



Swansea University
Prifysgol Abertawe

Centre for Global Burn Injury Policy and Research
Canolfan Polisi ac Ymchwil Anafiadau Llosgi Byd-eang



**A PRACTICAL
GUIDE TO
QUALITY
IMPROVEMENT
FOR BURN CARE
in Low-Resourced Settings**

CONTENTS

Introduction and background	3
Introduction to the participants and their QI projects	5
8 Steps to carrying out quality improvement	7
STEP 1: Identify the problem	8
STEP 2: Build a team	10
STEP 3: Understand the problem	13
STEP 4: Create a SMART aim	22
STEP 5: Strategies for change	25
STEP 6: Measuring throughout	33
STEP 7: Analyse and respond	36
STEP 8: Building on success	39
Overcoming challenges	43
Summary	47
Links to further information	49
Acknowledgements	49

INTRODUCTION AND BACKGROUND

Why is quality improvement important?

Quality improvement (QI) in healthcare is crucial in order to improve treatment outcomes and patient experience. Quality improvement projects work to make care safer, more effective and economical, to ensure equity and access to care, and simply to ensure that patients get the best care possible. In low-resource settings, the focus is often solely on service delivery, i.e., managing high patient demand with limited human resources, equipment and general logistical infrastructure. However, providing care without questioning if it can be improved eventually results in poor care. Whilst there can be many barriers to focusing on quality improvement in these settings, it is important to try and overcome these obstacles and work on improving systems and patient care through evidence-informed, focused interventions.

This document is a learning resource providing a structured overview of quality improvement implementation, aimed specifically at healthcare professionals working in low-resource settings who are committed to improving their workplace.

A practical guide to quality improvement

This guide provides a step-by-step process to creating a quality improvement project in a low-resource healthcare setting, from identification of the problem to collecting data and creating a project, right through to maintaining and sustaining change. This resource is based on the framework created by the Centre for Global Burn Injury Policy and Research and Interburns, which was used to run a quality improvement course in Malawi.

Hiba, a nurse on a burns unit in Palestine, explains why nurses and other front line staff are so important for QI projects



This course in 2019/2020, funded by the UK's National Institute for Health Research, was designed for burn care nurses from Malawi and Ethiopia who wished to create positive change in the burn units where they worked. Although all examples here are from nurses working in burn care, QI projects can also be carried out by therapists, dieticians, clinicians and other healthcare workers.



For a small QI project, change is possible just with the locally available resources.

Burn nurse, participant of the quality improvement course in Malawi, organized by the Centre for Global Burn Injury Policy and Research



Malawi quality improvement course: **overview**

The quality improvement course in Malawi aimed to train burn nurses to critically evaluate their burn unit and identify a problem which they felt they had the power to change for the better.

Participants were introduced to specific skills to help them design and deliver a QI project, including project planning, data analysis, and leadership. These nurses undertook quality improvement projects as part of this course, following the eight-step plan created by the Centre for Global Burn Injury Policy and Research. Details of the participants' projects are used, with their permission, to provide real-world examples of how such projects can work in practice.

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How to use this guide?

Make sure to read about the participants and their QI projects in the next section before working through the eight steps. You will find that real life documents and data from these projects are used to give you an idea what these steps can look like. These real life examples are all from Malawi and Ethiopia, showing the barriers and facilitators faced by the participants when implementing their projects in low-resourced settings.

This practical guide provides a basic outline of the eight steps of a quality improvement project, and we encourage you to work through these with your own QI project in mind.

There are also links to some videos and further material for self-study if you would like to know more about quality improvement processes after working through this guide.

INTRODUCTION TO THE PARTICIPANTS AND THEIR QI PROJECTS



Daniel

Daniel, a nurse from Malawi, created a QI project which aimed to improve documentation of dressing changes. He felt the current system did not help with continuity of patient care, timely care or communication between health workers. Once he had assessed the baseline issues, the main problems were a gap in knowledge surrounding documentation of dressing change and time pressure. He created a short wound dressing documentation form to prompt assessment and maintain an accurate record of progress. After creating this form, in collaboration with colleagues, he provided an orientation for staff and a visual display of how to complete the form. The aim of the new form was to shorten the time to complete it and provide a uniform, step by step approach in dressing change documentation. Daniel's aim was to improve documentation completion from the baseline of 44% to 90%. After three months a positive change was reported, when 85% of dressing changes had accurate documentation.

from patients and their families about the lack of privacy during dressing changes, Ephrem and Kibrom decided to implement a QI project which championed the use of a screen during dressing changes. This project aimed to increase privacy for patients, especially between men and women on the same wards, by providing a screen to create male and female areas. They communicated the plan to use screens when undertaking wound dressings at the weekly all-staff meetings. The changes were picked up by his colleagues and the project has increased patient privacy and health worker professionalism.



Olive and Ziphilly

Ziphilly and Olive are two nurses from Malawi who created a QI project with the aim of improving vital sign recording and fluid monitoring for patients in the burn high dependency unit (HDU) from 50%-90% over a three-month period. They found that a lack of recording material, high workload, knowledge deficit and unavailability of visible guidelines all contributed to poor recording. To help with this problem they worked hard to provide monitoring equipment such as pulse oximetry and thermometers specifically for burn HDU nurses to use. Orientation and reorientation of nurses on monitoring and documentation of HDU observation charts was organised for both new and existing nurses.



Ephrem and Kibrom

Ephrem and Kibrom are nurses working in different hospitals in Ethiopia. After hearing of a number of complaints

Feedback sessions every two weeks and monthly prizes for the best documentor helped monitor the progress of the project and incentivise the nurses to get involved. At the end of the project there was an increase to 78% documentation and nurses were more confident and knowledgeable in fluid monitoring and vital sign documentation.



Patricia K and Patricia N

In Malawi, senior nurse Patricia K. focused her QI project on improving hand hygiene in health workers at her hospital. As she could not be there for the entire project, her colleague Patricia N. took over some of the running of the project. Upon assessment it became clear that there was a lack of infrastructure in terms of both sinks and hand rub contributing to a low level of hand hygiene. Also, there were no reminders about hand hygiene anywhere in the unit. The baseline data collection found that the availability of hand washing stations was at 37% and hand hygiene practice was completed 5% of the time. Patricia created a hand hygiene committee to monitor, influence and sustain the project. Additionally, hand rub and hand washing stations were sourced and then placed strategically around the unit. Staff communication took place through meetings and posters. Throughout the process, feedback was given about the progress on the change in practice, which helped to address behavioural barriers as well.



Richard

Richard is a nurse from Malawi who decided to focus his QI project on the use of pain medication during wound dressing changes. He found that within his unit many patients were experiencing a lot of pain during dressing changes as they either had no medication or were administered the medication during the change, which was too late to have the desired effect. A baseline study found that only 20% of patients were receiving adequate pain medication. The aim of Richard's project was to improve this to 90% over a five-month period. New guidelines were developed through consultation with doctors, nurses, the palliative care team, pharmacy staff, patient attendants and clinical officers. In addition, the nurses in charge of the unit were given ownership to ensure strong morphine is in stock on the wards at all times. At the end of the five-month period 66% of patients reported that they had received sufficient pain control, up from 20%.



Taweni

Taweni is a theatre nurse from Malawi. It had become apparent to Taweni that the instrument decontamination in her unit was not to the highest standard, which can be problematic and cause infection when there is reuse of instruments. Taweni aimed to improve scrub nurse decontamination of instruments from 50% to 100% over a five-month period. Taweni implemented several strategies for change including training for both new and old staff and visual posters demonstrating the process of decontamination.

8 STEPS TO CARRYING OUT QUALITY IMPROVEMENT



Identify the problem

Identify where things need improving and what can be done in a single project.



Build a team

Think about who you will need to work with to make your project a success.



Understand the problem

Learn about tools to investigate the cause of your problem and create a baseline assessment.



Create a SMART aim

Develop a structured and realistic aim for your project.

Strategies for change



How to change the causes of your problem? In this step you think through time, cost, communication and what you will do exactly to establish the change you want.



Measuring throughout

Only measuring again and again will tell you whether things are changing for the better.



Analyse and respond

Learn to work with PDSA cycles. You Plan-Do it-Study it-Act upon it to see if your changes are working and to make adjustments where needed.



Building on Success

Make sure to maintain and sustain the changes you worked so hard for!

STEP 1: IDENTIFY THE PROBLEM

It may seem obvious, but the first step of a QI project is to **IDENTIFY** the problem. To do this, you must also understand what **SHOULD** be happening in practice, so you can create an effective project that addresses the problem in a meaningful way.

How do you identify a problem?

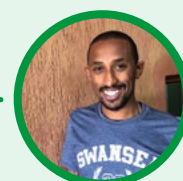
If you are a clinical member of staff you may already have a topic in mind that you want to work on, or maybe you want to do a QI project, but you don't have a clear idea yet. Either way it is important to observe the area of interest to see what is currently happening in practice. Other methods to identify a problem might include: clinical audits, incident reports, patient outcomes. See some examples of our participants when they were at the "Identifying the problem" stage, in the example overleaf.



