Institute for Innovation and Improvement



High Impact Actions for Nursing and Midwifery The Essential Collection



Created by a cast of thousands in the NHS

Edited by: Liz Ward Mark Mugglestone Lynne Maher

Foreword

Nurses and midwives are the largest single profession within the NHS – and one of the largest workforces in the world. It is easy to see why we are so often considered to be at the forefront of leading improvement.

Providing high quality care for patients will always be a key priority for nurses; but so often doing the 'day job' can become all consuming, we can lose sight of the fact that part of that job is to identify and deliver improvements in care for our patients.

Everyday there is a palpable enthusiasm within the NHS to make care better for patients. Nowhere has this been better illustrated than when we launched the High Impact Actions for Nursing and Midwifery. Within three weeks, more than 600 frontline submissions had been received from nurses and midwives and organisations who were keen to share their successes.

From these submissions, a large group of experienced nurses and midwives identified the eight High Impact Actions that are outlined in this document. The Essential Collection incorporates detail about the scale of the opportunity for each High Impact Action in terms of improvements to quality, outcomes and patient experience. This is supported by case studies from frontline nurses and midwives who tell us, in their own words, how they have achieved the fantastic improvements in quality, patient experience and cost.

Nurses today recognise that cost and quality are not mutually exclusive and they also recognise that they have an important role to play. They know that higher quality care is often more productive and nurses and midwives are in an ideal position to lead on the work that will deliver both. Nurses can see how they can change things to make them better for patients. This often means reducing waste and removing unnecessary – and frustrating – repetition from the system.

Many organisations and their staff have been generous, not only with their time in helping to put this collection together, but also in sharing their ideas and materials for you to take away and transfer into your own local context.

It is clear from these case studies that there is no single recipe for success when it comes to improvement, but there are some key ingredients, such as highly engaged leadership and frequent, effective communication and measurement. We can also see that often it is small changes that have the biggest impact on patient care.

What is clear from this Essential Collection is that the opportunity is enormous; nurses and midwives are leading the way and this is already resulting in better care at lower cost. I am proud of what has already been achieved and confident that you have the commitment to continue to focus on what's best for patients, spreading innovation and good practice across the NHS.

Dame Christine Beasley Chief nursing officer



There's no doubt that every one of the High Impact Actions is absolutely crucial. For me as a nurse, they are fundamental and we need to get them right; for most of us they are nothing new, but delivering them all the time is where people need the help and support; we need to get better at doing what we know is the right thing consistently, and at sharing what we are doing across other specialties and across other organisations.

People can become hung up on the need to come up with new ideas, but it's often about doing the basic things right. Only then will we deliver the patient care we need to safeguard our patients, the profession and the NHS as whole.

Our profession has embraced technology and new responsibilities but we need to remember the fundamentals of what makes us nurses. That's why being involved in, and leading this piece of work is important to me as a nurse and should be just as important to you.

This is a call to action for all nurses and midwives to be fully accountable for the care they give to patients – it could be your Dad.

Katherine Fenton

Chief nurse Director of clinical standards and workforce NHS South Central



"I was familiar with the High Impact Actions programme and knew that it was possible to make a huge difference by introducing small, but significant changes...this sort of programme is fundamental to effective nursing care."

Colin Iverson Tissue viability specialist, Kettering General Hospital NHS Trust Nurses at all levels of the profession, from the most junior to the most experienced director, have the potential to bring new ways of working to the NHS to improve patient care. I am privileged to be in a position where I regularly see this happening as I work with frontline teams. The problem we have been grappling with is that, although throughout the NHS we see wonderful examples of good practice, this is not being systematically spread and adopted across all practice.

The High Impact Actions for Nursing and Midwifery has highlighted nurses and midwives as a group of passionate healthcare staff who have a unique ability to transform care for millions of patients by increasing quality, improving patient experience and reducing the cost of care. I want to call all nurses and midwives to do just this; learn from the case studies, adapt them for your local context and implement them into your practice. Go on, I know you can.

Dr. Lynne Maher

Interim director for design and innovation NHS Institute for Innovation and Improvement

"I feel we are making a difference; sometimes it's only a small difference, but to a young person that can be a big difference."

Claire Webber Urgent care team leader, Sussex Partnership NHS Foundation Trust



"The High Impact Actions are a fantastic opportunity for nurses. They are a chance to show what a difference we can make. This really supports the Quality agenda — that's what this is really all about for me. Patient safety is not a nurse's job or a doctor's job, it's everybody's job. I am there as a resource to give advice, unblock any problems and help speed up the process."

Paula Showbrook

Chief nurse and director of infection prevention, Winchester and Eastleigh Healthcare NHS Trust

High Impact Actions for Nursing and Midwifery – The Essential Collection

Congratulations, you have taken the first step. It is great that you have been interested enough to get a copy of this Essential Collection and even better that you are reading it. We know you are incredibly busy, and we have tried to design this collection so that it works for you. The aim of The Essential Collection is to inspire you with some of the ways that staff – just like you – have transformed care for their patients. There are some brilliant examples of how really simple changes have made a big difference to the quality, experience and safety of patient care, how they have improved the experience of staff delivering that care and how they have saved money for the NHS.

The High Impact Actions are not brand new – they represent areas that we know often cause frustration to nurses and midwives as they strive to deliver the best quality care for their patients. They are areas for which there is evidence of inefficiencies in care provision and poor patient experience.

