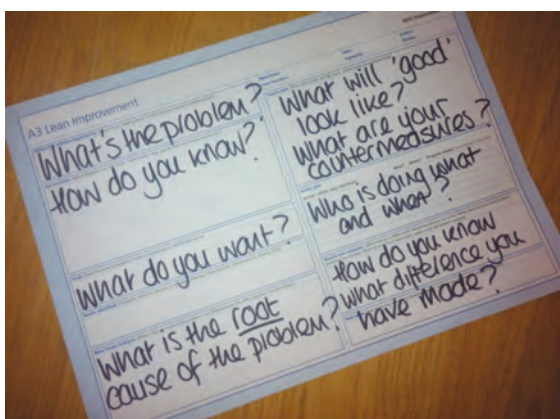
This method of application of PDSA helps to move teams from intuitive problem solving, quick fixes and work-arounds, to understanding the root cause (what the problem REALLY is) and developing countermeasures that are staff and customer focussed. The A3 report will serve as a simple record of your PDSA cycles and the changes made as a result - it is easy to forget where you started from once you are on your continuous improvement journey. A3 templates and further information can be found in The Productive Endoscopy Unit Toolkit.

A3 Format

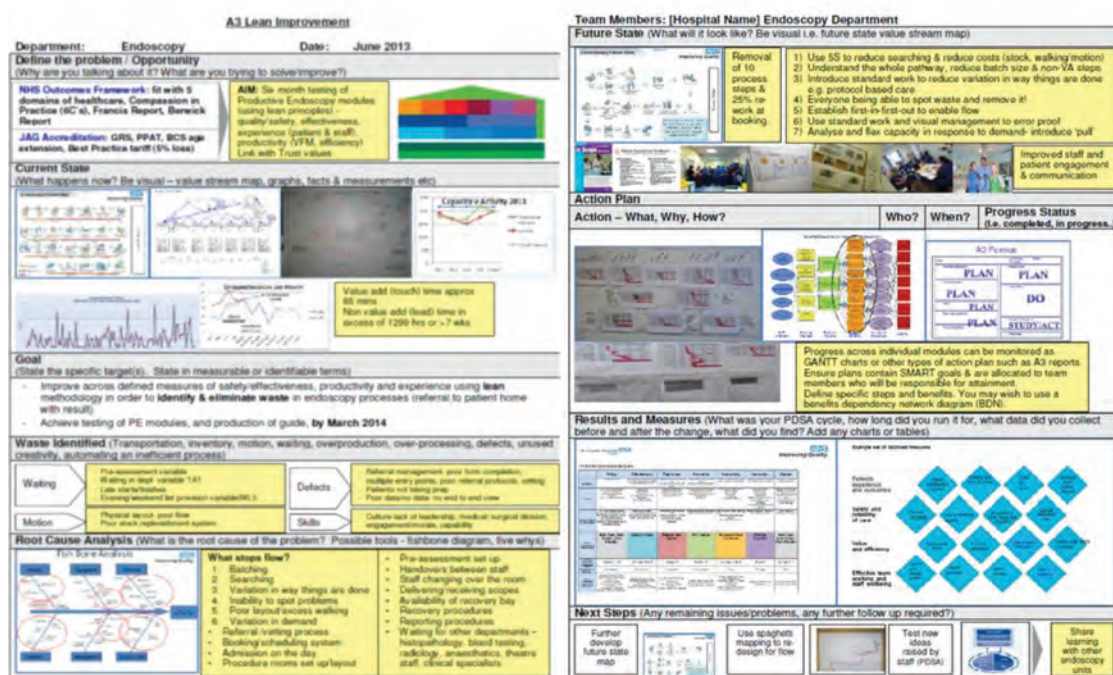
Title:	Version:	Date:
Problem statement:	Future State:	
Current status:	Action Plan:	
Goal:	Results & Measures:	
Root cause analysis:	Next steps:	
Waste Identified:		

The form is divided into two main sections. The left section is labeled 'PLAN' and contains fields for Problem statement, Current status, Goal, Root cause analysis, and Waste Identified. The right section is labeled 'DO' and contains fields for Future State, Action Plan, Results & Measures, and Next steps.

TOP TIP: Remember to use the PDSA cycle at each section of the A3 to really understand and think deeply about your problem and possible solutions.



Example completed A3 - with measures and BDN



Benefits Dependency Network (BDN) Integrates Benefits Realisation with Change Management by using a diagrammatic representation of drivers, objectives, enablers and changes required.

To find out more on BDN refer to The Productive Endoscopy Unit Toolkit.

“

Make sure your data is defensible.”

Ed Seward,

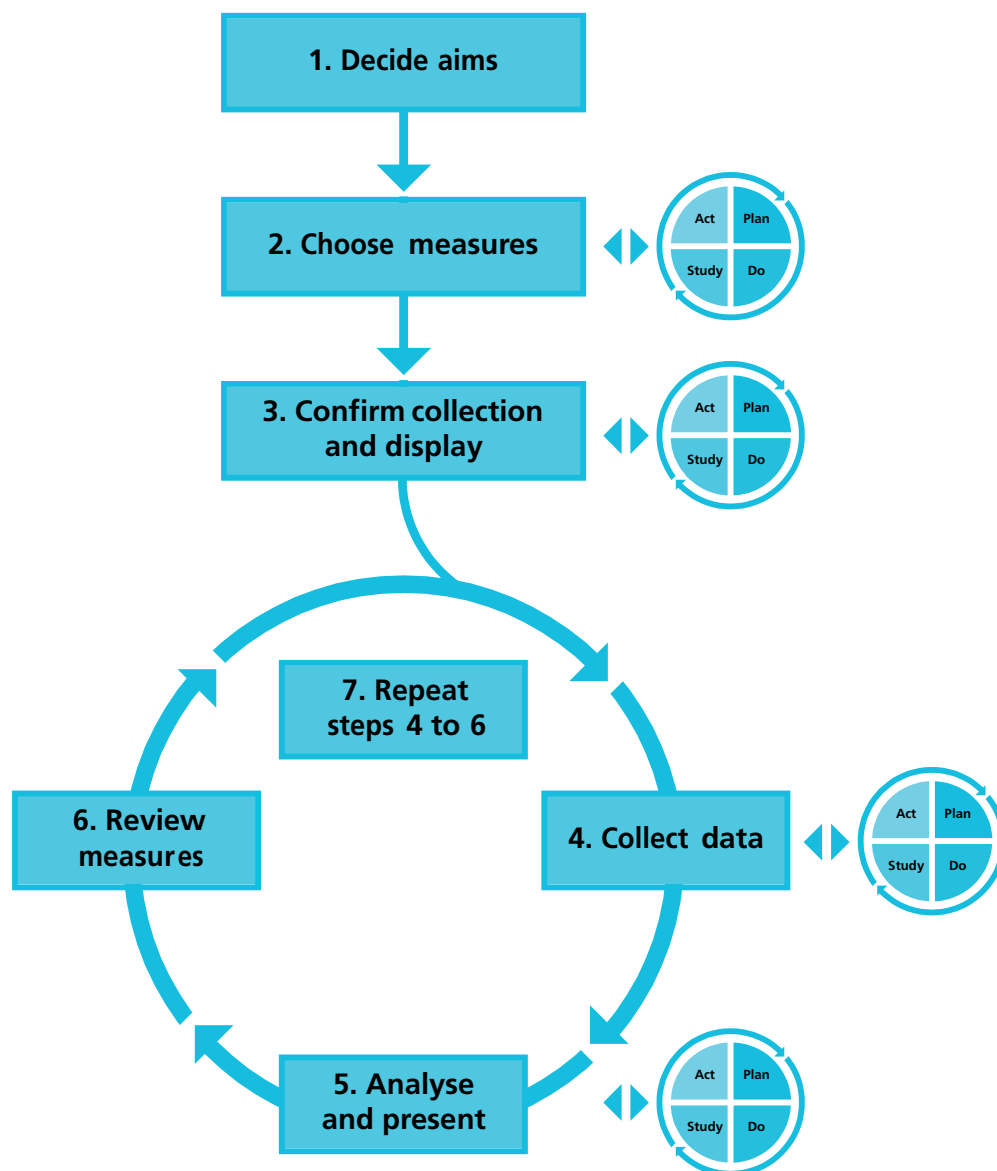
Clinical Lead and National Clinical Associate,
Whipps Cross Hospital, Barts Health NHS Trust



2. Introduction to the seven step model

How will you do it in your endoscopy unit?

The seven step model



1. Decide aims

- Create a vision at the visioning workshop
- This is what you are aiming to achieve. This may be a programme aim or an intervention aim

2. Choose measures

You need to decide how to measure whether you have achieved your aim. Run a measures workshop to:

- Explore principles of a balanced set of measures
- Explore principles of driver diagrams
- Explore your endoscopy vision against measures and information system capability
- Identify a new balanced set of measures
- Identify and agree people required to take the system forward.

3. Confirm collection and display

Using the outputs from the measures workshop complete a measures checklist for each measure and confirm:

- The measure definition
- The collection and analysis process
- Length and frequency of reviews
- Set SMART goals
- Decide on size, location and layout of display board
- Develop prototype board and trial it.

4. Collect data

This takes time and effort. It can become frustrating but the second data collection will be easier.

- Collect your first set of data, this will act as your baseline. You can then measure your improvements against this

5. Analyse and present

- Decide how you will analyse your data and the best way to present to the team
- Update your board

6. Review measures

Run a measures review session to see what the data/graphs are telling you, so as to:

- Study initial impact of actions on data trends
- Review data availability
- Take action on what the data tells you
- Evaluate effectiveness of review system and improve.

7. Keep going - repeat steps 4 to 6

Keep collecting, analysing and reviewing your measures until you achieve your goals. Put useful measures into routine practice in your department.

Step 1 – Decide your aims

Create an endoscopy service vision

As part of the Programme Leader's Guide you will have run a visioning session with the multidisciplinary team and executive lead, and created a vision to reflect what you want to achieve through The Productive Endoscopy Unit programme.

This vision, developed together with the endoscopy team, represents your ultimate goal but how will you know when you have achieved it?

For a vision to be useful it needs to be measurable, rather than simply words. It should provide a top-level measurement reference for the programme, enabling you to track progress against the goals agreed with the team. How you achieve your vision will be assessed by measures using the key aims of the programme:

- Safety and quality (reliability of care) e.g. reducing avoidable harm
- Effectiveness e.g. right first time, every time
- Experience e.g. of users and staff
- Productivity (value for money, efficiency) e.g. removal of waste.



If you do not measure how can you prove, to yourselves and others, that you have achieved your vision and the improvements have been realised?

This module helps you to transform your vision into measures and shows you how to develop a review system to help your team track their progress towards achieving it.

Decide your aims – milestone checklist

Move onto **Step 2 – Choose measures – the measures workshop** only if you have completed **all** of the items on this checklist

Checklist	Completed?
Held a visioning session	
Developed a clear shared vision for what you want to achieve through the programme	
Identified potential barriers to the vision	
Raised awareness of the programme	
Identified champions to actively support the programme	
Briefed the team to make sure they are aware of their role and why the team is doing this module	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Step 2 – Choose measures: the measures workshop

It is essential that you start collecting data as early as possible in your programme, so the sooner you can hold this workshop the better.

The measures workshop is the second large group event of The Productive Endoscopy Unit programme. It will provide an introduction to measures covering what they are and why they are needed. This workshop builds on the outputs from the visioning session and as such, could follow on directly from this session or be built into the visioning workshop, as long as all the elements of both workshops are covered sufficiently and the outputs are achieved (please see Programme Leader's Guide for more information).

As a group, the participants will choose how to measure each element of their vision. This will allow you to see whether the improvements you are making are delivering the outcomes required. It is not strictly necessary to have executive leads present, since it is the endoscopy team themselves who will develop the measures for the programme.

The workshop will likely take approximately one to three hours. It is important that notice of the workshop is given at least six weeks before.

Aim

To create a set of measures, linked explicitly to interventions, which can be tracked over time to help you and your team transform your endoscopy service.

To do this over the course of the workshop your team will take your endoscopy service vision and create a driver diagram for each of the four domains of The Productive Endoscopy Unit. This will identify the interventions that need to happen to reach your vision, and what measures are required for each intervention to ensure we know that the desired effect is happening.

Objectives

- Familiarise participants with the benefits and important concepts of 'measuring' in order to know how we are doing
- Identify programme measures for each component of the vision
- To further engage the wider endoscopy team, particularly with the measurement element

“

Our problem is that we have about a dozen IT systems that don't speak to each other! ”

Koralie Bird,
Portsmouth Hospitals NHS Trust, Endoscopy Unit

Key steps in planning your workshop - set the date

- Book the event early – remember clinicians will need a minimum of six weeks notice to be released from clinical sessions
- Check the availability of key people you feel are essential to the day before deciding on the date
- Once agreed ask people to hold the date in their diaries pending a more formal invitation
- You may have to make a judgement call if availability of some of the identified participants is pushing the date of the workshop back too far

Identify speakers and facilitator

Speakers

- Getting executive level sponsorship for your event is essential and will raise its profile. Ask your chief executive, executive leader or clinical director if they can open the workshop

Facilitators

- Identify a facilitator who will present and lead the workshop. The person should be a good communicator and be able to explain the concepts and importance of measurement to the group, in addition to managing the workshop and ensuring that all the outputs are achieved
- This could be you, as the programme leader. However, if you wish to participate in the sessions yourself ask someone else
- Think about asking someone from your service development department, or perhaps someone who has been involved in a different Productive programme within your organisation such as The Productive Operating Theatre

Identify participants

Decide who will participate in the workshop. We suggest getting a multidisciplinary team of 15 – 20 people made up of the following roles:

- At least one executive director (essential)
- Porters
- Healthcare assistants
- Information analysts
- Nurses
- Front desk staff
- Endoscopists
- Unit manager.

Further attendees who would be a great advantage:

- Operations director
- Director of information.

TOP TIP: It is essential that the multidisciplinary team attending the workshop includes medical and surgical endoscopists and consultants.

Invite the workshop attendees and communicate the aims

Prepare staff for the measures workshop

What works best?

- Face-to-face communication
- Endoscopy unit meetings / morning huddle
- Get senior support: tell them – this really is important to our staff, to our Trust and its patients and it should be to you
- Provide material to take away from the module – something that staff can digest and then respond to

What does not really work

- Emailed invites alone
- Lack of context – not setting the scene
- Making it mandatory – try to generate enthusiasm rather than compulsion

Things you may include in your invite/discussions

- What you are trying to achieve.
- What's in it for staff, patients etc?
- How this will move the endoscopy unit forward?
- What staff need to do:
 - Contribute, consider, come up with ideas and take on action
 - Proposed agenda and timing.

Book the venue, equipment and refreshments

When booking the venue make sure you have plenty of room for the participants to break out into smaller working groups that will not disturb each other when working.

- Lay the room out so that you have four tables for the groups to work around
- If possible get a venue off-site as this will help the participants to focus and not be distracted by the day to day pressures of operational life
- Check rules about sticking things on the walls
- Arrange for the following equipment to be available:
 - Projector
 - Laptop/computer
 - Screen or suitable surface to project on to
 - Flipcharts, pens and sticky notes.
- Arrange refreshments for the participants to have during the session

TOP TIP:
Communicating to your participants what is expected from them is essential in getting their support before they walk through the door.

Pre-work

Trust policy and strategy

To help your team understand your Trust's current thinking around measurement it is useful to collect the following documents (they may be called different names) before the workshop:

- Trust policy on displaying information
- Trust information strategy
- Trust performance management strategy
- Your most recent GRS return and PPAT report

Review driver diagrams and suggested measures

Familiarise yourself with the driver diagrams in appendix 1 and the suggested measures in appendix 2. Think about which ones could fit with your vision. Consider other information that may not be on the list.