The Problem	The identification of the Problem
<p>Insufficient handwashing</p>	<ul style="list-style-type: none"> • Through random observation by health workers in the unit it was found that handwashing was only done: after patient procedures, after exposure to bodily fluids and after removing gloves for the sake of removing glove powder. • Ideally, every patient room should have a handwashing sink/bucket. In this unit most of them were broken and some rooms did not have sinks at all. • There was also poor/no supply of hand rub • Puts patients more at risk of nosocomial infections by cross contamination therefore can increase length of stay in hospital and have a negative impact on treatment outcomes.
<p>Lack of privacy during burn dressing changes</p>	<p>Through patients' feedback in the logbook and personal experience it was highlighted that there were no screens used during burn dressing changes to separate men and women, due to lack of room and resources. This created a lack of privacy for patients.</p>



Example where Patricia compares how it is happening in practice to how it **SHOULD** be happening.



Ephrem and Patricia both specify the method they used to identify their problem.

Be mindful that the problem you intend to investigate is manageable and that you have the power to change it. These QI projects focus on small steps; while the final aim may be to reduce patient mortality, this will inevitably involve multiple steps that need to be addressed one at a time.

Top Tip
FOCUS ON WHAT MATTERS TO YOU AND YOUR TEAM

when you start to look for improvement ideas think about the 'things that always seem to cause problems or don't seem to make sense.'

STEP 2: BUILD A TEAM

Once you have an idea of the challenge you want to tackle, you must take time to think about who are the appropriate stakeholders to involve, and then start to **BUILD A TEAM** of committed and informed individuals to carry out the change. **ENGAGING** the right people from the start will give you the best chance of ensuring sustainable success.

Who should you include?

Consider what expertise and influence you might need in the team. It may be necessary to include a wide variety of individuals who will be able to support decisions and/ or carry out actions. Your team might include doctors, nurses, therapists, a representative from management, technicians, porters or cleaners in your hospital, and patients and their families – the important thing is to include the most relevant people who can bring about change.

It can be useful to do a **stakeholder analysis** at the start of your project, to ensure you have contacted and involved all the relevant people from the start.



Example of a stakeholder analysis from Olive and Ziphilly's project to improve vital sign and fluid balance monitoring and documentation.

List any stakeholders who you will need to involve and how you will contact them

Stakeholder	Role	Method of contact
Nurses	Do observations	Meetings, face-to-face, Whatsapp, notice boards
Pharmacist	To provide material resources	Face-to-face, phone and memo
Management	Approval of supply of equipment	Face-to-face, memo
Clerk	Collection of observation charts	Face-to-face
Non governmental organisation (NGO)	Financial support for observations charts	Proposal writing, e-mail, face-to-face



An **example** from Patricia’s handwashing project in which she describes her team.

Stakeholder analysis		
Stakeholder	Role	How can they be engaged/contacted
Nurses/health workers	Implementation or changes put in place	Call for a meeting, discuss with them about the project (orientation)
Patients	Assist with change processes and evaluation	Patient health talks or meetings weekly
Partners/Funders (e.g. NGO)	Assisting with resources	Write them and call for a meeting
Hospital management	Providing material, resources and maintenance	Discuss with them verbally

Patricia also used the table below to think about the type of stakeholders that should be involved in her project. Some stakeholders, such as the patients, will feel the impact from the change while their influence to bring about change is very small or non-existent. At the other extreme, hospital management carries a lot of power and influence about whether the change is implemented and in which way, but they will not be impacted themselves by these changes. Such a table can help you think about how to approach different stakeholders.

Project team: health workers in burns unit, visiting nurses & medical students.

Patient’s guardians were also included as caretakers and to remind health workers to wash hands.

High power	Hospital management	Health care workers
Low power	Partners	Patients
	Low impact	High impact

Define roles – Make sure you define roles clearly. Who will lead the project? Will there be a Champion for your project? Does someone from management need to be included? Think about how the different stakeholders can influence and are impacted by the project.



Example from Olive & Ziphilly's project.

QI team composed of unit manager and 4 nurses.

Every 2 weeks the QI team were measuring the effect of the change by assessing the patient observation chart against the data collection tool.

Identified Champions for the project.

Involving stakeholders to provide monitoring equipment.

Why this team? Definite, predefined roles. Appropriate, committed individuals.



**CHALLENGES
OLIVE & ZIPHILLY
ENCOUNTERED:**

- Staff compliance to change in absence of leaders.
- Rotation of nursing students and deployment of new nurses.

SOLUTIONS:

- Continue supportive supervision of HDU champions.
- Involving stakeholders throughout change process.
- Orientation policy to all new nurses and student nurses.



The **QI team** for Olive & Ziphilly's project checked the patient observation data sheets every two weeks.

Top Tip

Network with those who have a similar passion and interest to help keep motivated and provide advice on how to overcome barriers to change.

STEP 3: UNDERSTAND THE PROBLEM

Once you have your team, and you know the problem area you want to address, it is crucial to fully **UNDERSTAND** what might be causing the problem, and think it through **THOROUGHLY** to ensure your project will be as effective and fitting for the local issue as possible.

What tools can be used to help you INVESTIGATE your problem?

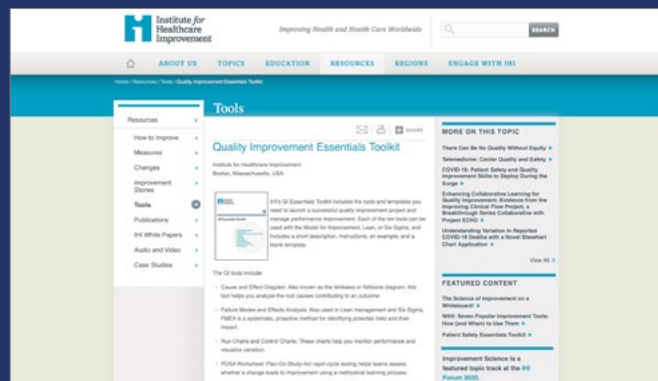
There are multiple tools that you can use to understand your problem better. You do not have to use every tool for your QI project, but whichever you choose, use it well to identify the root causes of the problem, and think through all aspects of the issue you are addressing. Don't forget to think about the contextual factors which are contributing to the problem in your particular area, as these may vary from hospital to hospital and ward to ward.

TOOLS TO UNDERSTAND YOUR QI PROJECT:

- ✓ Fishbone diagram
- ✓ Driver diagram
- ✓ 5 Why's
- ✓ Process mapping
- ✓ Workflow diagram
- ✓ SWOT analysis

You can find more information about these tools and templates on the Institute for Healthcare Improvement website: "Quality Improvement Essentials Toolkit"

<http://www.ihl.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx>

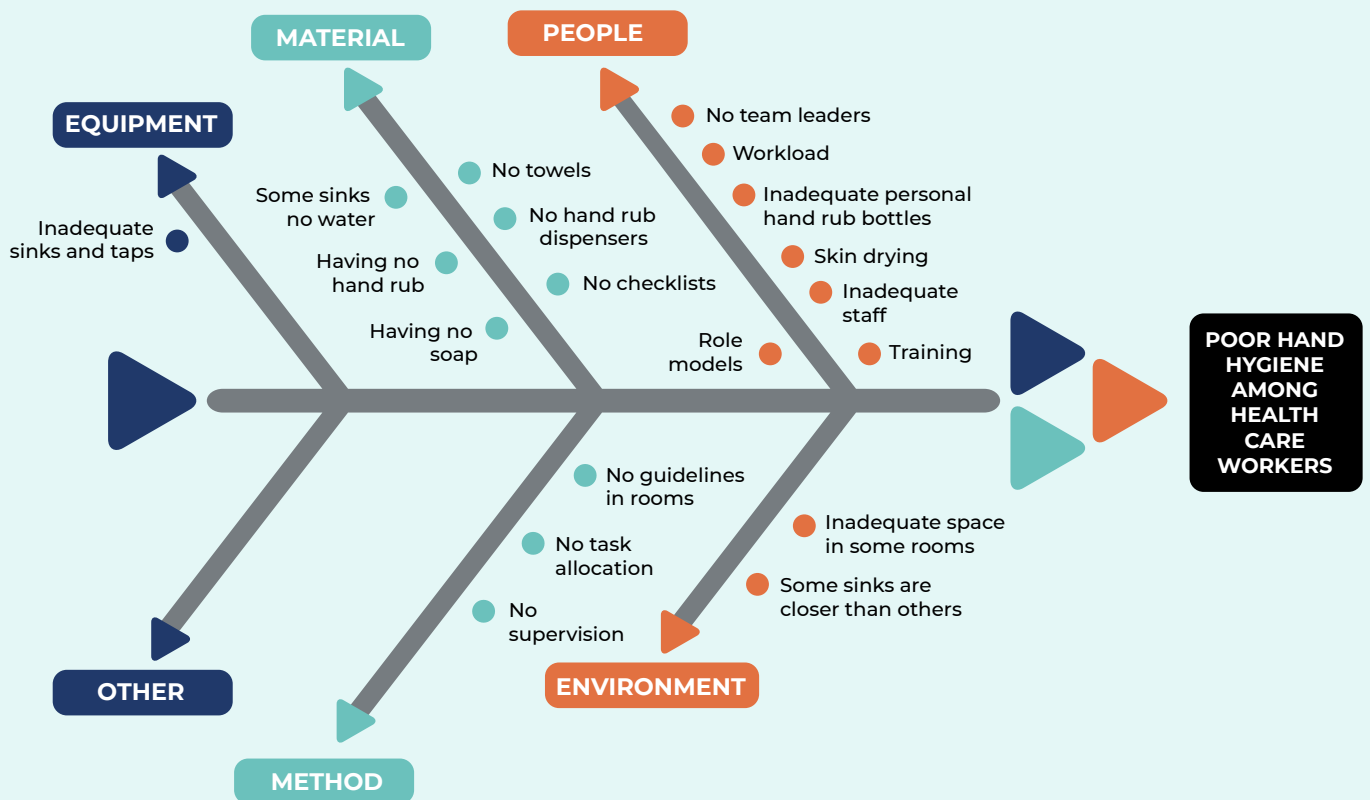


Fishbone diagram, also known as a cause and effect diagram, aims to help us identify the possible causes of an event, outcome or issue. To help us consider the issue from different perspectives the diagram breaks down the potential causes into the following categories: equipment, process, people, materials, environment and management.