Nurses and midwives represent the biggest workforce in the NHS. We are closest to our patients on a daily basis, we are coordinators of care and are the patients' advocate. We can make a difference. Whilst NHS organisations have been given a mandate to ensure that decisions are made at the right level in the system and this means as close to the patient as possible, nurses and midwives are central to achieving this agenda. We all know that the NHS, like many other health care systems, is facing huge challenges. The economic situation means that, although the NHS is in a better situation than other parts of the public sector, making large cost savings is essential. Nurses and midwives are well placed to lead the changes that are required and to do this swiftly. A few nurses and midwives may still think that money is someone else's business, but those that think this are, quite frankly, out of touch with reality - opting out isn't an option. Addressing financial inefficiencies is a key personal, professional and moral responsibility.



Nurses and midwives regularly deal with the frustrations of waste and, in many instances, we have come up with innovative ways to get around these problems in our own clinical areas. Because of the scale of the current challenge, however, it is no longer enough just to come up with our own small innovations. The NHS needs these, but, in addition, we need ensure that they are systematically applied if we are to achieve the highest guality, most efficient standards of care that our patients need and deserve. It is not enough for individual wards or clinical areas to be high performing in a few elements of care. We need to be consistently high performing in all elements of care. The pockets of good practice we see in the NHS need to spread across and be adapted and adopted by all. Nurses and midwives are skilled coordinators of patient care - these skills need to be harnessed to coordinate and spread improvement and change. As leaders, we can mobilise other professions. This means stepping up to the challenges ahead, being recognised as influential leaders who can transform quality, patient experience and costs for the benefit of the NHS and its patients.

The case studies in this collection demonstrate the impact that innovations driven by frontline staff have already had. They show how the commitment, enthusiasm and determination of staff can deliver better quality care at a reduced cost. Leadership isn't just about senior leaders, it is about everyday leadership provided by all levels of nurses and midwives. We all need to take responsibility in order to ignite collective action, mobilise others and inspire the changes we want to see. To safeguard the future of the NHS, we need to be willing to make a stand, to challenge the status quo and tackle these tough issues on behalf of all patients.



"Staff have developed an understanding of the impact of sickness absence. It's not just about a shift, it's telling people: 'you do a good job here and we value you and we need you here and miss you when you are not here."

Sally Hughes Clínical team manager, Hertfordshíre Partnershíp NHS Foundation Trust

> "We have taken something that we are passionate about, but that can be seen as uninteresting to people, and made it interesting by getting people up and motivating people to think differently."

Paula Tucker Matron, Brighton and Sussex Hospitals "The Biggest impact we have seen on the ward is staff taking Ownership of the issues, taking responsibility for addressing them and taking responsibility for improving them."

Naomi Dickson Modern Matron, East Kent Hospitals NHS Foundation Trust

Getting started: how The Essential Collection will help

The High Impact Actions for Nursing and Midwifery were developed following a 'call for action' which asked frontline staff to submit examples of high quality and cost effective care that, if adopted widely across the NHS, would make a transformational difference. Nurses and midwives responded by submitting more than 600 examples in less than three weeks. The Essential Collection aims to highlight just some of the stories behind those submissions by providing details not only of what was done, but also 'how they did it'. These examples are intended to provide illustrations of good practice which you may not already have seen. Most importantly they are examples of how real people have made a real difference. The Essential Collection is not designed to be tell you 'how to' make the changes; but it does signpost you to some of the many excellent resources already available that relate to the areas identified within the High Impact Actions.

Sometimes improvement needs to be radical, but often you can achieve radical change by taking small, simple steps which are then widely adopted. It is these two things together that can lead to massive improvements across the NHS.

With all of the case studies we think there is something interesting, whether it is the approach taken, the results that have been achieved or the way staff have been engaged. Often the improvements will be linked to other initiatives such as The Productive Ward: releasing time to care. One of the most notable discoveries was the wide variation of measurement. Some had little or no tangible measures, some had measured the impact of their work on quality but hardly any of the case study submissions had combined these with cost benefit or return on investment data.

For some of the examples highlighted within this collection, we have worked with health economists to calculate and identify cost benefits. Now, perhaps more than ever in NHS history, we need to demonstrate a whole range of benefits from our improvement work including quality, patient experience and cost. The Essential Collection has been specifically designed to provide a range of material which we hope will help you to adopt and implement some of these improvements into your own local context. There is a separate section dedicated to each of the eight High Impact Actions. Within each of these sections you will also find:

- written and video case studies drawn from local staff across different health care settings. The videos are included as a DVD within this document and they are also viewable on the NHS Institute website; www.institute.nhs.uk/hia
- details of other useful resources that you can review if you want more information on any of the High Impact Actions
- a range of improvement tools and tips
- specific sections on measurement and return on investment calculations for some of the case studies.

There is a wide range of additional material that supports the essential collection at www.institute.nhs.uk/hia. This material includes:

- an online opportunity estimator that enables you to calculate the potential cost savings for your team or organisation related to making improvements in the High Impact Action areas
- additional resources provided by the case study sites that can be downloaded and shared
- further detail and the models for the return of investment calculations in 16 of the case studies.

To use the High Impact Actions: The Essential Collection please consider the following points carefully.

- Learn from what others have done, but remember that all organisations are different ands one size may not fit all. Think about how you may need to tailor things to better suit your local circumstances.
- Sustainable change needs real commitment. Simply cherry picking ideas and trying to implement them without robust plans, support and alignment can lead to difficulties.
- Measurement is crucial in order to demonstrate the impact of your work – you cannot afford to miss it out.
- Remember 'We all have something to give and we all have something to learn'.











Look out for these icons which will indicate where you can find further information and support.

Making it happen

Throughout the Essential Collection we have identified a range of improvement tips that link to all of the themes in the preceding pages. We have also provided details of where you can go to find more information.