Review what you currently do

Reviewing what you currently do will give an insight into what currently exists which could be used as part of your Knowing How We Are Doing measures. Your unit will (or certainly should!) already collect a considerable amount of data for the GRS return. This will include:

- 2.1 Adverse events within the department
- 4.1 Key quality indicators for endoscopic procedures e.g. caecal intubation rate, ulcer follow up
- 5.15 Review of endoscopy related mortality
- 9.6 DNA rate
- 12.2 Patient complaints
- 18.10 Training feedback
- 19.7 Evaluation of trainer expertise

However, this need not restrict what you want to measure. Ask the following questions about the information you currently use.

What do you currently measure?	<ul style="list-style-type: none"> • Is there any performance data displayed in the unit?
Why do you measure it?	<ul style="list-style-type: none"> • Have you been asked to measure these? • Was there a problem in this area? • Is the information displayed for all the staff to see?
What do you do with it?	<ul style="list-style-type: none"> • Do you use the data to help you figure out why something has gone wrong? • Do you keep the old information? • Is it collected by endoscopy staff?
Where does the data come from?	<ul style="list-style-type: none"> • Is it collected by the trust and handed to the unit manager? • What other sources can you find?
Who is responsible for it?	<ul style="list-style-type: none"> • Who collects it? • Who displays it? • Who is responsible for good or bad performance?

Make the workshop your own

Suggested slides, including speaker and facilitator's notes for this workshop form part of The Productive Endoscopy Unit Toolkit.

Before the workshop familiarise yourself with this material and customise your workshop pack. Use the speaker notes that accompany the slides as a general guide but tailor them to reflect your own style and the context of your organisation. Your team will expect to hear you not us and your own words will be easier to remember.

TOP TIP: Your team will expect to see the vision they created as part of the Programme Leader's module represented in the measures workshop. In addition, the Trust vision and values should also be taken into account.

Preparing the room

- Think about the layout of the room because you will need four tables so that four groups can work on the four driver diagrams
- Set up your laptop projector and screen and make sure everyone can see the screen
- Display large copies of the following documents on the wall and have copies available on each table:
 - Outputs from the visioning/introduction session
 - The Productive Endoscopy Unit modules as represented in the house structure at the beginning of this module
 - The four measures of improvement:
 - **Safety/quality** e.g. reduced defects, identifying potential errors before they occur
 - **Timeliness/delivery** e.g. improved turnaround times, reduced waiting
 - **Cost/value for money** e.g. removal of waste, reduction in inventory
 - **Morale/staff experience/patient outcomes.**
- Print out copies of the driver diagrams (available in Appendix 1 and as part of The Productive Endoscopy Unit Toolkit) and have copies available on each table. These should be as big as possible, at least A3, as the teams will be writing their ideas on them
- Get printed copies of the slides to hand out to each delegate to take away at the end. This is very important so they can reflect on the session and discuss it with people who were unable to attend

Capturing the outputs

Make sure you collect all of the outputs from the workshop including the customised driver diagrams, completed or partly completed measures checklists and action plan.

All of the ideas generated should be reviewed in detail as part of *confirm collection* and *display*, to decide what is both practical and valuable and therefore which measures you wish to test first.

Make sure you have identified and agreed people to take the process forward.

Choose measures – milestone checklist

Move onto **Step 3 – Confirm collection and display** only if you have completed **all** of the items on this checklist

Checklist	Completed?
Identified executive and analytical support for the module	
Explored and understood the principles of a set of balanced measures	
Explored and understood the principles of driver diagrams	
Understood the importance of measurement for improvement	
Gathered and reviewed data that is currently collected and used	
Reviewed the suggested measures	
Arranged and held the measures workshop	
Identified measures to review	
Identified and agreed people to take the system forward	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Ideas that have worked

Set of balanced measures

By displaying measures in staff areas, it becomes easy for them to follow the links between the processes they have control over, and the influence this has on outcome measures reported at Trust level.

Split into several sections, each section represents a programme aim including:

- **Safety** e.g. reducing avoidable harm
- **Effectiveness** e.g. right first time, every time
- **Experience** e.g. of users and staff
- **Productivity** e.g. removal of waste.

As well as additional measures to link to the NHS Outcomes Framework, Trust Values and the 6C's:

- Prevention
- Innovation
- Spread.

“

When we first put the board up I had angry emails from consultant colleagues - and I thought the board looked boring! ”

Dr Ed Seward,

Clinical Lead and National Clinical Associate,
Whipps Cross Hospital, Barts Health NHS Trust



Example one: Set of balanced measures - Whipps Cross, Barts Health NHS Trust

Productive Endoscopy Measures			
	Safety	Effectiveness	Experience
Definition:	Reducing avoidable harm	High quality clinical outcomes of care. These are dependant on the right people, right time, right place, right first time every time.	Placing service users at the centre of their care. This includes staff working within health and social care as well as those who use services.
Criteria:	Levels of serious untoward incidents. Levels of violence and aggression. Levels of clinical incidents. Levels of potentially preventable complications. Hygiene and safeguarding standards.	Compliance with: National strategies. National frameworks. Evidence base. Royal College Professional Societies. NCT: guidance. Care Quality Commission JAG accreditations GRS/PPAT	Responding to the patient carer perspective to improve quality. Maintaining privacy and dignity. Staff morale is expected to directly influence good patient care
Measures used in your project:	No. of complication rates per procedure. No of cancer missed rates. Reduced no. of referrals to independent sector	Caecal intubation rates. Adenoma detection rates. Staff sickness rates.	Patient experience indicated on JAM cards. No. of complaints received. Advice given to patients on discharge. Staff morale
Link to organisational goals/values:	Relentlessly improving and innovating for patient safety	Caring and compassionate with patients, each other and our partners	Actively listening, understanding and responding to patients, staff and our partners
Link to Outcomes Framework:	Domains 1,2 & 5	Domains 1,3 & 5	Domain 4
Link to Compassion in Practice:	Competence	Commitment	Compassion
Link to Productive Endoscopy Modules:	Knowing How We Are Doing Operational Status at a Glance Team Working Referral Management Pre-assessment and Patient Preparation Consumables and Equipment Handover, Recovery and Discharge	Knowing How We Are Doing Operational Status at a Glance Team Working Referral Management Handover, Recovery and Discharge	Knowing How We Are Doing Operational Status at a Glance Team Working Pre-assessment and Patient Preparation Handover, Recovery and Discharge

Prevention	Productivity	Innovation	£	Spread
Primary prevention. Working to prevent ill health. Secondary prevention. Working to prevent the condition from becoming worse.	Is defined as: Process efficiency (ie waste removal, reducing the causes of waste)	Innovation in the context of this template means pathway, process or workforce.	Estimated financial saving or cost avoidance.	Scaleability - roll out across the department/ organisation.
Increasing access to prevention services. Developing primary and secondary prevention strategies. Partnership working with Social Care and third sector Managing risk	Number of process stage removed. Pathway re-design. Reduction in waste. Space utilisation. Patient flow. Reduce utilisation. Matching Capacity and Demand.	New ways of working. New models of care. Pathway re-design. Process re-design. Spread implication. Adapting existing processes into new areas. Involving patients and carers. Sustainability. Pilot site testing of Productive Endoscopy modules. Innovation sites.	Slots, beds, DNAs, cancellations etc	Application of generic learning. Application of Learn principles across the department. Roll out of Productive Endoscopy modules across all clinical GI areas. Spread to respiratory services (bronchoscopy) and urology services (cystoscopy)
Compliance with WHO checklist. No. of patients seen on STT pathway.	Room utilisation rates. List utilisation - points actually booked. Inpatients scoped within 24 hours. DNA/Cancellation rates.	Outpatient slots saved by implementing STT. Potential costs saved in OPD appointments. Home enema rate for flexi sigmoidoscopy	Cost per unit test	Use of Blatchford score in A&E and involve staff from other endoscopy sites within the Trust.
Achieving ambitious results by working together	Relentlessly improving and innovating for patient safety. Achieving ambitious results by working together	Valuing every member of staff and their contribution to the care of our patients		Vision: To Change Lives
Domains 3 & 5	Domains 1, 2 & 3	Domains 3 & 4		Domains 1-5
Communication	Care	Courage		6Cs
Knowing How We Are Doing Operational Status at a Glance Pre-assessment and Patient Preparation Handover, Recovery and Discharge	Knowing How We Are Doing Well Organised Unit Operational Status at a Glance Team Working Scheduling Session Start Up and Patient Change-over Consumables and Equipment	Knowing How We Are Doing Team Working Referral Management Pre-assessment and Patient Preparation	All modules	Executive Leader's Guide Programme Leader's Guide

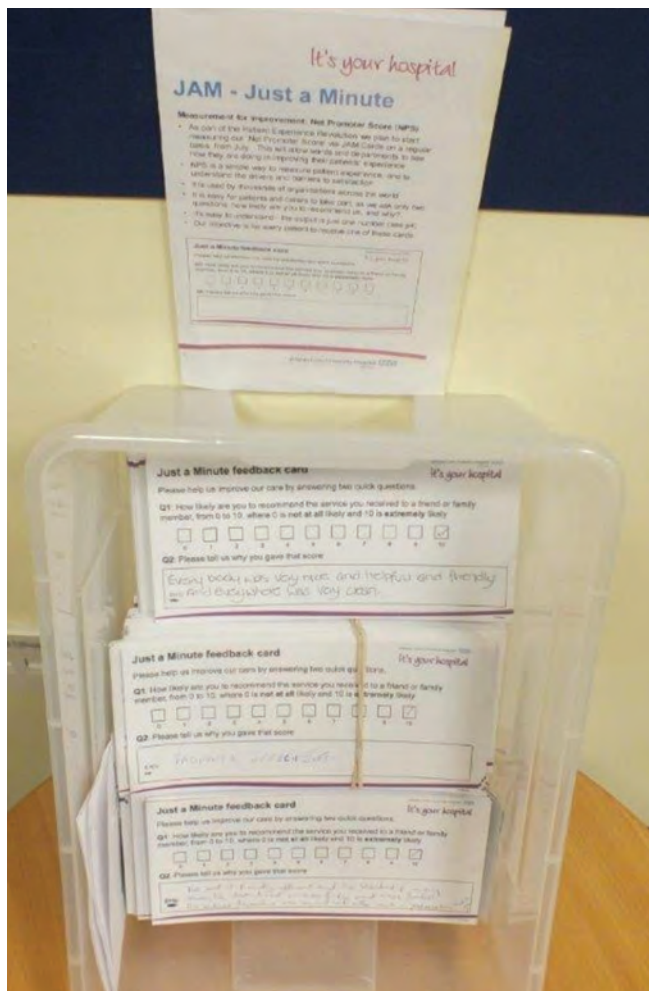
“

Patient groups also love the data being up, they love the transparency.”

Dr Ed Seward,

Clinical Lead and National Clinical Associate,
Whipps Cross Hospital, Barts Health NHS Trust

- 1 Patient experience from JAM (just a minute) cards
- 2 Data represented in column charts and pie charts
- 3 Good visualisation: clear labels show dates to which the data relates
- 4 Start/stop audits and room utilisation data shown
- 5 Gantt charts show project progress, with clear aims
- 6 SIPOC - a high-level picture of a process that depicts how it is serving the customer
- 7 'Benefits Dependency Networks' (BDN) display potential benefits from the changes
- 8 Fishbone diagram - identifies possible causes for an effect or problem

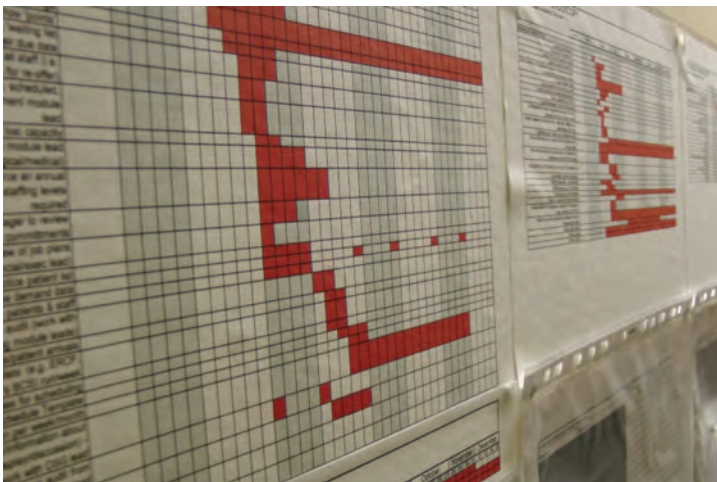
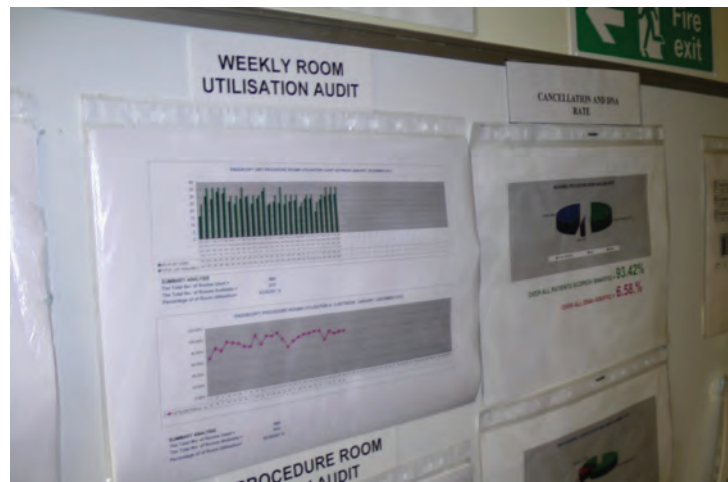


Patient experience from JAM (just a minute) cards



Good visualisation: clear labels show dates to which the data relates

Data represented in column charts and pie charts



Gantt charts show project progress, with clear aims

Start/stop audits and room utilisation data shown

ROOM 1 START & FINISH TIME ADD

TODAY'S DATE: 18-09-2013

AM LIST:	OFFICIAL START TIME	ACTUAL START TIME	OFFICIAL FINISH TIME	ACTUAL FINISH TIME
09:00 AM			13:00 PM	
PM LIST:			17:30 PM	

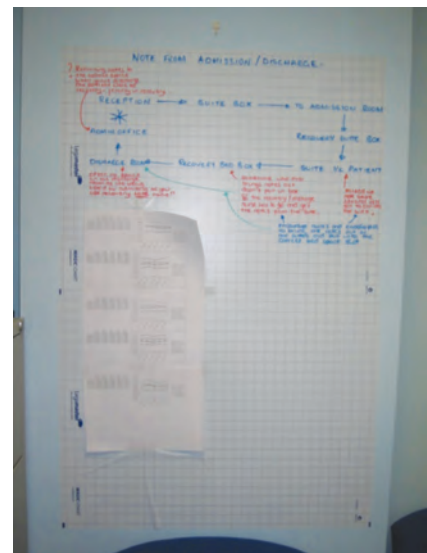
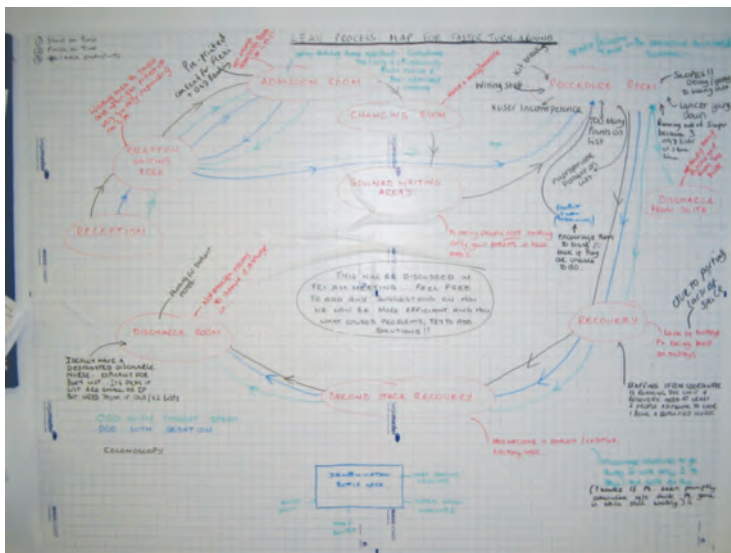
REASON FOR VARIANCE