Example: Patricia used a fishbone diagram for her project on hand hygiene:

FISHBONE DIAGRAM



Driver diagram – These diagrams help us plan what improvement activities we might work on. The diagram starts with the overall aim of the project and works backwards into **primary drivers** (these are the big areas that we will need to work on to achieve the aim), **secondary drivers** (sometimes there are other things that we would need to put in place to make sure

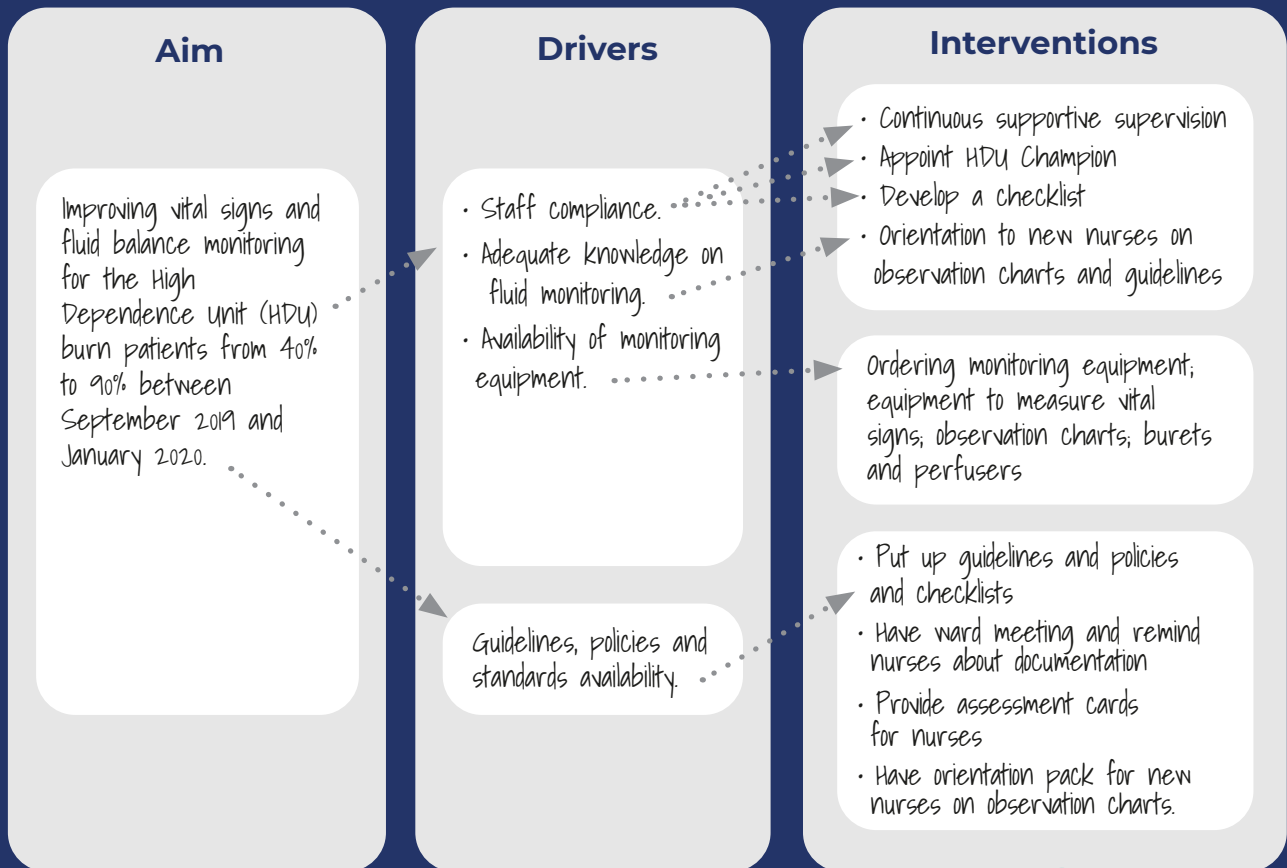
the primary drivers work well) and **change ideas** (these are the ideas that we would test to see if they help move towards the overall aim by influencing the primary and secondary drivers). When you put all these ideas together, the driver diagram helps the users come up with a catalogue of changes that start to help form a project plan.



Example of a driver diagram from Ziphilly and Olive for their project on fluid and vital sign monitoring.

Smart aim

This is a driver because in order to achieve the aim the staff must know how the HDU forms should be completed.



In the interventions they list the concrete actions that will help to achieve the Drivers that are identified. For example, there are several ways to remind nurses of the guidelines and policies during their work.

5 why's - this is an iterative interrogative technique. Each question forms the basis of the next question, always trying to get to the root of the problem.



Example from Richard's project on improving pain relief.

01

Q: Why do few burn patients get adequate pain control before dressing changes?

A: Because it is not always prescribed.

02

Q: Why is the pain medication not always prescribed?

A: Because the doctors are not informed about the need for the prescription.

03

Q: Why are doctors not informed?

A: Because there are no clear guidelines and policies on dressing changes for burn wounds.

04

Q: Why does the hospital not have guidelines and policies on burn management?

A: There has been no formal training for the members of staff in burns who were expected to formulate guidelines and they therefore lack enthusiasm and knowledge.

05

Q: Why has there been no formal training amongst key individuals on burn management?

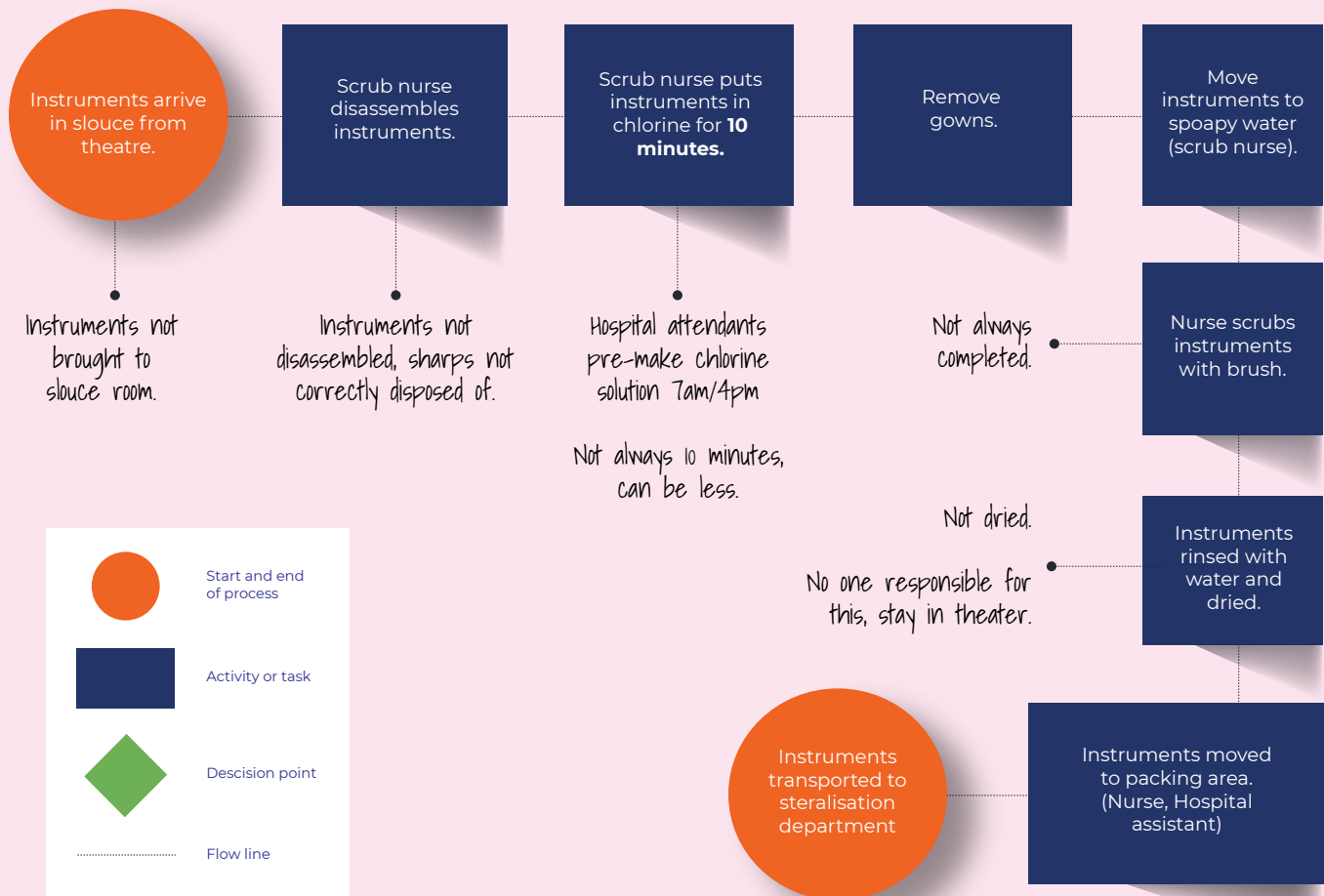
A: Lack of (financial) support or opportunity.