In this section we are specifically highlighting two of those themes, communication and measurement, as they are critical components to success.

Within the time of our daily shift pattern we are often bombarded with information including reports, best practice guidance and research findings. It is indeed difficult for anyone to effectively wade through all of these and many just do not 'hit the radar' of busy people. The same can be said when a new improvement initiative or project is suggested. We often hear a sigh of dismay when staff, who are already working their hardest, hear the latest new idea that needs to be implemented.

However, in order to care for our patients effectively and efficiently, it is vital that we, as a profession, feel able to embrace the fact that in order to meet the needs and expectations of our patients we need to continually improve our services to them.

Sensitive and effective communication is vital to any improvement work and critical if you are to fully engage the people who currently deliver the service that is the subject of the change.

Most of the case studies featured within this collection have used good communication methods as a key theme of their success, often using several different methods. For example, one trust encouraged better urine measurement of patients by placing posters on the back of staff toilet doors; its infection control team carried out trolley dashes through the wards, giving out goodies to get people talking about catheter care; and another trust designed a giant floor game as a radical new way to communicate important information and to make learning fun. Elsewhere, staff briefing days run by the chief executive provide an opportunity to 'ask the boss'.



Social movements are very much about communication. 'Frame to connect with hearts and minds' means - think about how you are communicating the changes you want to see. We often describe our initiatives in very 'technical' language – yet most people are moved to act when they feel an emotional connection to what is being described. Think about how you use stories of patients when describing situations to friends or colleagues. Describing your improvement effort so that it engages with others at an emotional level is a powerful way to make change happen.

We can make communicating change part of the day job

Communication can be challenging, especially in large organisations. Many NHS staff are able to access a range of training and study days throughout the year which provide the essentials around communication methods. We are not able to reproduce all of the learning you may need within The Essential Collection but would like to highlight a few top tips.

• When communicating, think about how the people you are aiming the message at like to receive information. Do they prefer stories, graphical representation or text for example? Try to make sure that you use a range of methods or target your method towards a specific group with a focus on what style they prefer.

- Sometimes it is good to try something radically different just to gain attention as in the trolly dash example that we previously mentioned.
- Use a range of existing channels such as newsletter, notice boards and intranet alerts.
- Use different channels such as photography, a story telling session with patients or staff or a stall in a main corridor or staff area.

The content and message within any communication needs to be very clear. It can be helpful to think of describing the who, the what, the when, the where and the why you want people to get engaged with the work. Sometimes you can also add 'how' in terms of how they can contribute and how to make the change, although it is always good to leave room for staff to contribute with ideas about 'how' themselves.

Effective communication happens frequently and as a minimum before, during and after any initiative, however small. Creating energy and celebrating successes along the journey leads to a higher level of engagement.

The following case study shows how Leeds Teaching Hospitals NHS Trust has communicated effectively. It developed a patient care and safety day, bringing together senior frontline nurses with the chief and deputy chief nurses, divisional nurses and nurse consultants to focus on key issues of patient experience and safety.

Case study: Leeds Teaching Hospitals NHS Trust





Creating a communication pathway

Leeds Teaching Hospitals NHS Trust identified its frontline senior nurses as the key to disseminating the latest information about the trust. All senior sisters and charge nurses come together for a day with the chief and deputy chief nurses, divisional nurses and nurse consultants to focus on key issues of patient experience and safety twice a month.

Setting the scene

Leeds Teaching Hospitals NHS Trust is amongst the biggest trusts in the UK and includes the largest teaching hospital in Europe (St James's University Hospital). The trust provides acute hospital services for the population of Leeds and the surrounding area and acts as a regional centre for a number of specialist services, such as cancer and cardiac surgery. In total, the trust employs around 14,000 staff across six main sites, treating more than a million patients every year, with a budget of around £930 million.

The approach

Patient care and safety days bring together the nursing director, her deputies and the senior nursing team to exchange information and work together to support continual improvement. The morning session consists of an update of things that have been happening including sharing important achievements. During the afternoon sessions, smaller groups work together on key areas of patient care, including infection control. "We needed good, consistent information, not a lot of disparate messages. We knew there were really good pockets of practice and areas that needed input. It's about sharing practice, about everybody being on the same page at the same time. When you've got your head down working, you are not always aware of the drivers and don't understand why audits are carried out and what happens to the results."

Gill Chapman Senior nurse



How they did it

A regular communication pathway not only keeps ward staff up-to-date with the latest practice, but it also fosters leadership, embeds consistency of care, identifies issues and concentrates efforts to rectify them.

In 2009, the senior nursing team introduced the patient care safety days programme. These bi-monthly events include senior nursing staff (band 7), matrons and allied health professional (AHP) staff. Subjects covered include: adult safeguarding, falls prevention, pressure ulcers, nutrition and leadership. Other subjects are often suggested by attendees and have also included non-clinical items.

The patient care safety days include a combination of lectures and group workshops. Each practical session is designed around the question: 'What can your team walk out of here now and do?' Staff have protected time and can do a range of different things on the same day, providing a real snapshot of where the trust is on a particular subject.

Staff take the learning and adopt it into their own working areas. Sometimes this includes also undertaking audits to help identify progress or challenges faced by the organisation. Matrons help with the formal monitoring process, help ward staff to plan and deliver the improvements and help to share and celebrate the successes widely across the organisation.

This idea was in response to a challenge the trust was facing with high rates of meticillian-resistant Staphylococcus aureus (MRSA) bacteraemia and Clostridium difficile infection (CDI). The trust is spread across six sites and 250 clinical areas and consists of around 6,500 nursing staff. It needed to develop a communication mechanism that could overcome the challenges that their environment posed and resulted in communication that was reliable, relevant, consistent and comprehensively delivered.