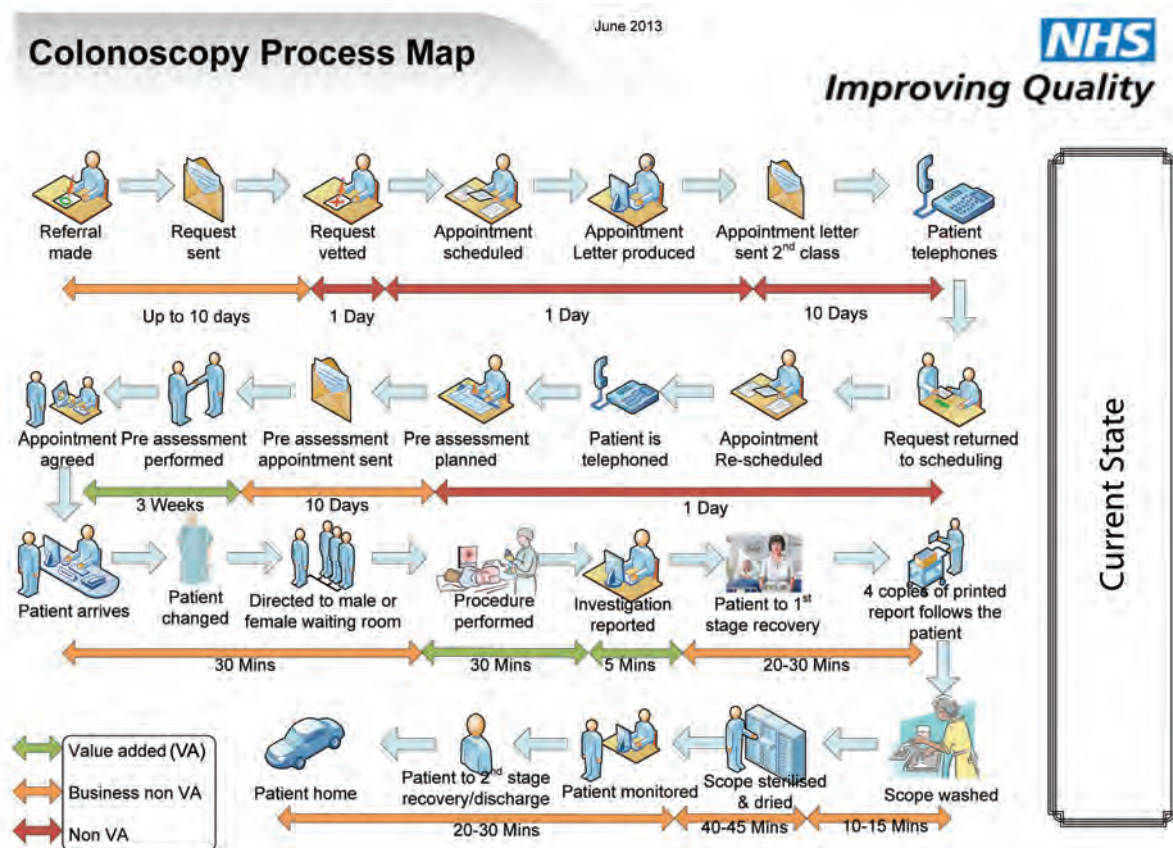
CODE	VARIANCE	CODE	VARIANCE	CODE	VARIANCE
1	Room not ready	10	Missing stock		
2	Equipment not ready	11	Machine Failure	19	Had an early start
3	Nurses not ready	12	Patient here early	20	Medical case
4	Doctors not ready	13	Procedure		
5	No Patients				

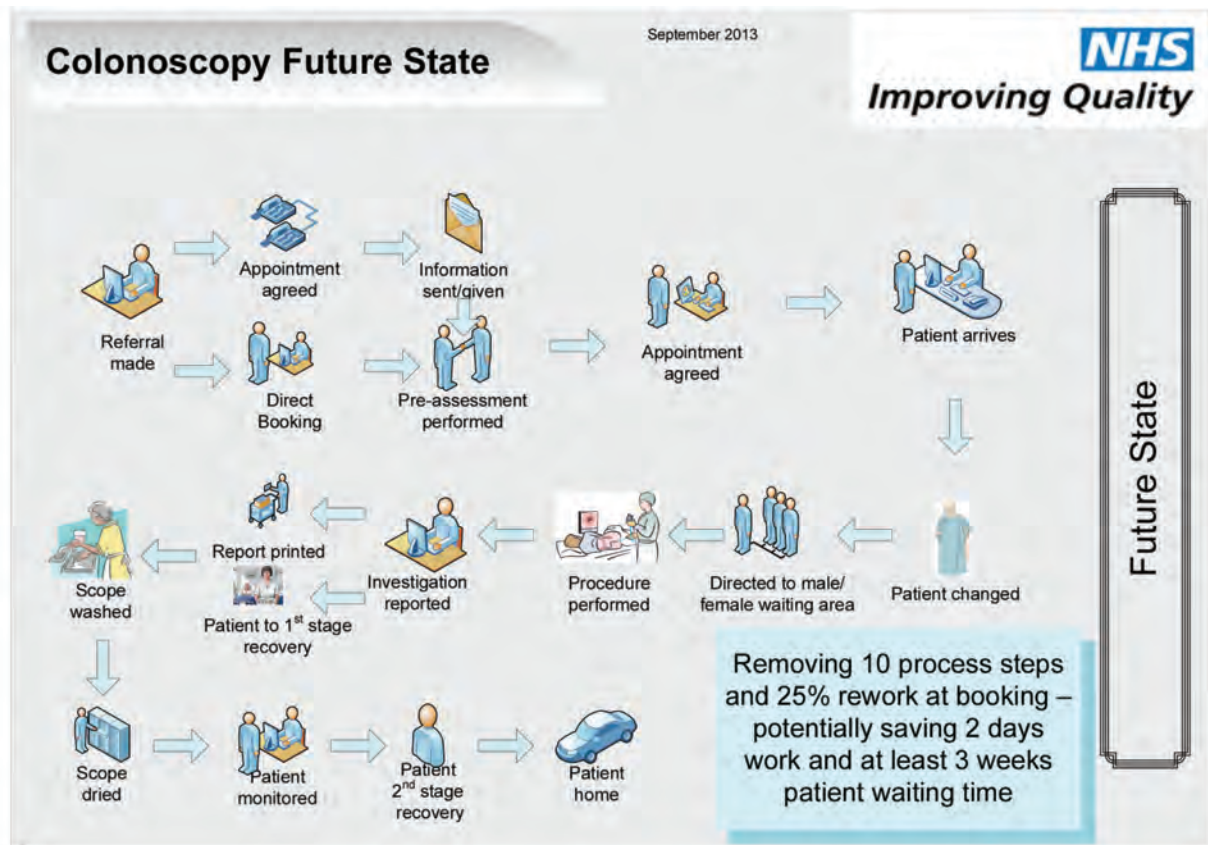
What we did

- ## Impact

- Mapping made it 'visual' to see exactly what is performed and when
- Steps that could be eliminated were identified immediately
- Steps that could be combined to save time for staff and reduce patient waiting time between steps were also recognised
- The whole exercise generated lots of ideas from staff
- Having a visual representation of the process made it easier to step back and see the improvements that needed to be made
- The map allowed the team to see areas of duplication, unnecessary workarounds/steps, wasted staff effort







“

We've taken out steps so we now don't do what's not required!

”

Koralie Bird,
Unit Sister, Portsmouth Hospitals NHS Trust

Example three: Value stream mapping - Liverpool and Broadgreen University Hospitals NHS Trust

Problem

- Staff had different perceptions of how processes worked and assumed that they knew how people and processes operated in the different parts of the pathway
- There was very little data available to confirm the detailed value adding process/touch time and waiting time. Staff felt that they knew how they were doing, but this was not evidenced with data.

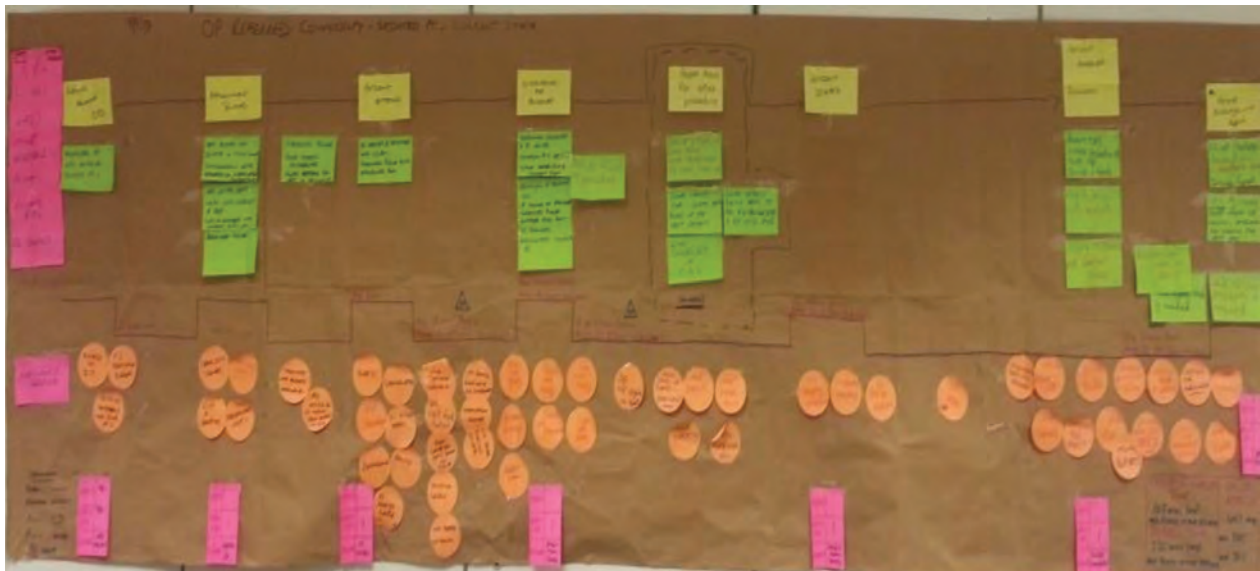
What we did

- Staff were introduced to Lean principles with the support of a flow simulation exercise
- Using the value stream mapping* principles, a group of staff walked the end to end patient pathway for the endoscopy and colonoscopy procedures and gathered observations on a waste walk template
- Staff mapped the high level steps in the pathway and identified where data was needed in order to evidence what was happening in reality
- A data collection plan was created and agreed with a focus on timings relating to value-add steps and waiting time. Data was also collected on patient experience, quality (defects/rework), and batch sizes and inventory of referrals, samples/biopsies and reports.
- Staff supplemented the value stream map with their own thoughts, niggles, frustrations and improvement ideas to complete a full picture of the colonoscopy pathway
- Staff could then identify what adds value for the patient and what does not (i.e. waste). Some steps (e.g. transport) were identified as a waste but a necessary waste and therefore needed to be minimised.



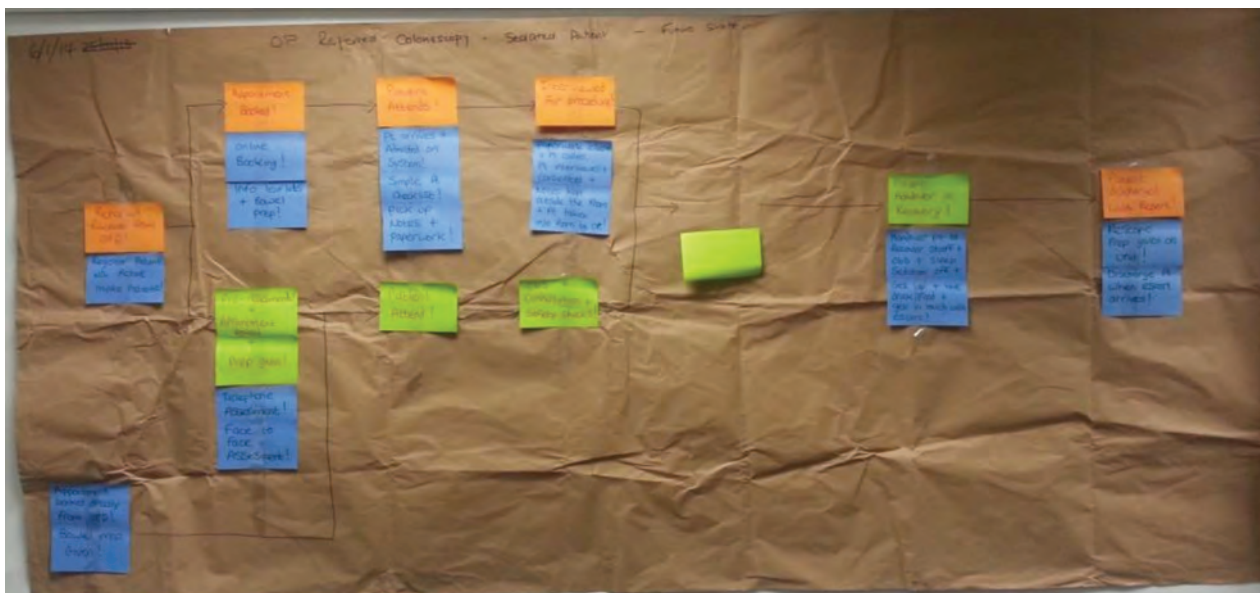
*** For more information on Value Stream Mapping please see the toolkit that accompanies these modules.**

Current State Value Stream Map - Colonoscopy



- With Lean principles in mind (flow, pull, first-in first-out, levelling), a future state value stream map was then created

Future State Value Stream Map - Colonoscopy



Impact

- Detailed understanding of end to end colonoscopy pathway
- Average patient journey 153 mins, range of 75 mins – 245 mins
- Average patient journey value add % is 49%, range of 29% - 58%
- Examples of waste identified:
 - Transport – excessive transportation of patient notes/reports
 - Motion – excessive motion of staff to move patient throughout the department
 - Motion – searching by staff for patient and other members of staff
 - Motion – searching for stationery items and equipment
 - Waiting time for patient and staff - delays for INR BM's, pacemaker checks, incomplete enemas/preparation, cannulation staff, no patient escort
 - Defects – patients not attending (DNAs)
- The current state value stream map captured and visualised the whole process from end to end in a method that was simple and easy to understand by those working in the department.

Results

- Staff discussion and identification of process steps that they could potentially:
- Eliminate – were any steps pure waste and could be eliminated?
- Simplify – were any steps overcomplicated or complex and could be simplified?
- Combine – could any steps be combined to flow better?
- (re)Sequence – could any steps be (re)sequenced to flow better?
- 3 options explored to potentially improve end to end Colonoscopy pathway:
 1. Continue with similar pathway to current state with improvements to booking process and testing of patient arrival checklist
 2. Test new pathway incorporating pre-assessment by telephone or face-to-face and simplified observations, cannulation (if required) and safety check
 3. Test new pathway with appointment booking at outpatients clinic, with improvements suggested in option 2

Step 3 – Confirm collection and display

As an output of the workshop you will have collected a number of measures from across the four domains that could go into your final measures set. For each of these you will need to complete a measures checklist. This is an important part in taking your workshop outputs and identified measures to the next step. The measures checklist can be found in appendix 3, and as part of the toolkit.

By completing a checklist for each measure you will be able to review the suggested measures in greater detail. This will help you to decide what is both practical and useful, and define which measures you wish to test first on your Knowing How We Are Doing board and in your measures review meetings.

TOP TIP: As you work through the checklist you will identify where the data comes from; sometimes it is already collected but often you will have to collect it yourself

As you begin to define exactly what it is you are measuring you may find it is so complex that you have to rethink ways to measure it so that you can collect the data reliably.