Process mapping – This is a tool whereby we create a visual representation of each step or stage of “how things get done”. This detailed map then allows the users to identify areas where there are strengths and weaknesses in the current process so that improvements and resources can be targeted appropriately.



Example: Taweni made a process map of the decontamination of surgical instruments in the hospital theatres. Next to the tasks she noted her own observations about the process.

DOCUMENTATION OF SURGICAL INSTRUMENTS IN THEATRES



Workflow diagram, also known as a spaghetti diagram, is another visual tool to help establish an the best lay out of an area, ward or department based on observations of the distance travelled by patients, staff or products. Using this observational method, we can identify areas where time could be saved by preventing unnecessary travel. For example, allocating patient assessment equipment together in the same room or on the trolley where the most frequent assessments take place to prevent having to find or travel to collect multiple pieces of equipment from different parts of the ward or unit.

Strengths, Weaknesses, Opportunities and Treats (SWOT) analysis can be a helpful tool to check the factors which can affect the success or failure of an intervention.



Example: Olive & Ziphilly's project on monitoring of vital signs and fluid balances shows an example of a **SWOT analysis:**

Strengths – List the factors which are likely to help you to achieve your project objectives.

Weaknesses – List the factors that might be barriers to achieving your project objectives.

SWOT ANALYSIS – BURNS UNIT – VITAL SIGNS & FLUID BALANCES	
Strengths	Weaknesses
Availability of guidelines Approval of management Availability of nursing staff	Nurses knowledge deficit Lack of visible guidelines Lack of monitoring equipment
Opportunities	Threats
Support by management Availability of nurses	Rotation of nurses to other wards Breakdown of monitoring machines and equipment

Opportunities – these are things that create chances for things to happen, often these are outside your ward – for example, is there a hospital conference coming up where you could share your ideas?

Threats – list external factors that are likely to have a negative effect on completing your project. What are the things that could stop the project from being successful?

These techniques are very important for your QI journey. Using these tools in collaboration with your team and stakeholders will make sure you have thought about the problem in enough detail and will help you anticipate barriers as well as strategies to overcome them.

These tools will also help you understand what is and is not feasible as a QI project.

Top Tip

It is important to study the system rather than place blame on individuals for certain failings.

For example, using the **5 why's tool helps identify why staff might behave in a certain way** based on the system they are working in.

ASSESSMENT of the problem

Once you have started to uncover the potential causes of a problem as a team, using the above techniques, you can take these ideas and create methods to **MEASURE** them, to assess the size of the problem and identify how much each identified factor is affecting the problem.

You must start with a baseline assessment of the problem; without knowing where you started you won't know if you have made an improvement. This baseline measurement can also help you identify where to start your project.



The following is an **example** of how Olive & Ziphilly assessed the problem of recording vital signs and fluid balance, prior to implementation of the final project.

Assessment of the problem

- ✓ Checklist tool was created which contained 15 indicators of what needed to be done.
- ✓ Project leaders randomly checked through HDU observation chart documentation and identified vital signs and fluid balance monitoring and documentation on HDU observation charts were **not** done 2 hourly as per local guidelines.
- ✓ The problem was communicated to all burns staff during a meeting and the QI team was selected.
- ✓ The QI team retrieved 20 patient files with HDU observation charts for October and November 2019. The HDU observation charts were assessed against the checklist. 50% had poor vital signs and fluid balance monitoring and documentation.
- ✓ The problem was presented to the nurses during a meeting.



Example: Patricia’s project on hand hygiene assessed the problem using two checklists:

The first checklist was used:

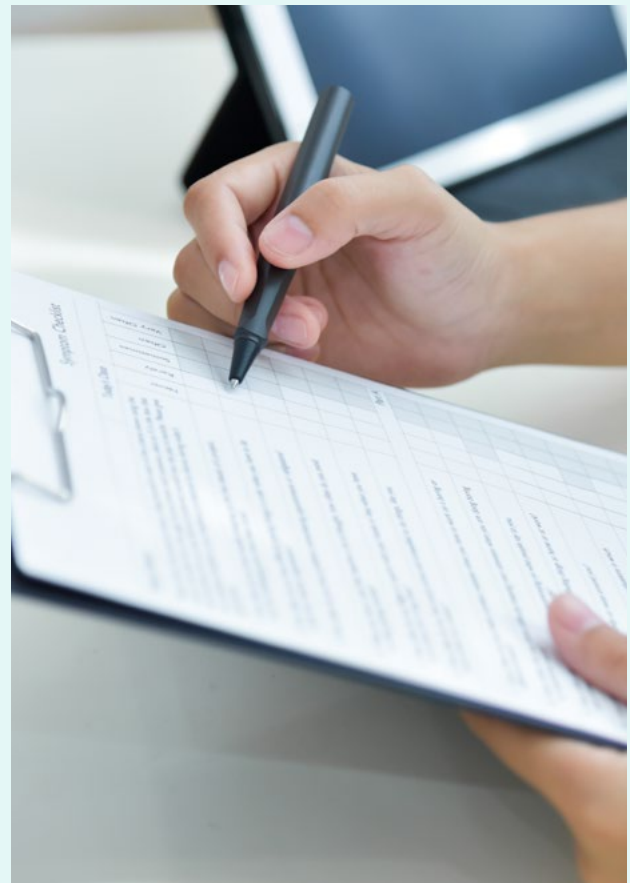
- To observe hand hygiene compliance by health workers
- To ensure compliance to handwashing at all the 5 moments of hand hygiene

Staff Member Observed	1		2		3		4		5		6	
Cadre	Clinician		Nurse		Nurse		Nurse		Nurse		Support staff	
Moment	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Before touching a patient												
Before a procedure												
After procedure or body fluid exposure												
After touching a patient												
After touching patient surroundings												
Additional Item												
After removing gloves												
Unpainted nails												

The second checklist was used:

To assess the availability of hand hygiene resources: sinks, buckets, soap, alcohol rub, hand hygiene posters.

ITEM	✓	✗	COMMENTS
Sinks/buckets are available in all areas as needed			
Tap water is available in all sinks or buckets			
Hand washing steps poster is available			
Hand washing soap is available in all stations			
Alcohol hand rubs are available			
Alcohol hand rubs are well stocked			
Placement of alcohol hand rub is compliant with safety			
Hand hygiene reminder poster is present			
Hand hygiene is performed between patients			



This data was collected by a team leader (nurse) each day.

This data was collected on 5 consecutive days.

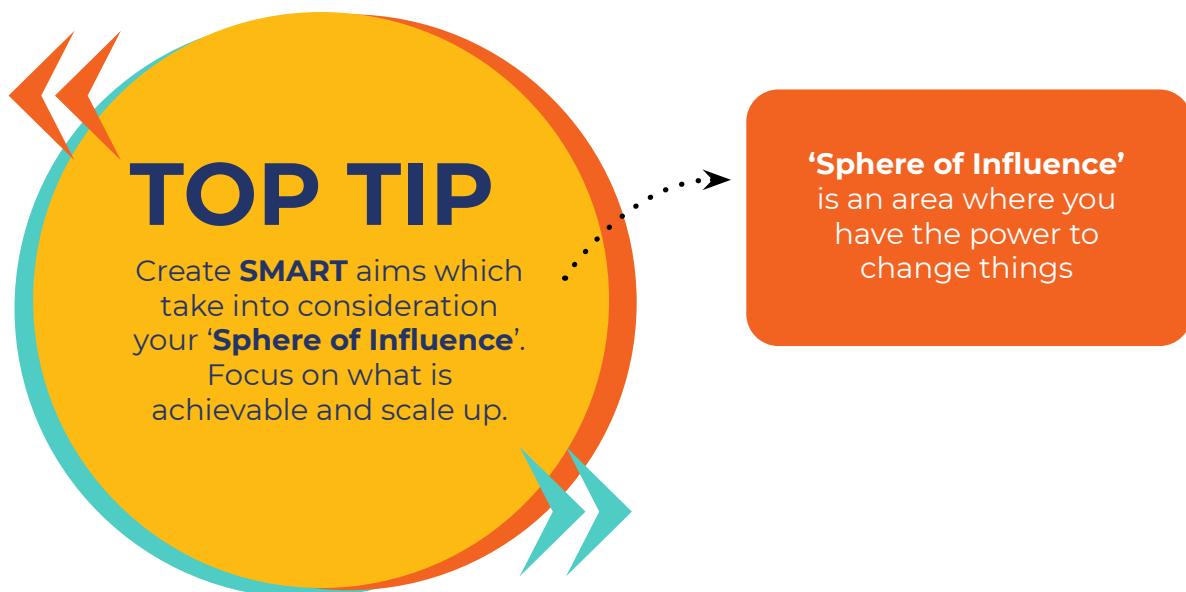
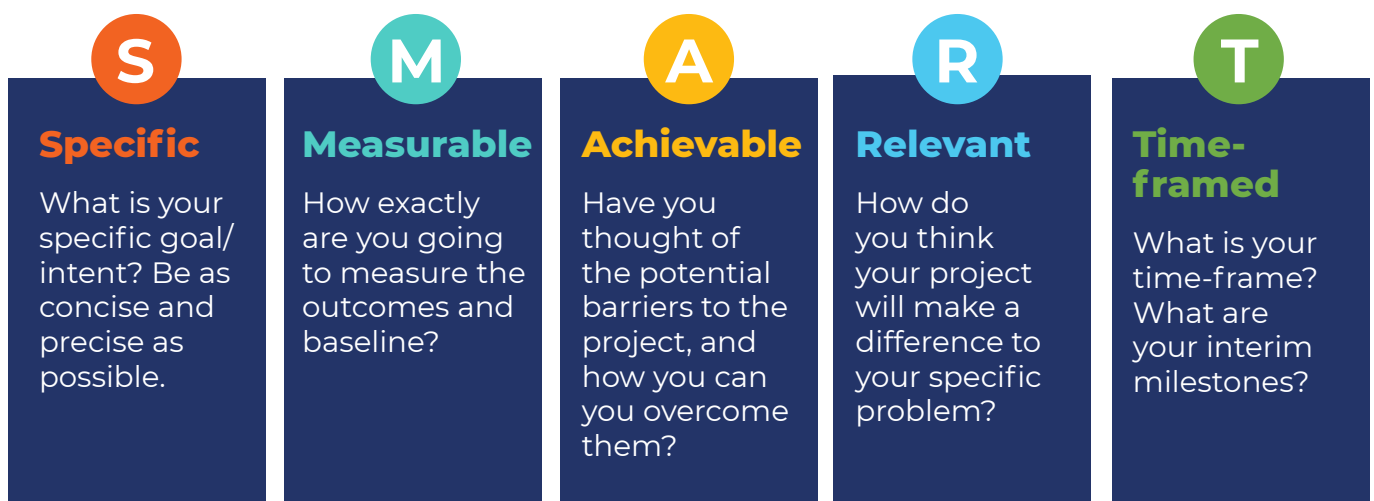
Baseline measurements: The overall hand hygiene practice was at 5% and the availability of the hand hygiene resources was at 30%.