The trust recognised that the best way to communicate was to bring senior nurses together at the same time. But, there was resistance and concern that taking staff away from their clinical areas would lower quality of care. The answer was to ensure that those who attended learned something specific and worthwhile to take back to their clinical areas. "Band 7 staff – the team managers, sisters and charge nurses – are key to the delivery," says Gill Chapman, senior nurse, who helped develop the days. "Improvement is about having targets and drivers, but if these staff are not on board at a local level, it's not going to happen."

"We wanted staff to see this as our investment in them – and make it a two-way communication. The day is very much about the senior nursing team being highly visible in the ward areas. It helps to show we understand the challenges they face and are working with them."

Through the patient care safety days, the trust identified that staff knowledge of aseptic techniques was poor. It put 4,000 staff through training within three months to achieve competency. The days have also helped to introduce new tools and policies across the trust - a risk assessment tool was introduced for pressure ulcers virtually overnight. External speakers have included patients and carers, and the team is keen to harness the power of storytelling.

Chief nurse, Ruth Holt has been key to the success of the events. She attends and kicks off every event, sharing success stories, such as a specialist surgery reaching 100 days MRSA-free. She reports key statistics, for example zero cases of CDI in February, updates staff on trust board activities and asks for news to take back to the board.

Her session is designed to support and invigorate staff. Her visibility and familiarity with the nursing staff is inspiring. "The overall aim is communication," she says. "We want to ensure that we are providing the ward teams with the information and messages they need to carry out their duties in the safest way possible. It's about recognising where we have gaps."

The days are constantly being reviewed to ensure success. Attendance is high, with days boasting upwards of 80 staff and many staff coming in from leave to attend. Emma Johnson, matron for endoscopy, breast care and gastroenterology, says: "It's an opportunity to get senior nurses within the organisation together with the corporate nursing team, to focus on the key aspects within the organisation that will improve patient safety. The challenge for me, as a matron, is to release staff from the ward for two days a month so we do have to be creative." "For me, these days are about being able to find out what's happening on a regular basis," says ward sister, Sarah Harding. "I feed back to staff on the ward as fast I can, often on the same day. It's great to put names to faces and know people are there to support you: you know who to get in touch with to ask questions and it doesn't feel as formal."

> "The patient care safety day focuses on issues that effect patients in our organisation. It's our opportunity to provide education and training, share ideas and speak to staff. It's also a forum for people to ask difficult questions. It's a vehicle for communication."

Sunning .

0

Juliette Cosgrove Lead nurse for patient safety

Measurement for High Impact Actions

Why measurement is important?

Nurses and midwives measure things every day, even though we probably don't think of it in that way. We collect all kinds of data including clinical observations or test results to help diagnosis, hand hygiene audits to check compliance against protocols, and sickness and absence recording as part of operational management. We don't just collect all this data, we use it to help us make decisions. This is the most important thing to remember whenever thinking about data and measurement, it can feel daunting and difficult but actually we do it all the time. Without having the appropriate data it can be impossible to make the decisions that are necessary. Good measurement in any situation enables better decisions to be made.



To help ensure the availability of quality information, from April 2010 onwards healthcare providers delivering services on behalf of the NHS, starting with acute trusts, will be required to publish quality performance in an annual 'quality account'. These will include any additional information that will help to inform the public about the quality of the services provided.

NHS Operating Framework 2009/2010 for Quality

High Quality Care for All introduced the concept of reflecting quality in providers' income. The Commissioning for Quality and Innovation (CQUIN) payment framework to ensure that quality improvement and innovation form part of commissioning discussions. Carefully considering what tools you need and using them with the right change approaches should help you to improve quality, allow you to spend quality time with your patients and show the impact you are having at the point of care.

The Nursing Roadmap for Quality

But we haven't got time to collect more data...

Although we do routinely collect and use data in the NHS, we also collect lots of data that we never use. It can feel like we just keep measuring more and more things that are not useful to us in practice – but that just feed the 'machine'. It often feels confusing and frustrating with a mass of changing directions and the endless annoyance of competing initiatives. The data that we do collect, is rarely given back to us in a useful way - so it can feel like a real burden.

In this brief section we want to help you to understand 'measurement for improvement', showing you how good measurement is an essential part of any improvement effort. It will also guide you to other sources of information that will help you in your practice. Measuring the services we deliver and the improvements we make is becoming even more important. Being able to understand both the quality and cost of patient care and the improvements you are making is essential.

This section on measurement is split into three parts. In part one we show you a tried and tested way of structuring the changes you want to make. It's called the Model for Improvement. We also introduce you to the cause and effect diagram - often referred to as a 'driver diagram'. This shows pictorially how all the changes you might want to make link together. In part two, we take you through the **seven steps to measurement**. Follow these simple steps and really get the benefit from your data. Finally, in part three, we ask you to consider the financial aspect of your work on the High Impact Actions. We show you how to go about calculating the return on the investment of your time and resources.

The guide concludes with a real-life example of how measurement is being put into practice along with references to further information.

Part one: The Model for Improvement

It is often also called PDSA (Plan, Do, Study, Act) or the 'rapid cycle change' approach. The concept was first used in the 1930s within manufacturing industries and began to be used extensively within health improvement programmes from about 1996. It is still one of the most simple but comprehensive approaches to use when thinking about making improvements to the services that you deliver for patients (see The Improvement Guide, Langley & Nolan for a detailed description). It assists teams to be really clear about what they are testing, being able to make and test changes quickly and understand if they actually work in practice. This means that staff do not waste time and effort designing changes that, when placed into the real world, don't work as planned. The three questions at the top of the model provide that clarity of thought and the PDSA cycles provide a way of introducing changes successfully.