How will you do it?

Arrange a meeting for the group identified at the measures workshop to take the measures forward. The objective of the meeting will be to review the suggested measures from the workshop, agree which ones will be tested further and agree on the exact definition and the collection analysis and review process.

- Initially, select two or three measures per domain.
- Complete a measures checklist for each measure. This will prompt you to agree and confirm:
 - The exact measure definition
 - Who is responsible for collecting the data and how they will go about it
 - Who is responsible for the analysis of the data, how they will present it and how often
 - What forum will the information be reviewed at and who is responsible for taking action.
- Agree what measures you will use and when you will begin using each measure
- Communicate your agreed measures set to those who participated in the workshop and those who were unable or chose not to attend. You could include them in your Productive Endoscopy Unit newsletter, as an agenda item at the unit meetings, or put them on your Knowing How We Are Doing board.

TOP TIP: You may want to use all the measures from the workshop, but it is more manageable to build up the number of measures you use as you go forward. Set yourself a target of when you will start using each measure.

“

The data collection was really important in terms of picking apart the departmental processes. ”

Nicky Taggart,

Endoscopy Manager, The Royal Liverpool and Broadgreen University Hospitals NHS Trust

What are you aiming for?

As part of the measures checklist you were prompted to think about what goal to set for each of the selected measures. What is the level of performance you want to achieve for each measure? As introduced in the measures workshop, remember to set SMART goals.

TOP TIP: Persevere!
You may not get it right first time.

Setting a SMART goal

There are three steps to setting your goals:

1. Collect data for each measure to create a baseline
2. Look at the benchmark to see what is best or you may have some locally agreed goals or standards which go beyond these
4. Set an aim for each measure according to SMART principles:
 - Simple** – give the aim a clear definition, e.g. reduce turnaround time
 - Measurable** – ensure that data is available
 - Aspirational** – set the aim high to provide a challenge to the team
 - Realistic** – take into consideration factors beyond your control which may limit your impact
 - Time bound** – set a deadline.

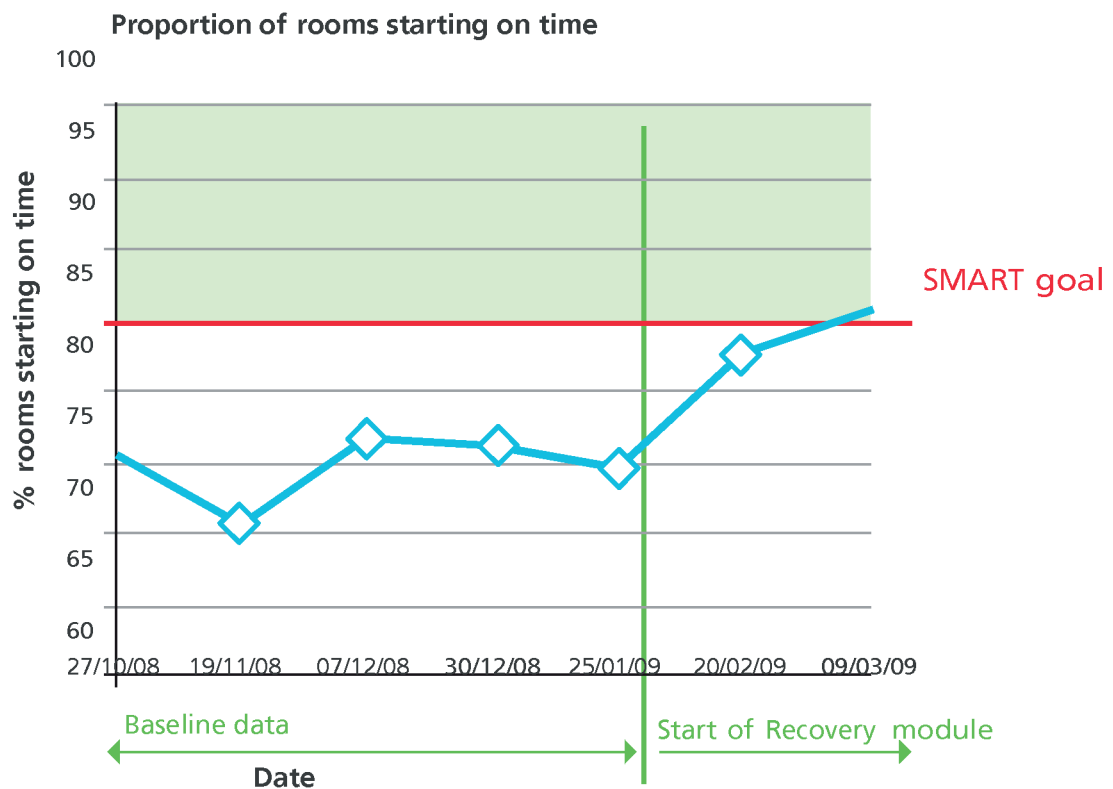
Examples of SMART (and not so SMART) goals

X	We will eliminate incidents!
✓	We will reduce incidents to two or less per month, and serious incidents to one per quarter by 31 December
X	All sessions will finish on time
✓	We will reduce the number of late finishes by 50% by 31 August

Baseline measurement

This is a measure of your current unit performance before any changes are made. Repeating the measurement after you have made a change allows you to measure the impact of what you have done and any changes you have made.

Be clear about what you want to measure and why. This will help you work out whether you need to count something, calculate a percentage or report against a set goal. Think about how you might present the data so that it is easily understood, e.g. run charts, pie charts, bar charts or headlines.



Ideas that have worked

Example four: Baselineing your service - Whipps Cross Hospital, Barts Health NHS Trust

The service

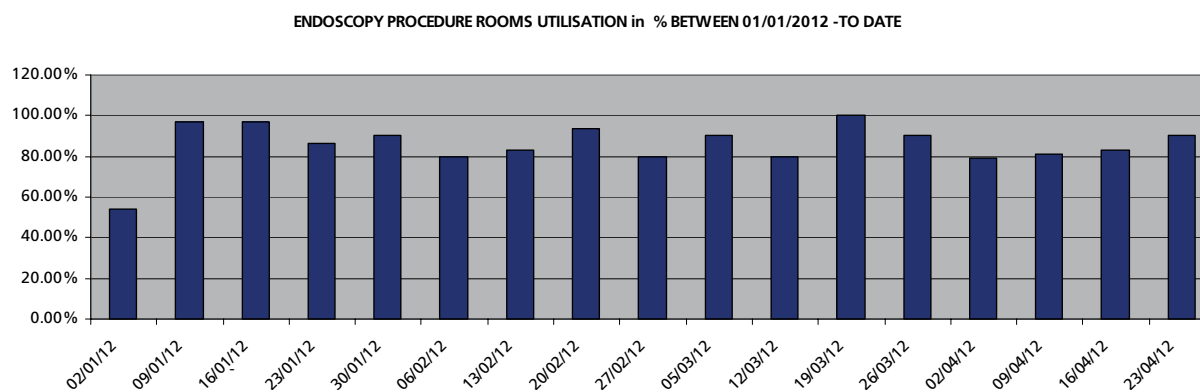
- Serves a population of around 350,000 patients
- The endoscopy unit consists of three endoscopy rooms, seven GI consultants, two endoscopy CNS's
- BCS and JAG accredited
- Perform ERCP's in the interventional room
- Perform pH manometry and capsule investigations

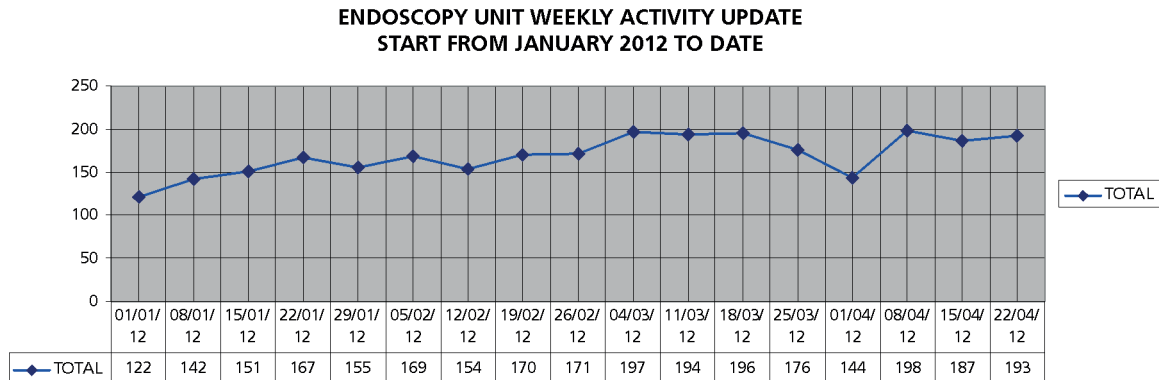
Problem

- The histopathology department had previously embarked on a lean transformation, reducing turnaround times from weeks to five days, meaning the endoscopy unit no longer had stacks of notes waiting for follow up clinic appointments to be made as the biopsy results came back so quickly
- If the unit had simply adopted some of the improvement principles from the histopathology department, there was a risk of not really understanding what was actually wrong with current processes before introducing another way of working – which may or may not have made a true improvement
- The unit needed to understand current data to identify the starting position and to define where redesign efforts should be focused

What we did

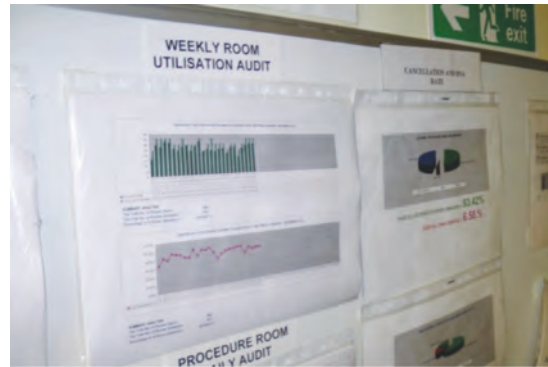
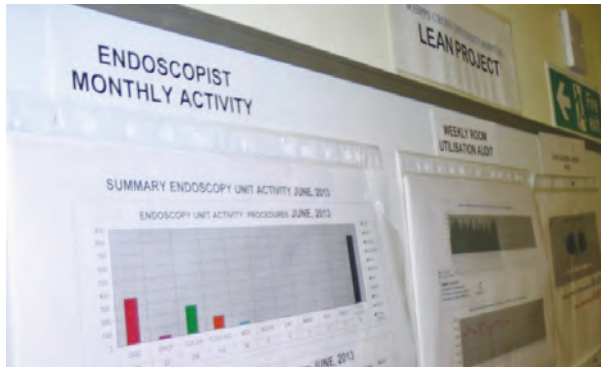
- One member of staff with excellent IT and analytical skills, collected retrospective capacity, activity, demand and backlog data and set up a method to continually collect this on an ongoing basis
- DNA and cancellation rates were also collected





Impact

- Implemented a robust system in replacing 'last minute' cancellations and DNA's therefore reducing wasted slots
- Transparency of weekly activity against room utilisation
- Collection and display of data weekly



Present the measures on a Knowing How We Are Doing board

With your initial measures agreed, the next stage is to plan your Knowing How We Are Doing board.

Why do this?

The Knowing How We Are Doing board displays useful information for the endoscopy team to help them improve their service. It is a great way to showcase your commitment to improving care and safety and the plans your team has developed together. Even if you feel your results are below par, do not be tempted to hide it! Evidence that the team recognise issues and is taking actions will inspire greater confidence.

Look for inspiration

Get ideas for the content and presentation of the measures board by looking for good examples of information boards in other units as well as in the wider Trust. If your organisation has Productive Wards or Productive Theatres visit them and look at their Knowing How We Are Doing board. Build on these ideas to make your measures board work for your endoscopy unit.

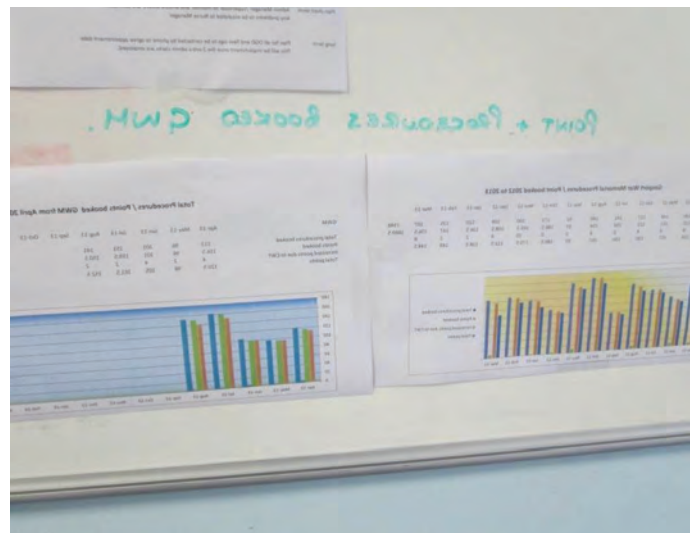
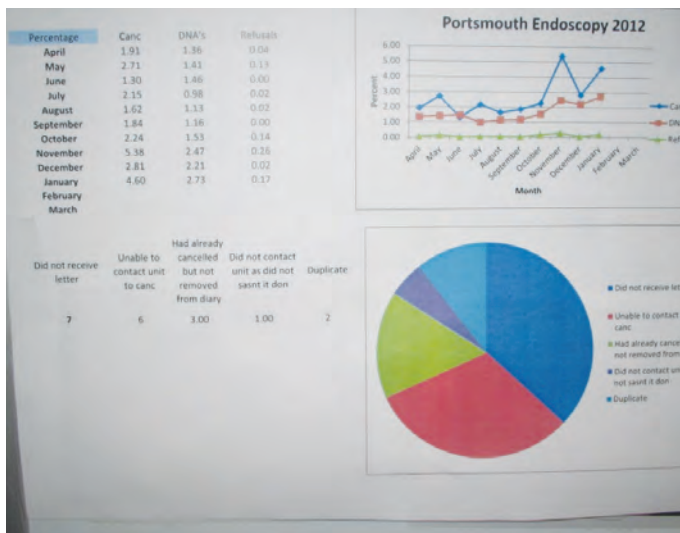
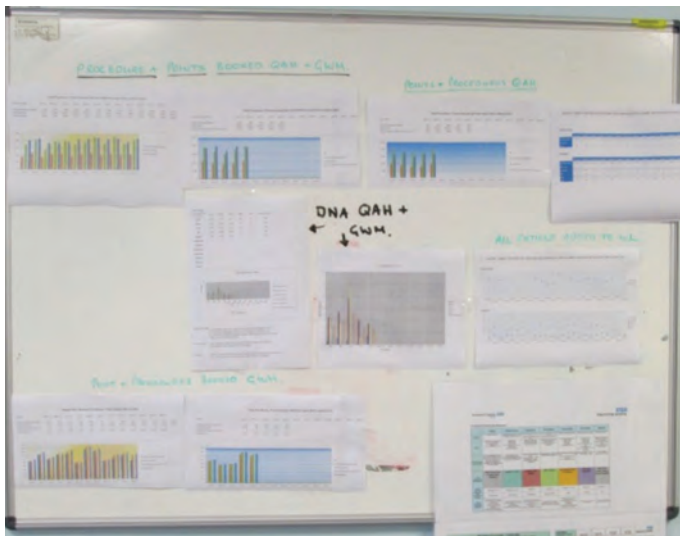
The following pages show examples of Knowing How We Are Doing boards. The principles and structures are good guidelines for creating your own but should not be copied. Use them to stimulate growth and creativity within your team to create your own version to reflect your requirements.

Go through the examples with your team and use them to help stimulate your own ideas. Think about what you are trying to do with the board and what messages you want to convey. This board needs to concentrate on demonstrating that all the work you are doing is making a difference. You should have a separate board for project communications such as events, newsletters and general information about how to get involved.