Clear quantitative baseline data (figures or percentages rather than descriptive indicators such as 'poor' or 'good'), gives you the opportunity to compare outcomes of similar measurements at later moments to see if you have made a difference.

STEP 4: CREATING A SMART AIM

Now that you have started to assess the problem, you can start to develop an aim for the project. Using the 'SMART' framework will ensure that your goals are structured, realistic and achievable.

A '**SMART**' aim means you make sure it is:





Example: Richard formulated the following aim for his project on pain control during dressing changes:

This first sentence gives a concise goal of the project, but it could have been more specific in describing what to change, e.g. prescription of medication, guidelines, training (see Richard's 5 Why's in Step 3).

Precise measurements at baseline and to aim for.

Clear time frame.

AIM

- Pain control should improve in burn patients from 20% to 80% between October, 2019 and February, 2020.
- It is a project that is aimed at ensuring that all patients with burn wounds are assessed properly and given adequate pain control to promote cooperation, proper wound care and facilitate wound healing process.
- This is in line with the objective of the surgical department which is to provide specialised individualised quality care to all patients in the department.

This consideration means hospital policies and management will support the change.

Richard is a senior nurse and involved in policy meetings. Make sure while designing your project that you consider what is achievable within your position at work.

Identifies the results of the project on the pain control measurements but also the wider impact on patients and care.



Olive & Ziphilly's aim provides a great **example** of how to be as specific as possible. Making the objectives very concrete will help in the next steps when you develop the strategy for your change.

They could have been even more specific in formulating their aim to include what type of documentation and monitoring they mean for their specific hospital.

AIM

- **Improving vital signs and fluid balance monitoring and documentation** for HDU burn patients from 50.8% to 90% from January 2020 to March 2020

SPECIFIC OBJECTIVES:

- **To provide** adequate knowledge on fluid monitoring and balance to nurses working in burns HDU
- **To ensure** availability of monitoring equipments in HDU
- **To reinforce** nurses staff compliance on fluid monitoring and balance

Once you have created your **SMART** aim you might want to revisit who is in your team and identify any additional stakeholders who might be affected by your intervention. If you find that there are additional stakeholders who need to be involved you should consider approaching them at this stage to encourage them to get involved as early as possible.

STEP 5: STRATEGIES FOR CHANGE

When you have an idea of something you would like to change, it is tempting to jump straight to this step. But why is it so important not to move straight to thinking about how you are going to make change?

The steps before this are SO important to make sure you are making changes based on all the relevant information.

You might think the problems stem from one thing, but after assessing the situation you might find the cause is something else entirely.

Every step before this ensures your project will be evidence-based, relevant and specific to the problem in your setting and it helps you to anticipate barriers and facilitators.

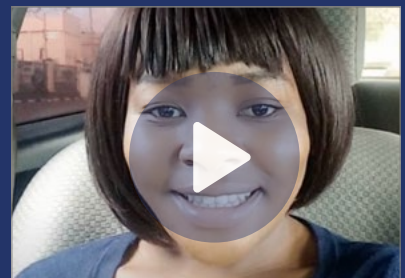
What is included in your strategy for change?

When you start to think about making a change you may find that you can re-design a current system or you may need to design a completely new system. Either way, your strategy should ensure that:

- ✓ It addresses your **SMART** aim.
- ✓ Everyone knows their role and responsibility within the project.
- ✓ There are feedback methods in place to see how the project is doing during its progress (e.g. audits; patient outcomes; observations; interviewing).
- ✓ There is space for adaptation/change within the project after you get feedback (see also the PDSA cycles discussed in [Step 7](#)).
- ✓ There is an evaluation plan.
- ✓ The change you introduce is sustainable after the project has ended.

Watch these videos

Patricia N and Ephrem reflect on the key aspects that you need in your strategy to have your project succeed.



Also, do not forget to think of the practical issues when designing your plan – try to be as specific as possible. You should make a plan for the timing of the project (**time plan**), any financial needs (**budget**) or other requirements (**resources**), so you know the requirements and implications of the project. Planning out your project in such a way will also help you understand the things that could go wrong – and gives you time to find a solution.

Planning is an important part of your strategy as it allows you to organise how you will approach the project and the points at which you will need to be meeting with colleagues, collecting and reviewing the project's progress.

However, you will also need to be flexible and adaptable as the project progresses. It is crucial to note that QI is an on-going process, as you progress through PDSA (Plan-Do-Study-Act) cycles (see Step 7). Unlike more traditional research projects, QI does not have a natural “beginning, middle and end” but is a continuous loop.

See Richard's **GANTT** chart in the overleaf **example**.

GANTT charts, named after the inventor Henry Gantt, are often used as a way to illustrate a timeframe for individual actions and activities as part of a project.

TOP TIP

When communicating your ideas consider your audiences

– communicating your ideas will work best when you can present a clear advantage compared to current ways of doing things i.e. reduced time, simplifying a procedure, patient improvements and compliance.



Example: Time planning example from Richard's pain control project

Richard planned to ensure that managers were engaged early and gave permission for the project to go-ahead.

Regular meetings with management to ensure they are aware of progress and early "buy in"

Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20
Collection of baseline data																				
Seek authority from hospital managers	▼																			
Meeting with head of department									▲											
Initial meeting (formation of QI team)																				
Formulation of pain control guidelines																				
Orientation of staff																				
Finalise and laminate guidelines - distribute																				
Select pain control champions																				
Encourage campaign for patient involvement in asking for pain relief																				
Follow up data collection																				
Analysis of follow up data																				
Review meetings																				
Report writing																				
Dissemination																				

Regular follow up / analysis to identify areas of progress / intended and unintended consequences over time to inform 'further action in your project (see PDSA cycles in Step 7)

Regular review meetings and dissemination to report on progress, allow for staff feedback and input. Reports for management can help them follow the project and levy additional support.

At the start of the project you should work with your team to put together a realistic and itemised budget linked to the specific project objectives and activities. The budget should include any resources that you might need to collect or record the progress of your project i.e. paper, pens and printing costs.

You should consider if purchasing additional items is really necessary and/or if there are alternative ways you can complete the project. If not, as a group you should note where extra money will come from. In cases where larger or more costly items are required you may need to consider working with your QI team to put a proposal together.



Example: Budget example from Patricia's hand hygiene project

The project considered resources available at the hospital already which helped reduce overall costs.

No.	Item / resource	Justification	Costs in local currency
1	Sink and running tap water in each room	For hand washing of patients and health workers	Provided by the hospital
2	Alcohol based hand rub	For hand cleaning by health workers and patients	Provided by the hospital
3	Hand hygiene checklists	To measure the changes/ collect data for evaluation	1000 Kwacha
4	Lever arch files (x2)	To keep data and the project documents	6000 Kwacha
5	Plain papers (1 ream)	For printing and photocopying the check lists, posters and project documents	6000 Kwacha
6	Hand soap	For hand washing to remove microorganisms	Provided by the hospital
7	Posters	To paste on each sink and hand rub area to act as reminders	5000 Kwacha
8	Permanent markers/ White board markers	To write when doing presentations	N/A already available
9	Flip charts	To use during progress meetings and presentations	5000 Kwacha
10	Printing Services	To print checklists, posters and documents	20,000 Kwacha
11	Buckets and basins to make additional hand washing stations	For hand washing of patients and health workers	Some could be ordered from hospital stores others had been previously donated to the unit.