What are we trying to accomplish?

The first question guides teams to be very clear their aim. When establishing the aim you should ensure that it is: Specific, Measurable, Achievable, Realistic, and Timebound (SMART). Often people are not specific enough about what the aim is and then struggle to test and implement change. You need to think about the aim of the specific changes you are testing, not the broad aim of the overall improvement programme.

Each of the High Impact Actions has its own broad aim which will require adapting for your specific improvement work.

How will we know that a change is an improvement?

The second question relates to measurement. The **seven steps to measurement** described on page 25 will help you think about what you need to measure in order to understand if your changes are leading to improvements or not.

What change can we make that will result in improvement?

The third question asks what can be done in order to achieve the aim. Throughout this Essential Collection there will be various real examples of changes that have been made in the NHS. By all means think about using these ideas, but make sure you are clear about how they relate to your specific circumstances.

A useful device for helping to show how the different elements are connected - the aims, your interventions and the relevant measures is a 'cause and effect' – or 'driver diagram'. Have a look at the driver diagram opposite. It is taken from the Patient Safety First Campaign for reducing harm from falls. In this example Measure 1 indicates the outcome they wanted to achieve. The other four measures indicate the process or interventions that are needed to get to that overall aim. You can use a driver diagram to help with your project. Go to www.institute.nhs.uk/hia to download a blank template.

The driver diagram links to the questions in the model for improvement as follows:

- Q1 is the aim
- Q2 are the measures shown
- Q3 are the interventions



Part two: The Seven Steps to Measurement

The seven steps to measurement is a process you can go through when thinking about measuring anything. Following the process will help you think about what you are measuring already and what you might need to measure in relation to the High Impact Actions. Use the seven steps to make sure you always know how you are doing. For each of the High Impact Actions you need to be collecting both outcome measures and process measures. This needs to continue even when you think you have made all the improvements that you can make. Why? Because you will need to ensure that you are sustaining the improvements that you've made.

An **outcome measure** reflects the impact on the patient. Many outcome measures relating to the High Impact Actions are already routinely collected as part of the overall performance management for your organisation. Relevant measures and definitions (if applicable) for each High Impact Action are given in the separate chapters on the 'measurement' page. An outcome measure might also be described as your local target. For example, to reduce falls by 50% in the next four months.

A **process measure** reflects the way your systems and processes work to deliver the outcome you want. For example, to achieve my overall aim of 50% reduction in falls I need to ensure that 90% of high risk patients have a falls risk assessment. It is important that the process measures have a clear link to the outcome measure - often this link is provided by published research. Some process measures will also be collected on an ongoing basis. To help you see why both outcome and process measures are important think of this example...

When driving your car you will have an awareness of the speed that the car can go and approximately how many miles you can do before having to fill up with fuel. Outcome measures would be the maximum speed the car can go and the average miles per gallon. Because we know that fuel consumption is higher if you are doing short journeys around town, a process measure could be the % of short journeys compared to long journeys. So you could use these pieces of information to keep a check that your car is working as expected. If something happens to these figures e.g. you can suddenly not go faster than 50 mph, or you need to fill up with fuel more often and your ratio of short to long journeys has been the same as usual - you know there is likely to be a problem you need to fix. When you take the car into the garage – they will link it up to their computer diagnostics and measure lots of other things that will enable them to understand where the problem is. This is very similar to the measurement in the model for improvement – they measure a few key things that help them tweak the engine and fix the problem. It doesn't make sense for you to be measuring all of the detail related to engine management all of the time, as you won't understand it and will just become overwhelmed (imagine the number of dials on the dashboard!). You just need to be aware of the higher level measures so that you know when something may be going wrong.

The Seven Steps to Measurement



"We have 6,000 members of our infection control team – that's every member of our staff."

Duncan Selbie Chief executive, Brighton and Sussex Hospitals

1. Decide aim

Whenever you think about collecting any data you need to be really clear about why you are collecting it and what is the aim. It is easy to collect data for the sake of collecting data and this just adds to the burden of frontline staff. Be really clear that the data will be valuable and will add to your knowledge and help you to make better decisions.

2. Choose measures

Once you have a clear aim you will need to think about what measures may be useful. Think about whether you want outcome measures, process measures, or measures that may relate to some specific changes that you are planning. Make sure you consider all the data that is already being captured and how it might be used. A useful thing to do is just look at any data that is put into a system, written in a book, displayed on the wall or produced in reports - it is easy to forget that you are already collecting something that will be useful. Think of other initiatives that may be happening in your organisation. For example: the Productive Series where good data collection is a key element. There may also be data being collected through Essence of Care work. Don't forget to involve your information department. Often the information department don't supply information unless we ask for it, but if they can understand how it will be used they will be happy to help by providing what information they can. Try creating a driver diagram to help you think through the relationships between different measures.

3. Define measures

Once you have decided what you are going to measure you have to carefully define all the terms so that everyone is clear what is included and what is excluded. Having clear definitions means that the collection and analysis of data will be comparable and consistent over time. In each of the High Impact Action sections we have tried to link to existing definitions that are being used. Adopt these definitions if you think they are useful, but also think about how you might need to adapt them for your local circumstances. It is important to get input from all the relevant people when defining the measures so that you get as much agreement as possible - but also remember that it is often very hard to get full agreement so make sure that you do not get bogged down in definitions to the point that you end up doing nothing. The most important thing is that the definition you use is commonly understood by everyone in your team or organisation who is collecting the data.