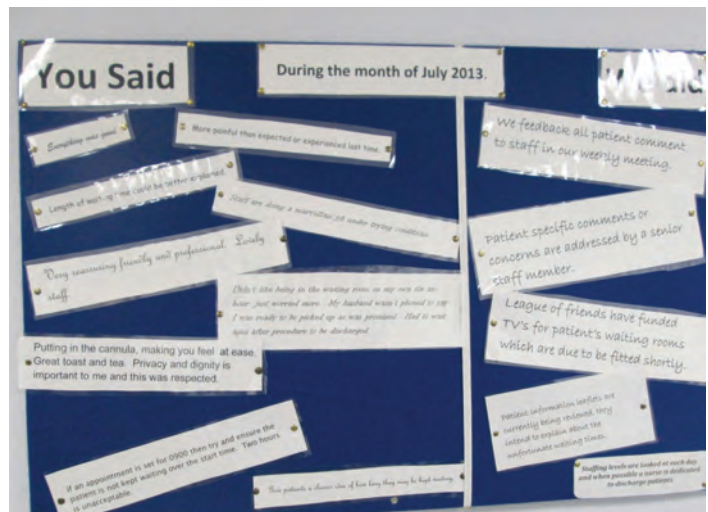
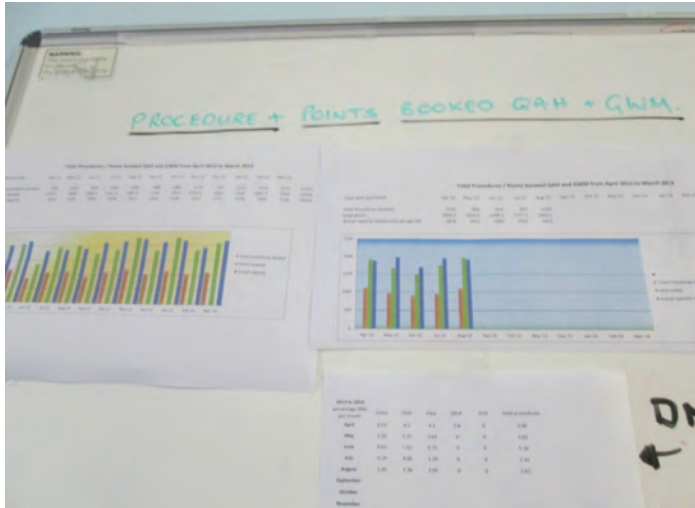
Ideas that have worked

Example five: Knowing How We Are Doing Board - Portsmouth Hospitals NHS Trust

- 1 Data displayed in a variety of ways - run charts, bar charts, pie charts
- 2 Run charts that are updated weekly, showing progress over time which monitors sustainability of changes
- 3 Measures are shown as a dashboard and updated weekly
- 4 Patient suggestions shown on 'you said, we did' boards
- 5 Good use of colour helps draw attention to key information
- 6 Cancellation data shown and analysed
- 7 Numbers of patients added to waiting list shown on a graph
- 8 Measures linked to Trust objectives



The Productive Endoscopy Unit - 2. Introduction to the seven step model



Ideas that have worked

Example six: Helping staff and patients to see how the unit is performing - Gateshead Health NHS Foundation Trust

What we did

Gateshead Endoscopy Unit has four procedure rooms. Like most units, the Gateshead team experience a number of factors which can impact on capacity to undertake procedures.

These include:

- Patient cancellations and no shows (DNAs)
- List starting late
- Interruptions to the flow of patients through the rooms during a list.

As part of continuous improvement work to help the staff and patients understand how endoscopy is performing overall the Unit Manager, created a visual display board of information on some of the most commonly measured variables on the unit.

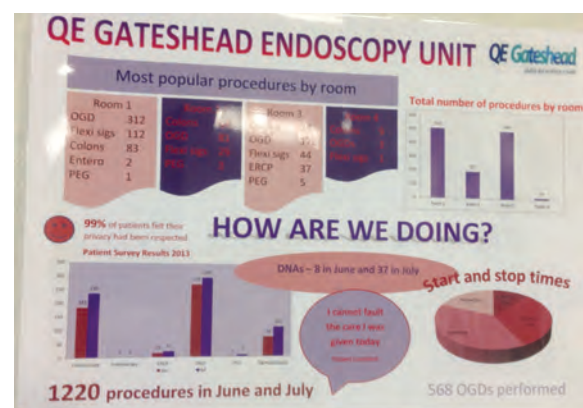
The information for the board was created from two previous month's data which was taken from manually completed daily activity sheets for each room. This sheet is filled in on a 'per list' basis by nursing staff within the procedure rooms in real-time and contains information on:

- Activity by procedure
- Any cancellations or DNAs
- Start time
- Stop time.

Impact

The data displayed allows staff to understand how well the unit is performing in terms of overall procedures undertaken, and also improves staff morale when data is publically displayed which highlights achievements in areas such as positive feedback from patient surveys.

Regularly updating the display helps to show if improvement ideas are taking effect and whether there are variations in the performance of the unit over a period of time.



Ideas that have worked

Example seven: Developing clear goals and knowing what you are aiming for - Whipps Cross Hospital, Barts Health NHS Trust

Problem

- Trust values needed to be a part of the ethos within the endoscopy unit
- A need to focus on objectives was identified:
 - What is the objective?
 - Is it agreed between clinicians, nursing staff and the admin team?
 - Is it achievable?

What we did

- Examined end-to-end processes to assess current state
- Discussions amongst the team to determine “where we wanted to be”
- Collected baseline data to assess how big the gap was to the goal
- Made some aspirational suggestions and generated lots of ideas on how to improve
- Conducted a start/stop audit to obtain current data
- Considered ‘safety’ in the procedure rooms (safely checking patients for procedure, demographics, checking equipment, implementing a hybrid of the WHO checklist etc.)
- Looked at how to minimise ‘lost’ time. This was an overarching factor for:
 - ‘Standardisation’ of storage (in/out of rooms) – knowing where kit is and what/how much is being used
 - Making it easy for staff (avoid running around)
 - Restocking inventory.
- Actively sought the views of patients by encouraging them to leave a completed comment card
- Once all the possibilities of one objective have been exhausted, then another is taken on to keep ideas fresh!

Impact

- Ideas are now coming from all staff, thereby maintaining the momentum and not losing sight of goals
- Early discharge for un-sedated patients has been implemented, mirroring practices in radiology



As we improve, our goals evolve, we stretch the boundaries and are constantly tweaking! We are already looking ahead as to what we can implement next year. ”

Jim Buenaventura

Endoscopy Manager, Unit Manager, Whipps Cross Hospital,
Barts Health NHS Trust

Where to locate your board?

Things to consider:

- Open and transparent management of information:
 - Locate in a general communal area and not in an office or other restricted area – having this out in the open shows your commitment.
- Functional:
 - Supports a unit meeting in terms of space. Is it easy to view and is there space around it to have a team discussion?
 - Not in a place where people looking at it will be in the way
 - Encourage teams to look at the information at least once a week.
- Integrated with other unit data:
 - No duplication/conflict with other endoscopy service data.
- Health and safety:
 - Check with infection control to agree what materials can be used, e.g. stickers, tape.

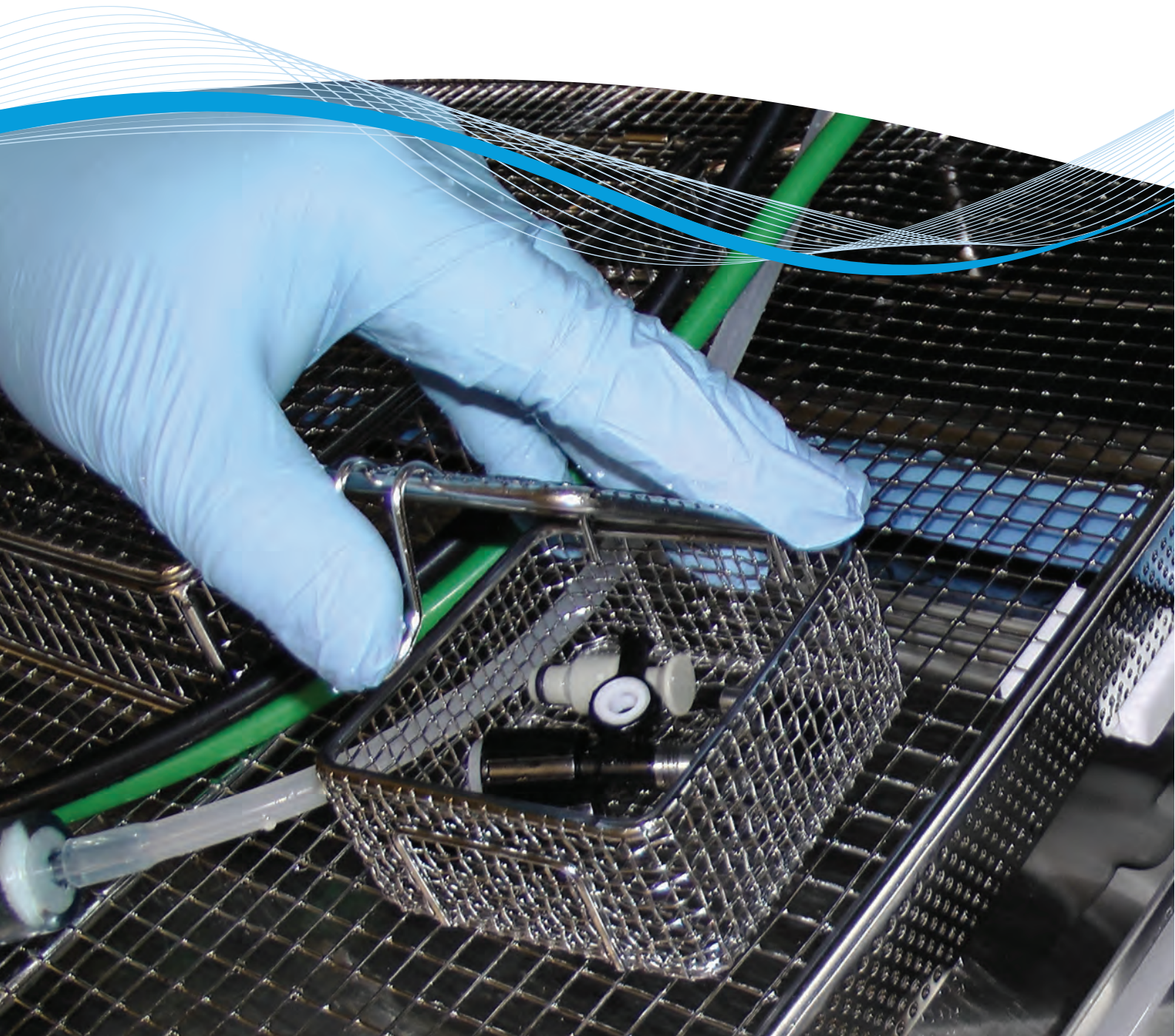
TOP TIP: Displaying data is new to many of us, just take a leap of faith and make it visible.

“

Be prepared for some stick. It's very brave putting data up. As soon as you put something on the wall, all of a sudden it's set in stone!”

Ed Seward,

Clinical Lead and National Clinical Associate, Whipps Cross Hospital, Barts Health NHS Trust



How to make it easy to use

- Plan out the likely dimensions of your board by laying out the data you want to display on a large surface and measuring the perimeter
- Remember to think about:
 - Making it easy to update the information
 - Can the board be fixed to the wall that you have chosen?
 - Keep it visual, use easy to understand visual indicators to show when performance is good or bad, e.g. simple run charts, traffic lights systems.

What should be included on the display board?

- The agreed measures displayed in run charts/pie charts/bar graphs etc.
- Agendas and timetables for measure review meetings
- Action lists and notes from measure review meetings – problem and countermeasure sheet
- Flow chart to show where the data comes from (so that the team can keep the board updated when you are not available)
- Clear identification of responsibility for updating measures
- The date the board was last updated

Who is responsible for the upkeep?

- Involve different people for different sections – spreading the load will make it more likely that the updates will be completed
- Be clear about how often the data is updated
- Both of these will have been identified on the measures checklist
- Make sure you have permission for the data to be displayed

Prototype board

- Create your prototype board and trial it
- The information you display will continue to evolve as you progress through The Productive Endoscopy Unit modules

Communicate your measures

Understand who the key stakeholders are - you will need to engage and involve them at each level. Communicate to all clinicians, endoscopy staff and management the content and outcomes of the measurement workshop, the follow-up meeting and how this will be taken forward using the Knowing How We Are Doing board and the collect, analyse and review (CAR) cycle, steps 4 to 6 of the seven step model.

Pay particular attention to the opinion leaders in each of these groups as they will influence their colleagues.

What is engagement?

- Involvement
- Participation
- Interest
- Commitment

Why spend time trying to engage and communicate with colleagues?

- They provide a source of support throughout the project (and beyond)
- To bring a different perspective to your challenges – new insights
- To increase the likelihood of sustainability – people take ownership of what they help to create
- To demonstrate commitment of the Trust and reinforces the importance of the project and the unit itself.

How to get the engagement?

- Communicate all activities – including evidence from Knowing How We Are Doing about improvements made
- Make your improvement activity a standard part of the management and staff agenda
- Ensure improvement and its measurement is routinely talked about in endoscopy unit and management meetings
- Communicate the improvements you have planned – and shout about it when you deliver them!
- Invite an executive to your next review meeting
- Get a manager to audit your team board and make sure it is regularly updated

“

This was a very different approach to what we'd had before. Previous experiences of 'Lean' left us feeling very 'done to' but this was very inclusive. ”

Nicky Taggart,
Endoscopy Manager, Royal Liverpool and Broadgreen Hospitals NHS Trust

Ideas that have worked

Example eight: Staff engagement and communication - Royal Liverpool and Broadgreen University Hospital NHS Trust

Working through the diagnostic phase using Productive tools to gather baseline data about the service has enabled module leads to examine waiting times, start and stop audits, finishing times and information regarding enema applications. This can be a very challenging phase as it is time consuming for staff and can have an impact on the working day.



The Knowing How You Are Doing board provides staff with information on KPIs, clinical incidents, any complaints and action plans. Current areas of concern are also fed back via this board.



The 'Inscope' quarterly newsletter gives staff information regarding current performance, new policies, procedures or news items of interest.

Confirm collection and display – milestone checklist

Move onto **Step 4 – Collect data** only if you have completed **all** of the items on this checklist

Checklist	Completed?
Agreed as a team initial measures set to trial	
Worked through the measures checklist for each measure	
For each measure identified and agreed: <ul style="list-style-type: none"> • Measure definition • Who is responsible for collecting the data and how they will go about it • Who is responsible for the analysis of the data and how to present it • Who will review the information and who is responsible for taking action. 	
Set SMART goals	
Reviewed example measures boards and reviewed systems for ideas	
Asked staff for their ideas, building on all examples seen	
Decided on size, location and layout of board	
Developed the prototype board	
Communicated your measures set and how you will take the process forward	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Step 4 to 6 – CAR measurement cycle

Measurement itself is a process. In its simplest form it consists of three stages.

- 4. Collect** – collect data
- 5. Analyse** – analyse and present data in an appropriate way to convert it into useful information
- 6. Review** – review your information to see what decisions you need to make

The Collect – Analyse – Review (CAR) cycle then starts all over again. This cycle is explained in detail over the following pages.

Step 4 – Collect data

Collecting the data is all about implementing what you have already defined at the measures workshop and then in more detail through the measures checklist. Using the definitions described in your measures checklist, you are now ready to begin to collect data about your endoscopy unit.

Most hospitals have some form of electronic booking system, as well as an endoscopy reporting tool. Your unit may also have collected data as a part of your GRS submission, or you may have used the PPAT tool to help assess your service and areas for improvement. Work with the person who manages and creates reports from these systems to:

- Help you create a baseline of your current position
- Identify aspects of the system that can produce update reports on an ongoing basis.