The below **example** from Olive & Ziphilly's project tries to incorporate the above points to create a strategy for change. You can see how they spell out the concrete steps to achieve their aim (see example in Step 4).

STRATEGY FOR CHANGE:

- Involving stakeholders to provide monitoring equipment such as table and pen, pulse oximetry, buret, and wall clock were put in HDU.
- A motto was made and stuck on the wall.
- Progress of change was communicated through face-to-face, meetings, and notice boards to all the burns team and all stakeholders.
- Supportive supervision by project leaders and champion.
- Visible display of 'best monthly documenter'.
- Allocation of 2 nurses in HDU per shift.
- Data collection and feedback meeting was done every 2 weeks.
- Reorientation on vital signs and fluid balance monitoring and documentation were held for nursing staff and student nurses working in Burns Unit.
- Change tested by PDSA cycle (see Step 7 below).



Olive and Ziphilly's equipment



Example: Patricia came up with a detailed strategy for change for her hand hygiene QI project.

STRATEGY FOR CHANGE:

Appoint a team leader each day:

- To ensure the availability of hand hygiene resources.
- To assess and record hand hygiene practices for each health worker available on duty.

To inform hospital's QI coordinator:

- About hand hygiene problem.
- Lobby for supply of handwashing buckets and alcohol hand-rub.

Write posters demonstrating:

- Hand hygiene.
- Hand washing steps.
- Moments of hand hygiene.

Put up posters at every strategic point to act as reminders.

Motivate staff by:

- Clear communication and praise.
- Train health workers.

Educate patient guardians on hand hygiene.

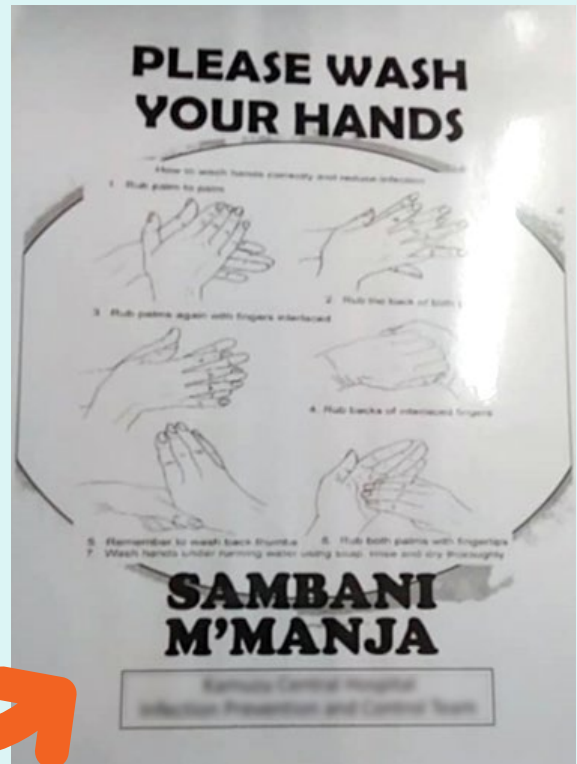
Ensure communication using our notice board and via our unit Whats-app group to increase awareness of the project.

Use of video to educate health workers on need for hand hygiene.

This is one of Patricia's posters that shows the correct technique for hand washing.

She thought about many practical aspects:

- ✓ It reminds everyone to **wash hands**.
- ✓ it is written in the **local language** so that everyone can understand.
- ✓ it has **pictures** for those who cannot read.
- ✓ it is **laminated** so that it does not become wet.



Nurse explaining the poster next to the hand washing station.



Nurse demonstrating best practice for Patricia's project.

Change is not easy

Implementing change is not easy and might not go to plan for a number of reasons. Here are some of the reasons why change doesn't happen:

- **More of the same** – if people are not used to change, they will suggest more of the same, more people, money, equipment, as the solution. But until you really understand the root of the problem you cannot know if this is the right solution – sometimes it doesn't need more resources, it needs a new way of working.
- **Adding more inspection or auditing** – this might be another first response that colleagues will suggest, but is not always the solution as it is likely that this does not tackle the root of the problem. This might unnecessarily increase workload or decrease motivation.
- **Adding more procedures** – it is easier to add to an existing system than to change it, but you need to be careful not to end up with an unnecessarily increased workload. Try to think of the whole system and of the long-term sustainability.
- **Focus on individuals rather than the system** – for change to be sustainable, often it is the system that needs to change. Individuals might need training to change with it, but do not focus your change on them.
- **Searching for the perfect change can stop people implementing any change** – however, there will always be unintended consequences and side effects, so while anticipating barriers, testing concrete changes is most important way to make progress. Start by making small incremental changes and scale up once you know these work.

How do you get your team on board?

Once you have designed your strategy for change, you will also need to consider how you will **communicate** your intended changes. It is crucial to any QI project that stakeholders are motivated to listen and be part of the changes you are suggesting.

Example: Richard gave presentations in his hospital to a wide range of stakeholders to communicate his project, as you can see in this photo. He also practiced an 'elevator pitch', which is a short message to sell your project (i.e., if you ever find yourself in the elevator with the Director of the hospital and you have two minutes to convince him or her to support your project, what would you say?) **Find Richard's elevator pitch here.**



You can see some other **examples** in Olive & Ziphilly's project strategy above. They created a motto for their project and they kept track of the best documenter of the month. Such ideas keep interest going and motivate people to stay involved.

STEP 6: MEASURING THROUGHOUT

As mentioned in Step 3: Understand the Problem, you should plan to measure your change in order to identify if improvements are being made and if not, where you might need to re-consider your approach. During a quality improvement project you should collect data at a number of points. **COLLECTING DATA** only at the beginning and end, as you might see in a typical research project, will not be enough as you may need to make **ADJUSTMENTS** to your plan if you are not seeing an improvement, or in some cases you may need to stop the change if it is having a negative impact on the problem.

When considering how you will measure your project results you need to think about:

- How you will know whether or not you have achieved the desired outcome;
- What information is currently available or could be easily collected

These measures might include audits, patient feedback and/or observations. You will need to consider which is most appropriate and the key strengths and limitations of each method.

For your project, you need to decide:

- Which measurement tools are the best to investigate the change?
- What are you going to measure?
- How often are you going to measure?

In each of these examples nurses had to review and change an element of what they were measuring to make sure that they were measuring the **right things**, at the **right time**.

Common pitfalls with measurements:

- **Measuring too few variables** – therefore not being able to demonstrate change has happened.
- **Measuring too many variables** – getting confused results when not all variables are relevant to the change.
- **Not measuring frequently enough** – means you have no chance to adapt your strategy throughout the project.



Example of not measuring specifically enough:

Olive & Ziphilly describe their measurement tool:

- Same checklist used to collect baseline data was used for measuring change progress;
- A QI team checked patients observation charts in the files against the checklist tool which contained 15 indicators. ← ...
- Data was collected using a data collection tool using a scoring system of 0, 1, 2 for every indicator and then put in a graph.
- Data was collected every two weeks.
- The tool was able to identify progress on every indicator and also helped to identify areas to focus change interventions.

Olive & Ziphilly started with 10 different indicators that they were measuring. They found that **the indicators that they included were not specific enough** to identify the precise areas which needed to be considered to improve documentation.

The picture below is the checklist used by Olive and Ziphilly to record their data.

	A	B	C	D	E
1	Patient Number	12345	67891	98766	65432
2	Does patient have HDU chart (1)				
3	Personal details complete (2)				
4	Does patient have diagnosis (3)				
5	Fluids ordered? (4)				
6	Investigations done? (5)				
7	Medication filled? (6)				
8	Has fluid input been recorded (7)				
9	Has fluid input been recorded every 2 hours? (7a)	◀.....			
10	Has fluid output been documented?(8)				
11	Have vital signs been recorded (9)				
12	Has fluid balance done? (10)				
13	Has 24hr input total been recorded (11)	◀.....			
14	Has 24hr output total been recorded (12)	◀.....			
15	Has daily balance been calculated correctly (13)				
16	Does the fluid balance match the prescription (14)	◀.....			

Questions highlighted in yellow are those which were added after baseline data collection to ensure that subsequent data was specific enough to help identify the root of the problem.

After collecting baseline data Olive and Ziphilly noted that the information they had was not specific enough to identify the root of the problem.

For example, if fluid input was recorded at any point on the patient chart this scored a “Yes” in the audit. However, it was noted by the project team that the fluid input was not always recorded consistently. To solve this, they added the question “Has fluid input been recorded every two hours?”. After further investigation Olive and Ziphilly were able to identify that there were certain hours of the day where the fluid recordings were consistently missed. **This then allowed the team to investigate what was happening during these hours and further assist in their ideas for change so as to specifically target the root of the issue.**

TOP TIP

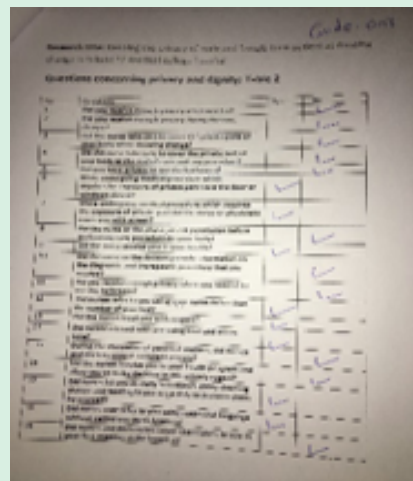
Consistent and regular measurement is key – without measurement it is difficult to identify if the change that has been made has had an impact on the problem.