You will need to establish who is responsible for the data collection and what the process for collecting it is. You will also need to think about whether when collecting your data, you will collect just a sample or you will be trying to collect 100% of the data. This will depend largely on the amount of data involved and the time it may take collecting the data. If you are sampling, you have to ensure that you choose a sample which is representative of the overall population that you are measuring. For more information on sampling look at the Patient Safety First 'how to' guide

for measurement for improvement. http://www.patientsafetyfirst.nhs.uk

4. Collect data

Before you make any big changes that relate to your aim, it is important to establish your baseline position. For many of the High Impact Actions you will already be collecting data and will have a good indication of your baseline. If not, you should start collecting straight away. It is important to think about how often you collect the data; are you thinking about the data on an hourly, daily, weekly or monthly basis. We tend to think about data in big chunks, but often (depending on what the data is) it is useful to collect and display the data daily.



"I can't emphasise enough how much of a kick our nurses get out of this. It really goes back to what nurses come into nursing for: looking after patients." Nigel Broad Charge nurse, Abertawe Bro Morgannwg University Health Board

5. Analyse and present

The type of presentation you use has a crucial effect on how you react to data. Using a run chart (line graph) to plot data over time is a very powerful way to determine how the systems and processes of care are performing. Constructing a run chart is simple and is often most effective when drawn by hand. Having a piece of paper displayed on the wall that everyone can see means that people get immediate feedback on the data they are collecting, so they know it isn't just going into another 'black hole'.

Run charts are incredibly useful because they show how much variation there is in your processes over time. This means that you can easily see if changes in the data are just random difference - natural variation, or is a change that might need to be investigated (or is the result of making some changes to improve things). As mentioned above – plotting the data often, maybe on a daily basis means that you can get a real feeling for the variation within the system.

If you want to get more technical, there is an extension to simple run charts called Statistical Process Control (SPC) – there are more details at http://www.institute.nhs.uk/innovation /innovation/measurement tools.html



6. Review measures

It is a waste of time collecting and analysing your data if you don't take action on the results. It is vital that you set time aside to look at what your measures are telling you. It is really important that you present your data to the right people. Even if there is a chart on the wall, you need to make sure that the chart is looked at whether that is at staff handover, a team meeting or any other time - make sure you know when the data is going to be reviewed. There is a useful review meeting template on page 21 of the Patient Safety First how to guide for measurement for improvement

http://www.patientsafetyfirst.nhs.uk



You will need to decide how you are going to review and communicate your High Impact Action measures. Who needs to know about what the data is telling you will vary. For example, the board may only need to know about key outcome measures such as falls rates, but frontline staff will need to know about all the relevant process measures as well.

7. Repeat steps 4-6

Once you have completed the other steps this one is relatively simple but is often left out, which is a big mistake. You need to be continually thinking about what data you are collecting, making sure that it is useful and that you trust what it is telling you. Repeat steps 4, 5, and 6 continuously: Carry on collecting data, presenting it in a useful way and reviewing it. You will then be able to see how things start to get better as you make improvements to your service. You may want to consider stopping collecting some data, or changing the way it is being collected (e.g. sampling) if you are very confident that improvements made have been sustained. However, remember that you always need to have some measures that will tell you if things start going off track.

We have created a checklist that will help you work through the seven steps for each measure you are using. It prompts you with some vital questions so that you don't miss anything out. You can download it from the High Impact Action measurement section at www.institute.nhs.uk/hia



"The most satisfying element is that we have raised the profile of infection control, and have focused on areas other than national targets.

It was an area we identified and we improved patient care as a result."

Lindsey Webb

Director of nursing and governance, Birmingham Royal Orthopaedic Hospital

Assessing return on investment

When carrying out improvement work, you should also consider if the outcomes that you get are worth the cost it has taken to make the improvement. This can be achieved by creating a simple return on investment calculation. Showing you how the improvements that you have made have led to better quality care and are a better use of NHS resources is becoming increasingly important. Showing this information can also help win support for spreading an improvement more widely, and can help you to benchmark a range of different improvements against each other. Although writing robust and rigorous return on investment cases is a financial skill (and if you want help then the best place to start is your finance department) there are basic methods anyone can use to assess the benefits against the investment of time, effort and resources. Typically a return on investment (ROI) calculation is a type of cost benefit analysis that gives the net gains as a percentage of the costs. You can calculate a return on investment before or after an improvement but in this section we will assume you are calculating a simple return on investment before the improvement is made.

Costs

Usually, the main costs involved in making a service improvement will be staff time, training and materials. The project lead will be able to estimate the proportion of their time needed for the project as well as the input from other key staff. For example, the nursing staff of a ward who are provided with one hour's training in an assessment procedure to minimise the risk of falls among older patients, or a steering group that meets for an hour on a quarterly basis. Record all those staff that will make a direct contribution to the project and get estimates of the time they will spend on the project. To calculate the costs, take the average salary for the staff pay band, divide it by the approximate number of working days in a year (this is usually around 220 days and takes into account weekends and annual leave) to generate a daily rate for each member of staff, and then again by dividing by 7.5 (i.e. hours in a working day) to get an hourly rate. You may also want to add something to cover the additional overhead costs of employing staff (pension and national insurance etc), a conservative estimate that is often used for this is 18%.

Add any other costs of training and estimate the cost of any materials that will be developed or purchased. For example, patient health information leaflets, posters, assessment documentation, equipment etc. Purchasing and finance managers within your organisation will be able to help you assess most material costs.