Many information systems take time to produce outputs. Think about how you can collect real-time data. Could staff members keep direct visual records of performance that is live on a daily or sessional basis? This can be a much more effective, timely and accurate way to monitor performance than to wait one month for a computer-generated report.

Simple paper-based systems can be great for collecting the data at source, but you need to think about who will enter this onto a computer, if that is how you intend to analyse it. Work with the Trust analyst team to develop easy-to-use spreadsheets for this sort of work.

How to go about collecting your data

- Make sure you have completed and agreed as a team a measures checklist for each measure (see appendix 3 or the toolkit accompanying these modules). This will tell you how to collect the data, who will collect the data and how frequently
- For each measure get all the people involved together. As a minimum you will need the people responsible for:
 - The data collection
 - The analysis
 - Taking action.

One person may be responsible for a number of roles and/or for a number of measures.

- Review how the process will work and make sure that everyone understands their role. Pay particular attention to:
 - Making sure the definition is clearly understood
 - The frequency of collection
 - How the data gets to the person who will analyse it
 - The deadline for getting it to the analyst
 - The way it will be reported
 - Where it will be reviewed.
- Now begin collecting

TOP TIP: Make sure everyone is comfortable and fully understands the measure definition, do not assume everybody understands terminology such as numerator or denominator.

What to do if...

You have the data for a measure but it is not defined in quite the same way as your definition?

Use the data you have if you are happy it will tell you what you need to know about your unit's performance and allow you to reach conclusions that drive activity and improvement. Modify your definition if appropriate.

You have no data for a measure and don't know where to start collecting it?

Talk with your project facilitator and senior managers.

You may have to enlist the support of the finance team or information department to help you.

You can get the data but it does not come to you regularly?

Agree with the people concerned that the data must come to you in a timely way. You may need to enlist executive support to do this.

Ideas that have worked

Example nine: Real-time data collection and visualisation – University Hospitals Birmingham NHS Foundation Trust

This flip chart was used to collect real-time data on glitches. Analysis of the reasons identified the problems, which were then addressed in order of the biggest reasons first.

TOP TIP: Timely monitoring allows timely intervention.

ISSUES	TALLY	COMMENTS
OUT OF STOCK		
TOO MUCH STOCK	1	Check - check / check - check found in incorrect location
CANT FIND	1	check - check / check - check found in incorrect location
OUT OF DATE	100 + (check out-of-date in stock paper)	check found in the incorrect location - check has been taken to the stock paper in cupboard - one of the 100 + check - check
MISC	1	Staff digging their hands before and now system - then lost my receipt for (with missing) item

Example ten: Data Collection - Whipps Cross Hospital, Barts Health NHS Trust

- Needed to identify what stopped patient throughput on a day-to-day basis to develop an efficient 'flow' through the unit
- Late starts to lists were subject to 'blame another professional group' game-playing
- The specifics of why lists did not start on time was unknown

What we did

- Embarking on the Knowing How We Are Doing module of The Productive Endoscopy Unit enabled staff to decide 'what' data should be collected and for how long
- As much data as possible was collected from the unit's electronic systems
- Manual data collection was instigated and a 'start/stop' audit commenced to identify the reasons for any delays
- Audit days were used to examine pie charts/bar charts indicating the variables the manual data collection identified. Any problems/issues were talked through
- The data was displayed and updated monthly
- Now the unit has a weekly performance update
- Several iterations (PDSA's) later, all metrics on the data board are displayed over time (including DNAs, cancellations, room utilisation, individual endoscopist activity etc.)

Impact

- The data boards provide a good talking point and allow 'challenging' conversations about practices and efficiencies within the unit
- Staff who have gone 'the extra mile' in their work are recognised as a 'Star of the Month' with a certificate which is displayed for a week and then given to the member of staff for their professional portfolio
- This public recognition has fostered a sense of pride in the work
- Giving "credit where credits due" encourages real team players!

Results

- Five minutes within the procedure room time was saved by identifying the number of delays to start of lists due to cannulating patients. Nurses now cannulate as part of the admission process
- Consultants now arrive for the start time of the list. Previously, they had blamed the nurses for not being ready or the scope not being available
- Lists no longer overrun
- Decontamination staff come in early to pre-package scopes according to the lists
- Discussion is underway regarding putting additional points onto lists



“

Knowing How We Are Doing boards not only improves communication from colleague to colleague but is great communication to management.”

Dr Ed Seward,

Clinical Lead and National Clinical Associate, Whipps Cross Hospital, Barts Health NHS Trust



Example eleven: Agreeing measures – Portsmouth Hospitals NHS Trust

- Agreeing to be a pioneer site and embarking on 'The Productive Endoscopy Unit' posed both an opportunity and a problem!
 - In addition to responding to national policy/guidance/measures/standards it was important to also adhere to organisational values
 - With the JAG standards, the GRS responses, DM01 returns, Trust cancer waiting times standards, Bowel Cancer Screening (BCS) targets, 6C's, National Outcomes Framework and our own Trust values: Best Care, Best People, Best Hospital; Quality of Care, Respect and Dignity; No Waste/Value for Money; Working Together, the unit was overwhelmed with a raft of ways the service was to be measured. Taking on 'The Productive Endoscopy Unit' only served to add to the confusion!

What we did

- Focus on the measures that were key to patients and relevant to staff working within the unit
- As continuous improvement methodology '(lean Continuous Quality Improvement) was being used, appropriate and traditional improvement measures: safety, quality, delivery, cost, morale were used and expanded on, to incorporate all other measures
- Agreed measures were: safety, effectiveness (quality), experience, prevention, productivity, innovation and spread
- These were then matched to the five domains of the NHS Outcomes Framework, Compassion in Practice (6C's), our own Trust values and The Productive Endoscopy Unit modules
- As module leads were assigned to each of The Productive Endoscopy Unit modules, individual leads were asked to agree a measure for their own module that they would deliver for the unit. This could then be used at annual appraisal and for the individuals future curriculum vitae

Impact

- Agreeing measures has enabled a focus on goals and has fostered an interest in measures across all staff groups. This ensures staff energies are directed in the right way
- Measures are discussed as part of the daily huddle
- The endoscopy service is now aligned to organisational values
- Collecting data has increased recognition with managers – making the endoscopy service measureable has made a big difference to conversations with the senior team
- Displaying agreed measures has had a positive impact throughout the unit and has helped staff to think ahead



Collect data – milestone checklist

Move onto **Step 5 – Analyse and present** only if you have completed **all** of the items on this checklist

Checklist	Completed?
All those responsible for parts of the measurement cycle have met	
All those responsible for parts of the measurement cycle are clear of the process and definition	
All those responsible for parts of the measurement cycle are clear of their role	
All those responsible for parts of the measurement cycle have started to collect their data	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Step 5 – Analyse and present

Once you have collected your data you are ready to analyse and present it.

Analysing and presenting your data transforms the data you have been collecting into meaningful information, e.g. run charts which will help you determine whether the changes you have made are improvements, and how well your unit is progressing towards achieving the goals.

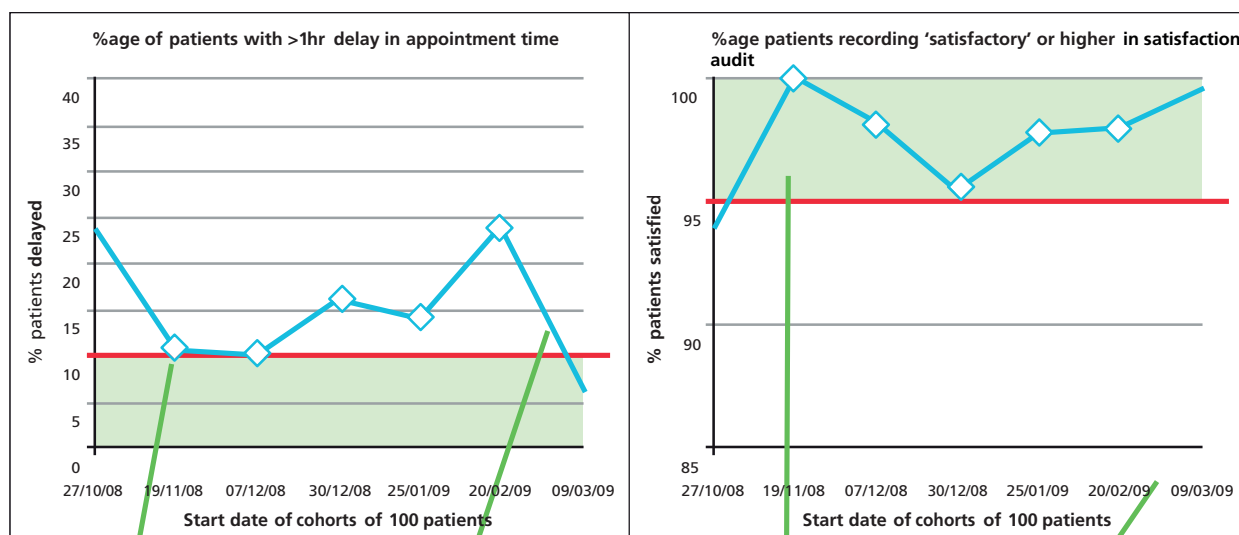
As part of your measures checklist you should have already agreed the process for presenting your results. This process will need to be repeated depending on how often you decided to monitor and review your measures. You will need to update your charts regularly as you continue to collect more data.

How to start analysing your data

Analyse and present your data as agreed on the measures checklist, consider using run charts where possible.

- Annotate any charts, highlighting what changes were implemented that resulted in any changes seen in the data
- Share the analysis with some of the wider team to make sure everyone is able to interpret what it is showing. You may need to modify your presentation or labelling if they cannot
- Once you are happy with the analysis display it on your Knowing How We Are Doing board

Example: **run charts** used to analyse and present data in a field test site:



Reasons are recorded for any points that are not in the green zone

Run charts show the amount of variation in a process

The goal is to achieve the green zone; once it is consistently being achieved the threshold is reviewed

Plotting data over time shows whether the changes are leading to improvements

Why use run charts?

If you only compare two data points, for example start time in endoscopy room one on Monday compared to the start time in the same room the following Monday, you cannot say for sure whether things have improved; even if the second week's performance was higher than the first.

If you had the data for every Monday for the past year and the performance was increasing weekly, then you could confidently say things have improved and they are likely to stay that way.

Plot data on a run chart over time. It is a simple and effective way to determine whether the changes you are making are leading to improvements. Run charts also show how much variation there is in your process from one date to the next.

Because you can pinpoint exactly when you made a change, the run chart can clearly show which interventions had an impact and which ones did not. This is important to know – you do not want to waste time and energy pursuing something that is not going to deliver.

One more thing that will help you to use run charts. Add a goal or target line that represents where you are trying to get to. Keeping the goal line on every graph ensures everyone viewing the graph can see at a glance where the work is in relation to achieving the aim.

Analyse and present - milestone checklist

Move onto **Step 6 – Review measures** only if you have completed **all** of the items on this checklist

Checklist	Completed?
Analysed and presented your data as agreed on the measures checklist	
Shared the analysis with the wider team to make sure they can interpret it	
Modified presentation based on feedback	
Annotated any charts, highlighting when changes were implemented	
Displayed analysis on visual measures board	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Step 6 – Review measures

Reviewing your measures is the most important part of the whole measurement process

The purpose of measurement is to act upon the results. It is vital that you put time aside to review the measures as a team at a progress review meeting. This can be a dedicated meeting, or more usually part of the regular unit audit session.

What is a progress review meeting?

What is it?	<ul style="list-style-type: none"> • A regular, routine meeting to: <ul style="list-style-type: none"> – Discuss progress against goals – Plan actions against issues.
Why do it?	<ul style="list-style-type: none"> • Everyone has a stake in how the service performs • Promotes improved and consistent communication between unit staff • Promotes cohesive team work to achieve your objectives • Encourages ownership and responsibility for problems and solutions
Suggested agenda - see review meeting template in appendix 4	<ul style="list-style-type: none"> • Welcome/update on actions from previous meeting • Review charts and discuss changes – congratulate on good performance and move quickly to areas where improvement is required • Agree actions required/update on actions from previous meeting • Assign new actions and deadlines • Confirm next scheduled meeting

Questions to ask

By reviewing the measures you will learn about how your unit is performing. You will analyse the information and develop conclusions about whether you are measuring the right things. You will begin to understand the reasons behind what the information is telling you and identify the actions you need to take.

The following questions can help guide your discussions at your progress review meeting.

What outcomes did we expect (our vision)?	Example: if we improve our pre-assessment process (change) we will have fewer cancellations (efficiency) which will lead to higher patient satisfaction (patient experience)
Do the results indicate we are achieving those outcomes?	Example: cancellations are down and patient satisfaction scores are up
Are we confident we have made the correct conclusion?	Example: patient satisfaction scores up because of other changes we have made or an event that has occurred
Do the results indicate that we should be doing something else?	Example: cancellations have not changed so maybe the pre-assessment process was not the cause
Are the measures useful?	Example: You may also need to ask whether we have measured for long enough to draw conclusions
Would some other measures tell us more?	

Guide to a successful progress review meeting

The progress review meeting needs structure to be successful.

Agree

- Who will attend?
- The frequency of meetings
- To set a time limit for the meeting
- To use a visible agenda to keep the meeting on track
- A system to communicate outputs with members who are not available (hint: use your Knowing How We Are Doing board).

The review meeting needs **defined responsibilities** to be successful.

You will already have agreed the following in your measures checklists. Ensure everyone is clear who will:

- Collect data
- Update the charts
- Be responsible for performance
- Chair the meeting and keep it on time.

Communicate

Complete the progress review meeting template. See appendix 4 (or The Productive Endoscopy Unit Toolkit that accompanies this module) which captures all the key information about your review. Put the completed templates on your display board, so everyone is clear of who and what is involved and the structure of the meetings.

Habits of successful progress reviews

Six principles will help you get the most out of your meetings

Be on time	<ul style="list-style-type: none">• Show respect for colleagues
Be factual	<ul style="list-style-type: none">• Base discussions on what you know to be true, not what might have happened• Look at the measurements to determine whether you are improving
Be prepared	<ul style="list-style-type: none">• Update the board prior to the meeting• Let someone know beforehand if it can not be done
Be concise	<ul style="list-style-type: none">• Do not go into details – get to the point• Keep the meeting short!
Drive to action	<ul style="list-style-type: none">• Do not move on until you know what needs to be done and who will do it
Be prepared to go and see	<ul style="list-style-type: none">• If it is important enough to be discussed in the meeting, then it is important enough to go and see the problem!

Communication before meeting

Before you hold your first meeting it is a good idea to let the team know what is going to happen and what you expect of them. This will:

- Help ensure your first progress review is successful
- Set the standard for how you want the meeting to run
- Build enthusiasm.

Why bother?

- Preparation is key to success
- Good communication will reduce anxiety about attendance and participation in the workshop
- Ensure the right staff attend, prepare and with a positive attitude, ensuring more time to focus on the outputs

What are you trying to achieve?

- Stimulate staff engagement and interest
- Set the context – Knowing How We Are Doing is the cornerstone of The Productive Endoscopy Unit
- Smooth running of meeting by planning ahead
- Focus on meeting outputs by setting your expectation of a participative 'action' meeting
- Build desire within the team to try and stick at it

Ideas on how to prepare staff for their first progress review meeting

What works best?

- Face to face communication
- Incorporate into an existing meeting rather than create a new one
- Get senior support. Tell them this really is important to our staff, to our Trust and its patients and it should be to you.
- Provide handouts to takeaway – something that staff can digest and then respond to

What does not really work?

- Email invites on their own
- Lack of context – not setting the scene
- Making it mandatory – try to generate enthusiasm rather than compulsion

Things you may want to include in your briefing / discussions

- What you are trying to achieve?
- What is in it for staff, patients, etc.
- How will this move the unit forward?
- What staff need to do:
 - Contribute, consider, come up with ideas, take on actions
 - Propose agenda and timing.