Once you have collected your measurements it is important that time is made to reflect on the changes and start to pinpoint where additional improvements could be made or identify areas which, despite your efforts, have seen no change.



Example of measuring too much:

Ephrem’s project on privacy during dressing changes started out measuring many variables. For example, he included questions about nurses’ language use and privacy in bathrooms. Although all these were important, his change idea to introduce a screen in the room, was not designed to change any of those variables. So think carefully through what variables you measure and whether they represent what you are trying to change.



For example, ‘Did the nurses let you do daily activities if you could do them by yourself’, is not related to the introduction of the screen and the attention for the patients’ privacy.

You can therefore see that there is no improvement in some of these variables.

STEP 7: ANALYSE AND RESPOND



As well as collecting data it is important to pause as a team to analyse the data you have collected so you can note changes or trends as they start to appear. Unlike larger more traditional research projects, quality improvement models recommend that changes are introduced on a small scale and built on as the team begins to measure and review the changes that have put in place. This often means that a quality improvement project will have a number of **PDSA CYCLES**.

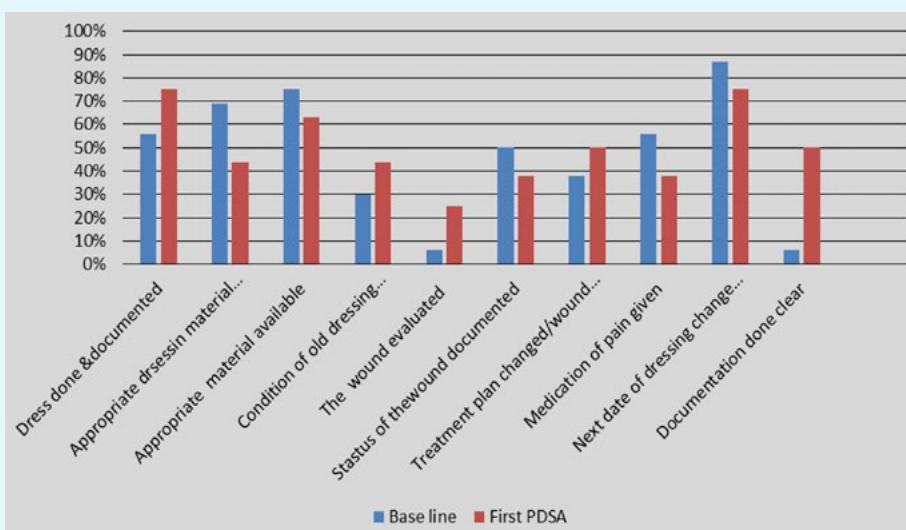
PDSA CYCLE

PDSA stands for **Plan – Do – Study – Act**. This describes how you should approach your QI project. When you **Planned** your strategy in Step 5 and start **Doing** your project, you need to **Study** the results after the first set of patients or first week or month. Then you might see some of your changes are working, but others are not being implemented as you meant them to, so you **Act** and make some changes. You make a new updated Plan, Do it, Study it, and Act upon it again if you think further changes need to be made.

The two projects below provide an example of how multiple PDSA cycles have been used to continually readjust the change and increase the improvements seen.

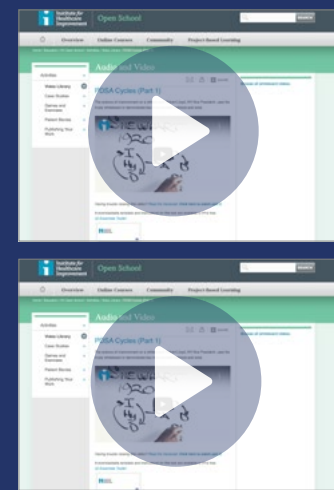


Example: Daniel’s project working to improve the documentation of dressing changes describes the PDSA cycle results:



Baseline and First PDSA cycle results

Watch these videos from the Institute for Healthcare Improvement explaining PDSA cycles:



Baseline and First PDSA cycle

Daniel's first PDSA cycle did not bring much positive change in the project. Some of the problems that were identified (as you can see below) with the actions that Daniel took to make his second PDSA cycle more successful:

'Study': findings from first PDSA cycle

- Some stakeholders did not know what to write in patients files.
- Some fields on the checklists were not filled out.
- Some care providers showed little knowledge of descriptions of burn wound assessment.
- Some staff complained that documentation in that way was time consuming.

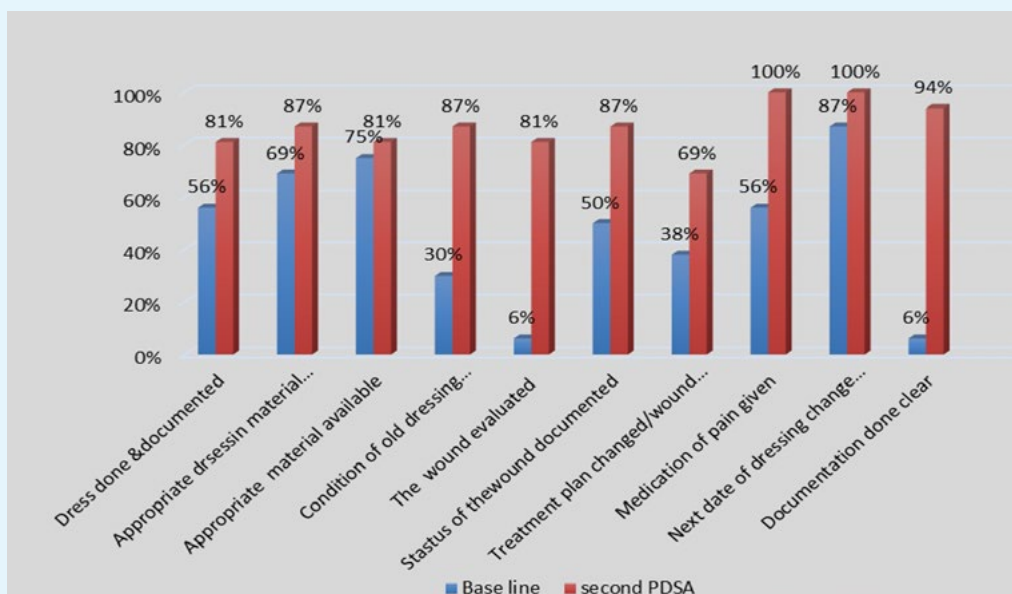
This might be a bigger problem than Daniel thought from the assessment in **Step 3**.

Also important for sustainability of the change (**see next step**)

'Act': changes incorporated for second PDSA cycle

- The checklist for collecting data was modified.
- Guiding Notes were introduced to improve documentation following dressing change.
- The stakeholders agreed to use the new system of documentation.
- Continuous orientations on the use of checklist after dressing changes was a norm.
- Presentation on dressing changes in burn and documentation involving the champions e.g. Ward Improvement Team.

A reminder to think through how to get stakeholders on board when you plan your strategy (**Step 5**)

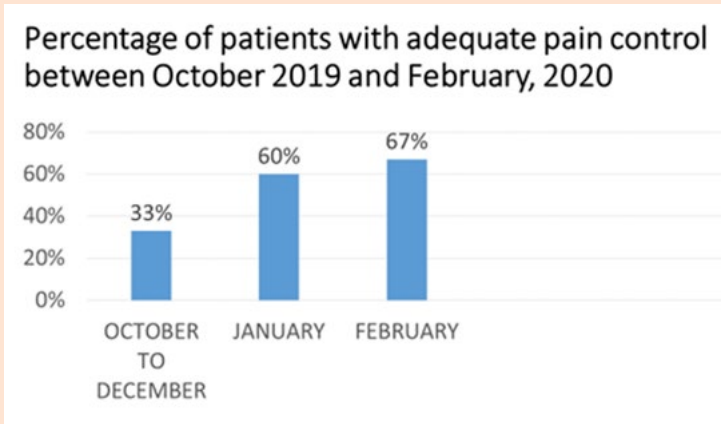


Baseline and second PDSA cycle results



Example: Richard also worked through PDSA cycles in his project.

A lack of patients that fit your study in the timeframe you established can be a challenge. Richard solved this by adding orthopaedic patients to his study for PDSA cycle 2.



PDSA CYCLE FROM OCTOBER TO DECEMBER	
<p>PLAN</p> <ul style="list-style-type: none"> Develop dressing guidelines Develop drug chart Orient stakeholders Empower patients to ask for pain control medication 	<p>DO</p> <ul style="list-style-type: none"> Interview patients Observe patients' reaction Audit case files
<p>STUDY</p> <ul style="list-style-type: none"> No need for new drug chart Drug was given at wrong time Few patients in burns unit Some patients still not being given medication Compare percentage of patients with effective pain control with baseline data 	<p>ACT</p> <ul style="list-style-type: none"> Offer more support to staff Reinforce initial interventions Orientate students Supportive supervision Include orthopaedic patients Take out new drug chart

TOP TIP

It is important to consider as a unit or ward team how small incremental changes could help improve the system. Start your change small, escalate what works and stop anything which doesn't work.