Benefits

The benefits that result from your service improvement project need to include, as a minimum, an assessment of any changes in quality, patient experience and cost. The main outcomes you are aiming to achieve should be tracked as part of the project's measurement system (see the measurement information above). For example, service improvement initiatives aimed at reducing the number of falls or promoting early discharge will need to measure the status before the start, during and on completion of the work to understand what difference the improvement initiative has made. The number of falls is a relatively straightforward indicator, captured ideally along with the different grades of harm resulting from a fall (see falls section for more detail). As mentioned previously, much of the required information will be available from NHS trust information departments. Comparing outcome indicators before the service improvement initiative and after its implementation will give you an indication of the impact that has been made, or you can predict what impact you will have and see what the benefit will be. Remember there is always natural variation within any system so you need to make sure you have enough data to be really sure you have made a difference.

Once you are clear what the benefits are, it is then possible to start to calculate the costs. For example, the National Patient Safety Agency has calculated the direct costs of treating different types of fall according to their level of harm (see falls section). The Department of Health has conservatively estimated the daily cost of care for an individual awaiting hospital discharge to be £100. Therefore, if you are predicting that you can save 1.5 bed days per patient by reducing discharge delays, and treat 200 patients per year, your potential cost saving is $200 \times 1.5 \times 100 = \text{\pounds}30,000$. Not all outputs will be possible to quantify and assign costs to, such as enhanced quality of life for a patient or reductions in carer stress. Nevertheless, these are important quality and experience categories and must be carefully documented and reported as 'categorical' benefits that result from the service improvement.

Return on investment

By comparing the costs associated with the improvement with the benefits achieved (savings), it is possible get an estimate of your return on investment. For example, let's say an initiative to reduce falls has cost £20,000 in staff time and materials but has saved £30,000 by reducing falls that would otherwise have happened. The return on investment* is: £30,000 \div £20,000 = £1.50. So for every £1 you spend you save £1.50.

Sometimes though, it will appear that savings achieved are less than the actual cost of making the change. In this case check your assumptions and calculations and always make sure you have identified and documented the quality gain.

Share the results

Once you have completed your return on investment analysis it's important to share your results as the calculations can be very persuasive. It is important to always make clear the assumptions that underpin any cost calculation. For example, which costs have been included and which haven't, which costs and benefits it's been possible to cost and which it hasn't, and very importantly the time period for which the calculation is made. Sharing this type of information with colleagues allows them to understand the basis of your calculation and provides opportunity to further enhance its accuracy through their ideas and suggestions.

For more advice and a more advanced approach visit the NHS Institute's return on investment webpage: www.institute.nhs.uk/roi



The strict meaning of return on investment is (benefits – costs) divided by costs and given as a percentage but it is often not used in this strict way. The calculation given is actually a 'benefits to cost ratio and a dividend. The dividend is simply the benefits minus the costs, in our example, $\pm 10,000$, and the benefits to costs ratio is the benefits divided by the costs, in our example ± 1.50 will be saved per pound spent.

Case study: Stoke Community Health Services

DVD also on NHS Institute website



Measuring success

One of the first things to go up on the walls at the newly built Haywood Hospital has been the matron's dashboard, providing a visual reminder of performance for staff and patients alike.

Where we were

The dashboard was introduced by associate director of nursing and quality, Sarah Shingler, and is providing a range of benefits from improving quality of care to identifying funding opportunities.

The new 148-bed hospital run by Stoke Primary Care Trust houses six rehabilitation wards and is staffed by 200 nursing staff, many of whom have seen hospital closures and moves.

Driven by quality, the dashboard brings together nationally driven targets, locally agreed priorities and the trust's dedication to improving patient quality, which drives everything they do. Staff fed into the measurements through a series of ongoing engagement events which set local priorities. Using 'DashBoards' is another useful way of presenting data (Step 5 of the Measurement Process). DashBoards provide an overall view of how an organisation or ward is performing in key performance indicators which colleagues and managers can see: This helps identify when things are going wrong so staff can quickly address why and make improvements to their service.

"Staff can see how they are improving. This is a really visible tool. When we put the dashboard up, people could see how they were doing. For us it's about saying: we know you do it, but this proves you are doing it. It's no longer enough to just say: "I do a good job'."

Angela Cole Hospital matron

How they did it

Mandy Donald, managing director at Stoke Community Health Services believes the dashboard is improving – and proving – quality. *"The dashboard enables us to put all these targets together into a visual design. It is really important that our staff see how they continue to improve in these key areas and share it with the public and patients who come into the ward.*

"We need to quantify everything that we do financially, in doing so we understand the cost impact of getting things right first time, so we are becoming more efficient in what we do. For me the finance is an added bonus for us.

"The most pleasing thing is that on virtually every single ward, whatever the benchmark, there was an improvement. It provides me with the assurance, as the person heading up the organisation, that quality is paramount; not to just say that quality is important but show that it is being analysed."

Each month, the dashboard is updated and is publicly displayed on wards using a RAG rating (red, amber, green) to identify improvement. The dashboard also features on a range of committee agendas, including the trust board. It forms a major part of progress reports presented to commissioners to highlight the work and progress of the organisation to them during contract meetings. The data for the dashboard comes from the ward managers and is collated and mapped onto the dashboard. "We knew most of the information was already there," says Sarah. "We have also devised new documentation to support the dashboard." The dashboard has been designed to be responsive to each ward and features individual indicators pertinent to the ward or speciality, for example, drug monitoring within rheumatology.

Many staff welcomed the dashboard because the indicators spoke to core nursing values and features many of the High Impact Actions, such as falls reduction, infection control and tissue viability. In many cases the dashboards provide evidence of what staff are already doing and act as a visual tool to recognise these achievements. Where concerns are raised about performance, the matrons work with ward managers to develop action plans.