How will you know if your team is ready?

Talk to your team. Ask them how they feel and if they know what will happen at the meetings.

Everyone involved should know:

- The objective of the meeting
- Venue and time of the meeting
- Their role
- What they need to do beforehand
- What will be covered in the meeting
- What they need to do afterwards
- Who to contact if they can't make the meeting or finish the preparation.

With everything in place begin your progress review meetings!

Review measures – milestone checklist

Move on to **Step 7 – Keep going: repeat steps 4 to 6** only if you have completed **all** of the items on this checklist

Checklist	Completed?
Confirmed the agenda and time for your progress review meeting	
Confirmed roles and responsibilities	
Communicated the process using the progress review meeting template	
Understood how to hold a successful progress review meeting	
Prepared the team for the meetings	
Started your progress review meetings	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

Step 7 – Keep going: repeat step 4 to 6

Repeat steps 4 – 6 (the **Collect, Analyse, Review** measurement cycle) to the frequency outlined in your measures checklist and progress review meeting template. You are aiming to meet consistently or exceed your goal. Keep making changes until your data tells you this is so.

Treat the first few times through the cycle as a trial.

Ask the following questions

- Is the board in the correct location? Is there enough room for review?
- Is the board laid out in the correct way?
- Are the measures useful?
- Are the measures represented in the right way to drive the expected actions?
- Are the charts easy to understand?
- Are the SMART goals appropriate?
- Is the agenda and format of the meeting appropriate?
- Is the data collection and board updating process easy to use?

The board should be used as a display tool and the review as the vehicle for change. If you cannot see a process you cannot measure it. If you cannot measure a process, you will not know if you are improving it.

The progress review meeting should result in actions for the team or wider unit group, with follow-up responsibility within the team. Knowing How We Are Doing boards should be updated in advance; meetings should be short and effective, and actions progressed between meetings. If this is not the case, the answers will provide direction for making improvements.

When do you stop measuring?

You don't!

If you are consistently meeting your goal you should strive for more or associated improvements. If you aimed for 100% or 0% and are meeting this consistently, you could measure less frequently. You can pick up and act on any deviations that threaten sustainability.

Be aware that the process of measuring has a positive effect in keeping awareness high. It demonstrates the goals you are measuring are important to the organisation.

You will abandon some measures eventually: for example when the changes you made are firmly embedded as daily practice (e.g. when everybody is conducting team brief/huddle). You will also abandon or revise measures that do not drive the improvements you are making.

At the same time you will also add extra ones, especially as you begin new modules.

You may find it useful to have periodic measures review sessions, where a team take time to look at your whole balanced set of measures and the process around them.

Module measures

Knowing How We Are Doing is a foundation module that underpins The Productive Endoscopy Unit. The principles about measurement for improvement need to be embedded in all of the modules you work through.

At the start of each module run a mini measures workshop with the team that is going to be involved with that module, a suggested set of slides for this session is available as part of The Productive Endoscopy Toolkit.

The aims of this session are to:

- Refresh the team's understanding of how to use measurement to drive improvement
- Identify measures for the module
- Work with the team to decide how they will collect, analyse and review their information
- Complete a measures checklist for the module.

Ensure new measures are included in your progress review meetings and on the Knowing How We Are Doing board.

Hints and tips

To renew enthusiasm, visit an endoscopy unit in another hospital to see how far you have come. Alternatively if your Trust has been involved in The Productive Ward or The Productive Operating Theatre, there will be other areas you can visit to compare their progress and goals with your own.

Once you have a system that works, look for more ways to improve it. Do not get stuck – ask for help from your support team or management. For inspiration, visit a theatre or organisation that has finished the Knowing How We Are Doing module.

Remember to celebrate your success!

Problem solving

What if this happens?

- The data is not available:
 - Check with the Trust – they should provide this information
 - Use the nearest available data source.
- No one wants responsibility for the data updates:
 - Rotate board update weekly
 - Assign one chart per person for update – this will spread the work between the team and encourage active involvement outside the meeting
 - Incorporate the task in job plans.
- The meeting is not being taken seriously:
 - Invite visitors from senior management as appropriate to view the board and participate in the review meeting.
- Issues causing measure to decline are outside unit's control:
 - Talk to the other people or department influencing the performance of the measure
 - Invite them to the review meeting to discuss ways to resolve the issue.
- Chart updates begin to fall behind:
 - Check that availability of data is not hindering chart update
 - Rotate responsibility for chart update – this will also encourage more staff involvement
 - Agree disciplinary measures with team.
- Your review meeting gets cancelled:
 - Plan ahead
 - Seek resources to ensure adequate cover
 - Share your concerns with management.

Keep going: repeat steps 4 to 6 – milestone checklist

Checklist	Completed?
Continued to collect, analyse and review (CAR) your data on an ongoing basis	
Reviewed the CAR process and modified if necessary	
Held periodic measures review session if necessary	
Developed measures for each module you work through	

Effective team work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area/process, not individuals?	

3. Learning objectives complete?

A set of learning objectives were set at the start of this module.

Have you met the learning objectives?

Do all staff understand:

- Why measurement is important?
- That measurement drives better decision-making
- How to use facts and data to drive continuous improvement using the seven step model?
- That they created their own balanced set of measures
- What their balanced set of measures are and how they relate to their work?
- How to set up a visual Knowing How We Are Doing board?
- How to establish an effective progress review system?

Appendices

Appendix 1 – Driver diagram

The following measures have been displayed in four driver diagrams, one for each of the programme domains: safety and reliability of care; team working and staff wellbeing; value and efficiency; and patient's experience and outcomes. Driver diagrams show the link between the overall goal and the specific actions or initiatives that are needed to achieve it.

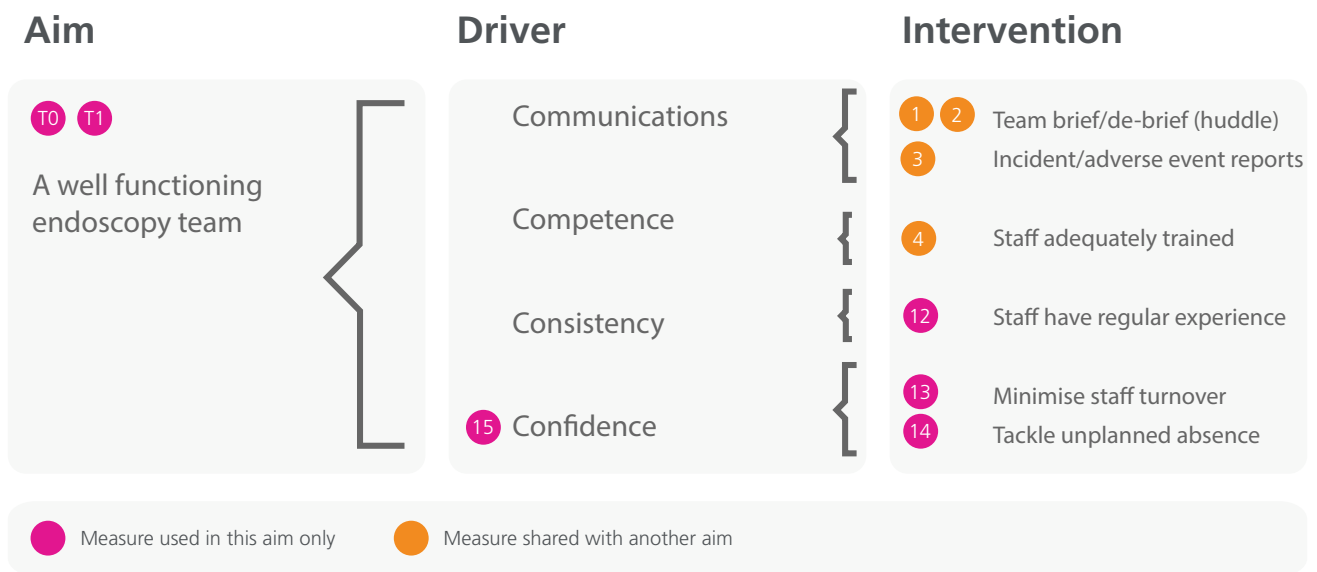
We have included a number of measures – but you should not attempt them all at once. Experience with the field test sites has shown you should track the measures linked to the overall aim in each domain. There are seven of these; you should select from the rest depending on the areas you have decided to work on. You may also want to create further measures of your own.

Work on the principle that every intervention you work on should have some measurement attached to it.

Driver diagram

The driver diagram demonstrates how you can think about and decide what changes you may want to test.

Team working driver diagram



T0 Engagement survey score

T1 Staff survey - full survey of staff

1 Number of 'huddles'/brief-debrief (or percentage huddles)

2 Number of time-outs

3 Number or percentage adverse events discussed at huddle/team meeting/user group

4 Compliance with mandatory training/appraisals/GRS standards

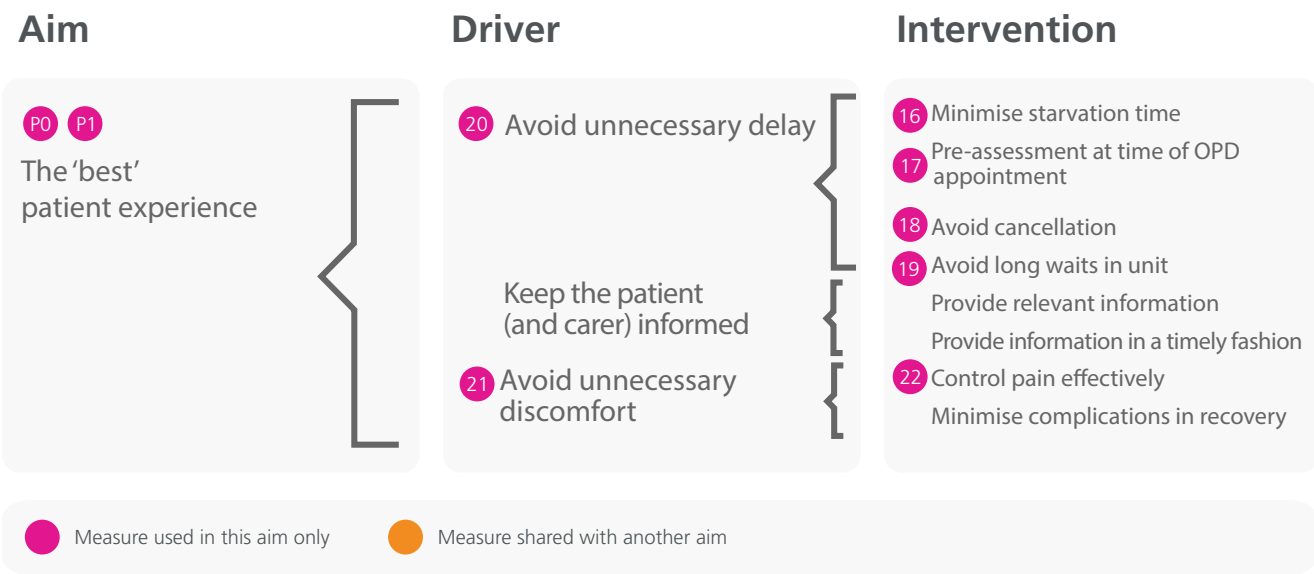
12 Proportion of time spent in each area

13 Staff turnover

14 Sickness absence

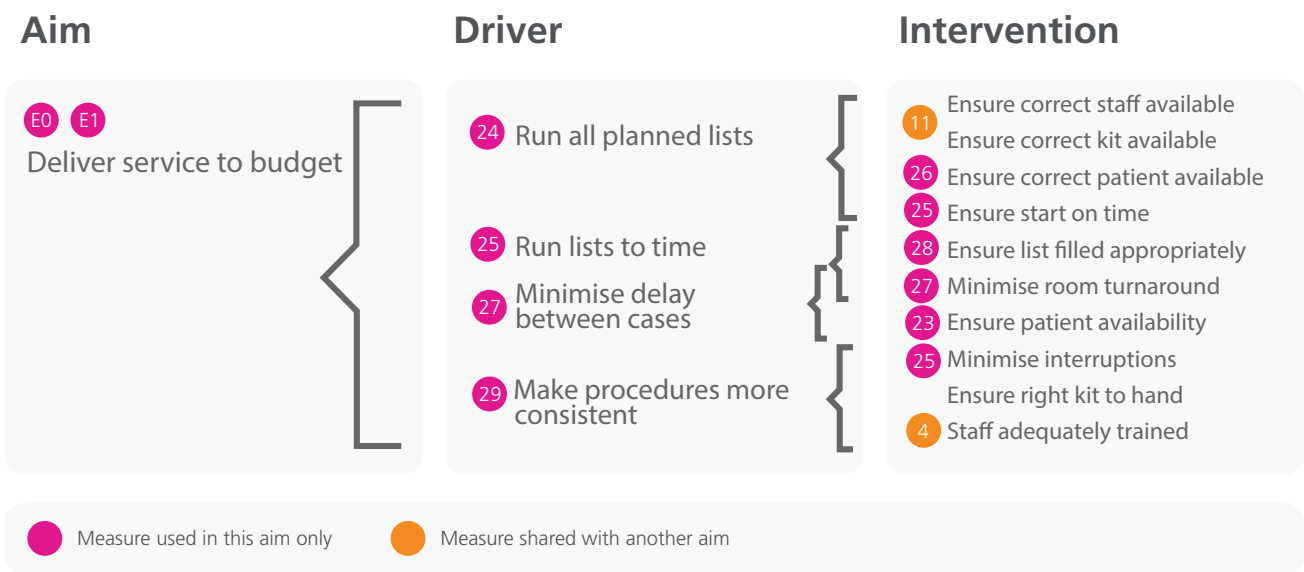
15 Staff survey - regular, 3 minutes only

Patient experience and outcome driver diagram



- P0 Patient experience score (from survey or JAM – just-a-minute - cards)
- P1 Family and Friends score
- 16 Average time patient spent starved
- 17 Number or percentage patient pre-assessed at OPD
- 18 Percentage cancelled patients
- 19 Average and longest wait time on unit
- 20 Average and longest recovery delays - wait time to go home
- 21 JAM cards
- 22 Pain scores