For those staff who were harder to convince, the trust identified development opportunities through a range of leadership programmes, designed to develop staff at all levels. "Once we started to share information, people's competitive streak kicked in," says hospital matron, Angela Cole. "Ward managers are absolutely key; they can do a lot of damage if they are obstructive to the process. But they are the unsung heroes."

Ward manager, Nicky Dale said: "It's important that we all work to improve patient care and the dashboard is a really useful visual aid to show staff how well they are doing. As long as it's there for patient care, it can only be a good thing. I bring it up at every opportunity. If we do slip down that's another reason to measure, so we can see it and address it." The next step is to add pound signs on to the dashboard to identify the savings being made to the trust – and across the local health economy. The team will map costs on to the work that is evidenced by the dashboard to provide a compelling argument for restructured funding.

The PCT has identified its impact across the health economy through a range of additional services. This includes cutting readmissions rate through reduction in falls and pressure ulcers. The role of care navigator has also been introduced into the acute hospital to reduce delayed discharge and the community services team has set up an IV antibiotics pathway.

Stephen Shallcross, was one of the first patients to stay on the wards following a stroke. He says: "The staff are absolutely brilliant. It's unbelievable; the nurses can't do enough for you. Everything is organised, you know what is going to happen when and it is a calm environment."

The PCT remains very clear that the work is driven by quality, but recognise it is inextricably linked to finance. To build on the improvement work they will need to free up funding within the health economy. It is not about spending less, but spending it differently. *"This is all driven by quality,"* says Sarah. *"But to do that we need to understand what these things cost."*



"Communication with staff is vital – making sure they are involved and understand the issues and that they are supported so they can act themselves. This goes from the healthcare assistants right through the grades – even the ward clerks have a role to play."

Nícola Cerrulo

Ward manager, East Kent Hospítals University NHS Foundation Trust

Some key sources of information you can draw on:

The Nursing Roadmap for Quality:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_113450

This has been designed to help nurses and their teams understand the elements of the quality framework that relate to nursing practice.

The purpose of the document is to:

- inform nurses and their teams of their role in supporting quality improvements against the seven elements of the quality framework and provide a 'one-stop shop' for key resources which nursing teams can use to further demonstrate their added contribution to quality.
- reinforce the need for nurses to identify ways to reduce waste and repetition by contributing to the quality and productivity challenge.

Indicators for Quality Improvement: http://tinyurl.com/lesm89

The indicators are:

- a resource of robust indicators to help local clinical teams select indicators for local quality improvement
- a source of indicators for benchmarking
- assured by clinicians for use by clinicians
- published with full metadata for transparency.

The indicators are not a new set of targets or mandated indicators for performance management. However it is possible that some of these may be specified as core indicators to be used in Quality Accounts. The initial indicators are mostly existing indicators which are supported by clinicians and NHS professionals as effective quality indicators.

Nurse sensitive indicators:

http://www.ic.nhs.uk/services/measuring-for-qualityimprovement/what-is-happening-on-indicators-for

This first set of nurse sensitive indictors outlines the approach that has been taken to the development of the core definitions across nursing regardless of care setting. It also sets out it is proposed to measure these indicators in a consistent way, including consideration of the need to standardise and reduce the potential variation in measurement. They are intended to support improving quality in NHS provided care – in both the NHS and social care settings – and apply to anyone wanting to measure and demonstrate continued improvement regarding nursing care.

NHS Evidence- quality and productivity website:

www.evidence.nhs.uk/qualityandproductivity

This specific quality and productivity section acts as the national evidence base on how to improve quality while making cash-releasing saving. It is designed to be a national resource which is dawn on locally. The website contains a selection of the best evidence available with real examples, submitted by healthcare professionals, of how staff are improving quality and productivity across the NHS.

Patient safety campaign:

http://www.patientsafetyfirst.nhs.uk

Patient Safety First seeks to reduce harm to patients by changing practise in specific areas, based on existing evidence. To put it simply, Patient Safety First is about actively looking for examples of harm, examining the causes and learning from them to avoid future incidences. This campaign is different: it is delivered 'by the service, for the service' and is led by a core team of dedicated clinicians and managers from across England all experienced in, and passionate about, improving patient safety in their own field.

Patient Safety First's **cause** is 'to make the safety of patients everyone's highest priority'.

Patient Safety First's **aim** is 'No avoidable death, no avoidable harm'.

The website contains a selection of "how to material":

The how to guide for measurement for improvement: http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx?p ath=/How-to-guides-2008-09-19/External%20-%20 How%20to%20guide%20-%20measurement%20 for%20improvement%20v1.2.pdf

Patient safety first measures definition paper: http://www.patientsafetyfirst.nhs.uk/Content.aspx?pat h=/Campaign-support/resources/

The quick guide to implementing improvement: http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx?p ath=/How-to-guides-2008-09-19/Quick%20Guide% 201.1_17sept08.pdf How to guide for leadership for safety:

http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx? path=/How-to-guides-2008-09-19/Leadership%201.1 _17Sept08.pdf

Measurement Tools: NHS Institute for Innovation and Improvement

http://www.institute.nhs.uk/innovation/innovation/ measurement_tools.html

The measurement tools page is a one-stop shop for the resources available from the NHS Institute on the subject of measurement. The tools section lists all the interactive tools available to help you measure your progress. The resources section contains documents, toolkits and guides relating to measurement.



"If we can make sure people are safe from avoidable harm, it's got to be worth doing. It reassures the patients' relatives, as they can see some form of documentation – which is quite prominent – that shows that their relative is being looked after."

Sandra Gillingham Ward matron, Ipswich Hospital NHS Trust