Efficiency driver diagram

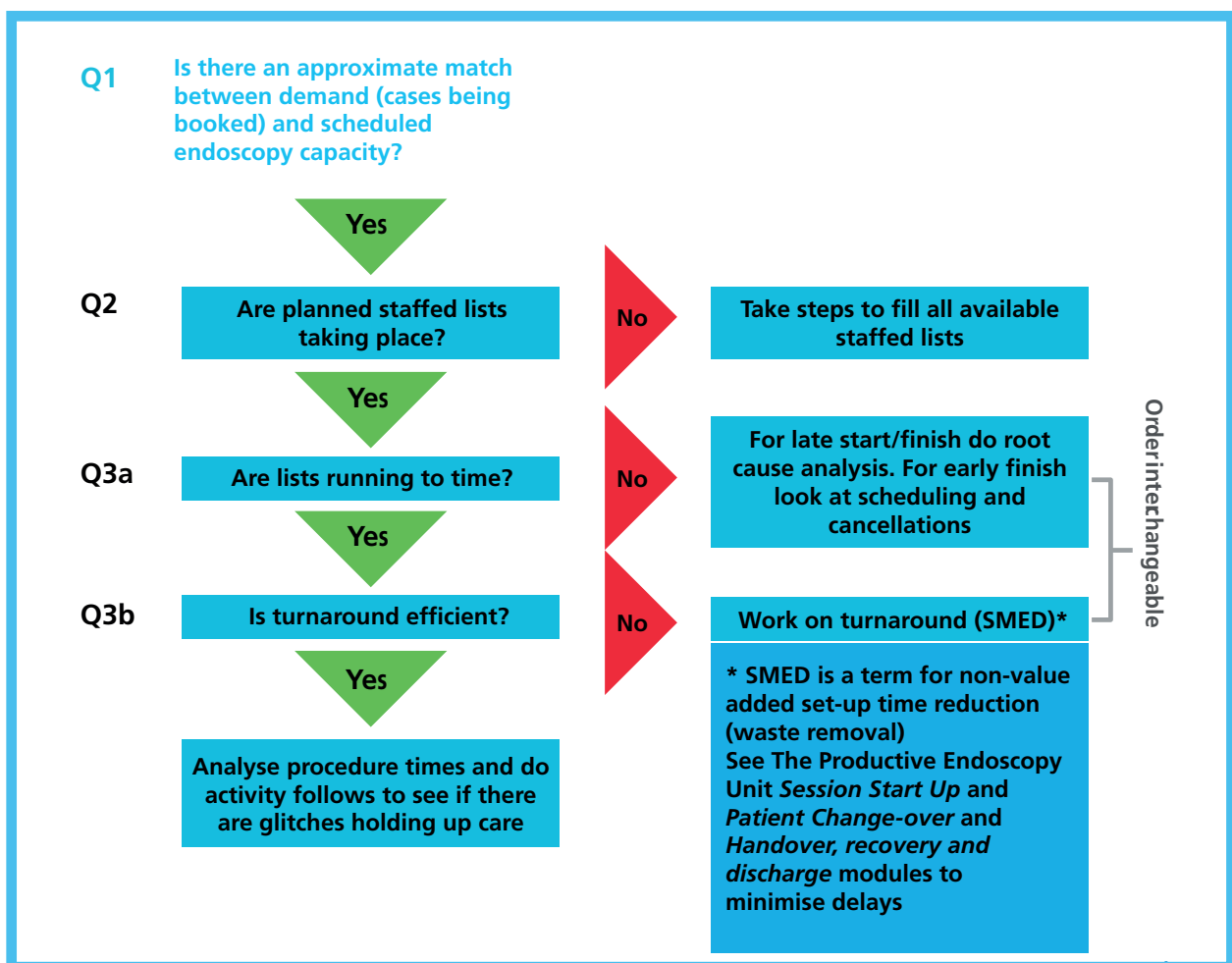


- E0** Percentage value-add time
- E1** Lost income
- 4** Compliance with mandatory training/appraisals/GRS standards
- 11** Percentage correct kit to hand
- 23** Percentage patients inadequately prepped
- 24** List plan verses actual
- 25** Delays - late starts/finishes/interruptions
- 26** Number or percentage cancellations
- 27** Turnaround time
- 28** Percentage room utilisation
- 29** Number or percentage standard work sheets and SOP's



How to prioritise interventions in efficiency and value

This flow diagram suggests how you can prioritise your improvement efforts to get the biggest impact depending on your current local situation.



Appendix 2 – Suggested measures

This table shows the measures that were developed and used by the test sites during the testing of The Productive Endoscopy Unit. The measures are ordered according to the aim they relate to, they also show which module they were used in.

They provide you with examples and ideas of measures that you could collect; you could use some of the suggested data or completely develop your own set. Although we do not dictate which measures you should collect, we do suggest that within your set of measures you include at least one executive level measure and one other measure for each of the four measures of improvement:

- **Safety/quality** e.g. reduced defects, identifying potential errors before they occur
- **Timeliness/delivery** e.g. improved turnaround times, reduced waiting
- **Cost/value for money** e.g. removal of waste, reduction in inventory
- **Morale/staff experience/patient outcomes** e.g. reduced overburdening for staff, improved patient experience.

Example measures (quick reference table)

The table below shows the measures that were developed and used by the test sites during the testing of The Productive Endoscopy Unit. The measures are ordered according to the module they relate to. They provide you with examples and ideas of measures that you could collect; you could use some of the measures below or completely develop your own set.

TOP TIP: You may also like to include in the measures table:

- The data source
- Who the measure is for?
- Who collects it?
- The frequency of collection
- The expected trend
- How the data will be displayed.

TOP TIP: Many measures can be shown on a run chart but would benefit from a supplementary Pareto chart e.g. we can show how many late starts each week on a run chart but we would have a better understanding of how to improve this if we had a Pareto chart showing the biggest reasons for those late starts.

The Productive Endoscopy Unit - Suggested measures	
Module	Module
Executive Leader's Guide (high level measures)	Problem free endoscopy Well functioning endoscopy team Delivering plan to budget-session utilisation, lost income, agency staff A good patient experience
Programme Leader's Guide	Avoiding mistakes Avoiding delays Good communication - team and patient Good competency levels A good patient experience - avoid unnecessary discomfort
Knowing How We Are Doing	Increased positive patient experience Decreased waiting times Increased percentage of ideas implemented Increased staff morale Comfort scores Caecal intubation rates Clinical incidents Delays DNAs/cancellations Training and development/competencies Staff turnover/sickness rate Percentage room utilisation Turnaround times Changeover times

Well Organised Unit	Decreased waste - measure for each reduced/removed e.g. reduction in duplication (percentage, time, number of steps) Reduced repetition Increased right first time Reduced waiting (for scopes/procedures/staff/searching) Reduced motion Reduced transport Reduced inventory Reduced time wasted ordering stores Increased safety - all things in right place
Operational Status at a Glance	Determined by one to two key measures from each module Percentage of sessions running with safe staffing levels Percentage of sessions starting on time Percentage of sessions finishing on time Waiting times - diagnostic procedures Waiting times - surveillance procedures Number of two week wait referred patients seen on time Room doors - session run status Number of defects in each area
Team Working	Near misses (reduced/percentage identified) Reduced mistakes/defects Increased patient facing time Increased percentage of ideas implemented Increased staff morale Reduced complaints received Increased plaudits received Increased hand-washing compliance Increased training/competencies - admin/nursing/medical Staff sickness rate New roles developed (targeted measures)
Scheduling	Reduced dropped lists Increased points on a list Decreased waiting times Increased pooled lists/cross cover Decreased financial implications of lost time Increased percentage of surveillance patients seen on time Increased percentage of diagnostic patients seen on time Increased percentage of patients participating in BCS Reduced DNAs Reduced cancellations
Referral Management	Decreased DNAs/cancellations Reduced defects on referrals Decreased vetting time Reduction in inappropriate referrals Percentage of surveillance patients seen on time Percentage of diagnostic patients seen within six weeks Percentage of two two week wait patients seen on time

Pre-assessment and Patient Preparation	Increased number of clinical incidents reported Decreased number of clinical incidents Increased number of patients receiving medication on time Increased percentage of patients offered throat spray/entonox Increased percentage of patients having pre-assessment at first OPD Increased percentage of patients ready on time (no delay to room lists) Reduced cancellations due to poor patient preparation Increased positive experience of patients prep routine Percentage compliance with WHO checklist Increased uptake/confidence in telephone pre-assessment Percentage nurse consent Percentage nurse cannulation Reduced patient waiting time pre-procedure
Session Start Up and Change-over	Reduced changeover time Increased utilisation of sessions (percentage) increased percentage session starting on time Decreased financial implications of lost time Reduced reasons for late starts Percentage compliance with changeover checklist Pooled list v named list
Consumables and Equipment	Decreased inventory held Increased stock control Reduced ordering time Reduced cost per unit test Reduced missing items Reduced steps in ordering procedure Reduced inventory held Reduced stock-take time
Handover Recovery and Discharge	Increased positive patient experience Increased compliance in completing amended WHO checklist Number of complete procedures performed Reduced pain scores Reduced time patient spent in the unit Increase in number of patients leaving with results/next steps booked Reduced number of errors from wards

Appendix 2 – example measures

Although we do not dictate which measures you should collect, we do suggest that within your set of measures you include at least one executive level measure and one other measure for each of the four programme aims:

- **Safety** e.g. reducing avoidable harm
- **Effectiveness** e.g. right first time, every time
- **Experience** e.g. of users and staff
- **Productivity** e.g. removal of waste.

As well as additional measures to link to the NHS Outcomes Framework, Trust Values and the 6C's:

- Prevention
- Innovation
- Spread.

Productive Endoscopy Measures

	Safety	Effectiveness	Experience	Prevention	Productivity	Innovation	Spread
Definition:	Reducing avoidable harm	High quality clinical outcomes of care. These are dependant on the right people, right time, right place, right first time every time.	Placing service users at the centre of their care. This includes staff working within health and social care as well as those who use services.	Primary prevention. Working to prevent ill health. Secondary prevention. Working to prevent the condition from becoming worse.	Is defined as: process efficiency (ie waste removal, reducing the causes of waste)	Innovation is the context of this template means pathway, process or workforce.	Scaleability - roll out across the department/ organisation
Criteria:	Levels of serious untoward incidents. Levels of violence and aggression. Levels of clinical incidents. Levels of potentially preventable complications. Hygiene and safeguarding standards.	Compliance with: National strategies. National frameworks. Evidence base. Royal College Professional Societies. NICE guidance. Care Quality Commission JAG accreditations GHS/PPAT	Responding to the patient carer perspective to improve quality. Maintaining privacy and dignity. Staff morale is expected to directly influence good patient care	Increasing access to prevention services. Developing primary and secondary prevention strategies. Partnership working with Social Care and third sector Managing risk	Number of process stage removed. Pathway re-design. Reduction in waste. Space utilisation. Patient flow. Reduce utilisation. Matching Capacity and Demand.	New ways of working. New models of care. Pathway re-design. Process re-design. Spread implication. Adapting existing processes into new areas. Involving patients and carers. Sustainability Pilot site testing of Productive Endoscopy modules. Innovation sites.	Application of generic learning. Application of lean principles across the department. Roll out of Productive Endoscopy modules across all clinical GI areas. Spread to respiratory services (bronchoscopy) and urology services (cystoscopy)
Measures used in your project:	No. of surveillance patients having their appointment on time. Percentage of sessions running with safe staffing levels. Percentage compliance of completion of unit paperwork for each patient episode.	Staff sickness rates. No. of completed procedures performed (percentage of total number going through unit).	Staff morale (good day/bad day). Patient satisfaction - Friends and family test scores, comment cards, plaudits v complaints.	Handwashing audit compliance. WHO checklist compliance.	Room utilisation rates. (start/stop audit). No. of points booked/done per session. No. of dropped sessions.	Outpatient slots saved by implementing STT. Potential costs saved in OPD appointments. Home enema rate for flexi sigmoidoscopy	To be completed towards term of project
Link to organisational goals/values:	Best Care, Best People, Best Hospital	Quality of Care	Respect and Dignity	PHT Values	No waste/Value For Money	Working Together	Best Care, Best People, Best Hospital
Link to Outcomes Framework:	Domains 1, 2 & 5	Domains 1, 3 & 5	Domain 4	Domains 3 & 5	Domains 1, 2 & 3	Domains 3 & 4	Domains 1-5
Link to Competence in Practice:	Competence	Commitment	Compassion	Communication	Care	Courage	BC's
Link to Productive Endoscopy Modules:	Knowing How We Are Doing Operational Status at a Glance Team Working Referral Management Pre-assessment and Patient Preparation Consumable and Equipment Handover, Recovery and Discharge	Knowing How We Are Doing Operational Status at a Glance Team Working Referral Management Handover, Recovery and Discharge	Knowing How We Are Doing Operational Status at a Glance Team Working Pre-assessment and Patient Preparation Handover, Recovery and Discharge	Knowing How We Are Doing Operational Status at a Glance Pre-assessment and Patient Preparation Handover, Recovery and Discharge	Knowing How We Are Doing Well Organised Unit Operational Status at a Glance Team Working Scheduling Session Start Up and Changeovers Consumables and Equipment	Knowing How We Are Doing Team Working Referral Management Pre-assessment and Patient Preparation	Executive Leader's Guide, Programme Leader's Guide

Appendix 3- Measures checklist

Part one: Measure set up and linkage

Name of the measure:
Does it fit with an organisational objective? If yes, how?
Does it relate to one of the driver diagrams? If so, from what level?
Does it relate to one of The Productive Endoscopy Unit modules? If so, which?
How does it fit with the outputs from the visioning workshop?
Who is the person responsible for ensuring that the data is collected, analysed and reviewed?

Part two: Measure definition

Measure definition	What is the definition? <i>(spell it out very clearly in words)</i>
	What data item comprises the numerator <i>(the top number in a percentage calculation)</i> ?
	What data item comprises the denominator? <i>(the bottom number in a percentage calculation - some measures do not require one)</i>
	What is the calculation to be done? <i>(some measures do not require one)</i>
Goal setting	Are you setting yourselves a numerical goal? If so, what is it?
	Who is responsible for setting this?
	When will it be achieved by?

Part three: Measurement process

Collect	Is the data available? (<i>Currently available, available with minor changes, prospective collection needed</i>)
	Who is responsible for data collection?
	What is the process of collection?
Analyse <i>Calculate measure and present results</i>	What is the process for presenting results e.g. <i>enter data in extranet, create run chart in appropriate software, generated automatically from endoscopy information system?</i>
	Will you present this data as a run chart or a pareto/bar chart?
	Who is responsible for the analysis?
	How often is the analysis completed?
Review	Where will decisions be made based on results? (<i>i.e. at what meeting or forum?</i>)
	Who is responsible for ensuring action is taken to implement those decisions?
	Who is responsible for taking action?

Appendix 4 – Review meeting template

Review meeting guidelines	
Where	When
Objectives <ul style="list-style-type: none"> • Follow-up actions from previous meeting • Understand changes in performance since last meeting • Discuss issues, identify next steps and assign responsibility <p>Who do I contact if I won't be here or I can't update my chart?</p>	Participants and roles <p>Chair</p> <p>Others</p>
Inputs <ul style="list-style-type: none"> • Agreed aims • Updated measures data • Actions from previous week 	Outputs <p>Agreed actions and responsibilities</p>
Agenda <ol style="list-style-type: none"> 1. Welcome 2. Update on actions from previous week 3. Review charts and discuss changes since last week 4. Agree what actions to take to improve the measure 5. Decide who will take each action and by when 6. Confirm attendance for next meeting 	<p>1 min</p> <p>5 min</p> <p>5 min</p> <p>5 min</p> <p>5 min</p> <p>4 min</p>

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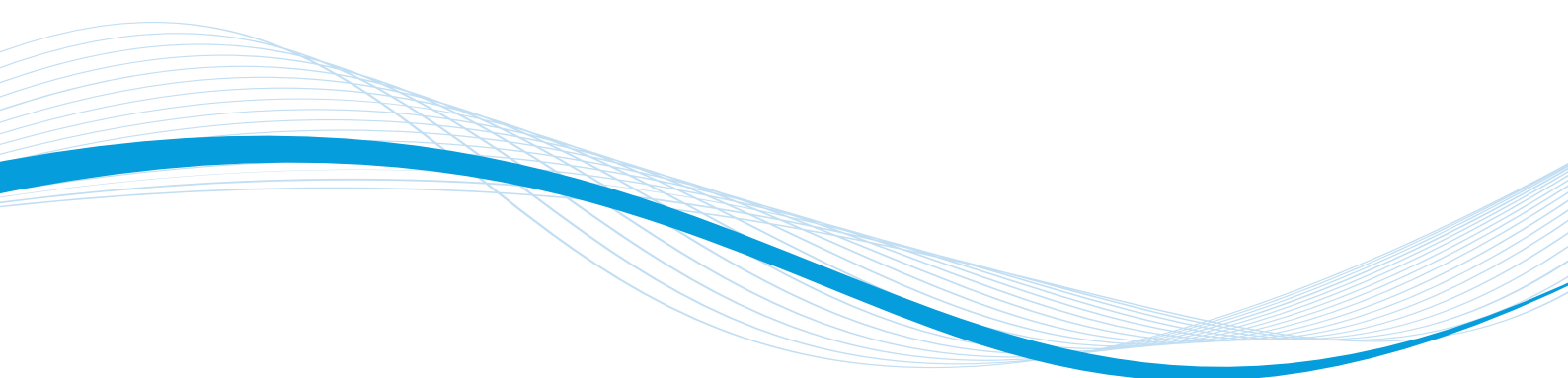
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