Sometimes changes can be unnecessary, or can be done in an easier way than you anticipated. Richard designed a new drug chart, but realised after studying the results of his first PDSA cycle that they weren't necessary.

STEP 8: BUILDING ON SUCCESS

When you have introduced and implemented your changes, and you can see they are making a difference, take a moment to congratulate yourself and the team! But you have to think about how you will **MAINTAIN** and **SUSTAIN** these changes – and you need to do that at the planning stage. It is important that you consider how to maintain the change from the start of your project, because if your change is not sustainable, you will have worked hard for nothing. Consider the following points:

- **Engage others** – if you motivate your team and stakeholders to change and involve them in each of the steps, it is much more likely that they will want to keep the changes in place.
- **Communication** – share data and knowledge to show the effects, and try to create commitment to the project.
- **Formalise and standardise the changes** – once a new process is implemented it must be monitored to ensure it is working well.
- **Training** – training should not only happen when a new change is implemented, but it should be an ongoing process that supports those affected by the changes made.
- **Evaluation & monitoring** – evaluation is important at every stage of the change.
- **Sustainability & control plans** – when your change has been integrated into routine practice rather than being considered as an extra thing to do, you really need to make sure the team doesn't slip back into the old way of doing things. This means monitoring key measures and having a plan to take action if things start to go backwards. You can keep using the PDSA cycle to monitor this.



Example: Ephrem found both expected and unexpected effects of his change:

- The intended change was to give more privacy to the patient during dressing changes. After the screen was implemented in the ward the patients felt more comfortable.
- An unintended side effect of this change was that it gives more confidence to the patients to express their feelings towards their privacy and dignity issues and it enhances the interaction between the nurse, doctor and patient.
- Another entirely unintended change is that after discussing the problem with the management, they provided an extra screen for another ward and repainted the walls of the ward to clean up the room and minimise infections!

Getting your unit or hospital management on board can result in even bigger changes than you were planning for!

Ephrem saw there were challenges to maintaining the change and made a strategy for sustaining:

- The change management and sustaining those improvements is very difficult because some nurses or doctors will not keep to the changes and dressings will be done without screens and they will expose private parts while doing medical procedures, so in order to sustain changes regular staff meetings, close mentoring and regular follow up on the checklist is needed.
- Specific strategies to sustain change include:
 - ▶ • **Maintaining the new routine** - which means using the screen in dressing rooms.
 - **Building motivation** - through staff appreciation and appraisal.
 - **Continuing to measure and report** - prepare checklists in order to maintain usage of the screen in the ward even if the ward head nurse is not there.
 - **Engage staff and management** - at Friday meetings, increase awareness towards using the screen in the room.

Ephrem is covering most of the points mentioned above to consider for sustainability: engage all involved; communicate; keep monitoring the change; provide training; and have a clear sustainability strategy.



The new screen being used in the room during wound dressings.

Once you have successfully implemented a change in your own ward or team, you will look for opportunities where the change may work on another ward or in another specialist unit. Maybe you can share resources, posters and tips with the other teams in your hospital to pick up similar changes or talk to management to show them the success you've had. Sharing results with your team, stakeholders, but also your wider hospital or health post network is important!



Example: Daniel gave several presentations to hospital staff and stakeholders about his project on the adequate documentation of dressing changes and also designed a poster to disseminate the message and success of his project:



MALAWI HOSPITAL

DOCUMENTATION FOLLOWING DRESSING CHANGES IN BURNS

1. Review patient file
- Assemble:**
2. Documentation tools
3. Dressing materials
4. Perform procedure according to protocols
5. Document by filling documentation Guideline
6. Put back dressing materials
7. Recheck patient file for work done & sign.

Documentation:
connecting

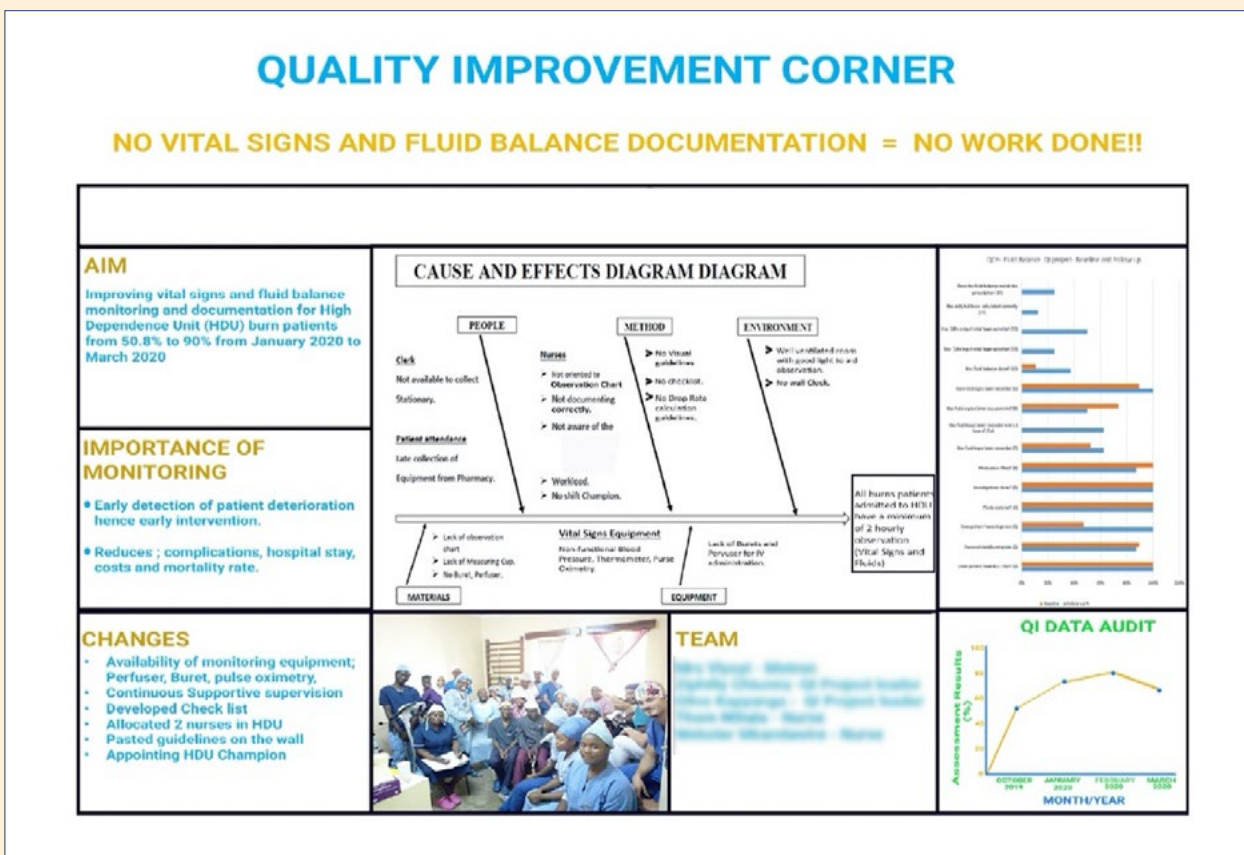
PATIENTS PROVIDERS &

CARE TEAM *for continuous care*

Documentation: *an excellent communication in patient care!!!*



Example: Olive & Ziphilly also used a poster to present their quality improvement project:



Posters, presentations, but also videos, messages and personal meetings can be used to spread the word about your QI project. Think about the audience you want to reach. This can be colleagues in your ward and your hospital, or a group of student nurses or other health professionals in your local town or region.

You can also think about spreading your success and the lessons that you have learned further from home. This can be via presentations or posters at a conference or even an article for a journal. Think of ways to share your success and lessons learned online if there is a useful or professional platform.

Be careful when you share information and photos about your project that you always protect the privacy of your patients and colleagues!

OVERCOMING CHALLENGES

Every quality improvement project will encounter challenges along the way. These can be all sorts of challenges, from a lack of funding and colleagues who are not supportive to broken equipment or your data not showing any improvement. Whatever the problems are, try to adapt your project where necessary and run another PDSA cycle to see if you can make your change.

Common barriers for sustaining and spreading change:

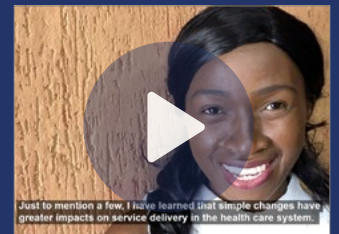
- ✓ Idea that it takes too much time or is not important
- ✓ Considered additional workload for staff
- ✓ Process is unclear.
- ✓ Resources are not identified.

How to reduce these challenges to change:

- Explain why the change is important, e.g. patient outcomes.
- Do not make changes that are unnecessary.
- Understand and address causes of resistance, e.g. staff time.
- Publicise the results.
- Show appreciation for the effort made by team members.
- Expect changing conditions and be prepared.
- Balance changes within the system to ensure other processes are not adversely stressed.
- Run as many PDSA cycles as necessary to gain confidence in your change!

Watch this video

Patricia K reflects on the key things needed for a QI project. That includes not to be discouraged by resistance!



Example: Patricia lists some challenges that her hand hygiene project faced and what she has done to overcome those:

- Resistance to change among health workers.
- Some health workers thought that choosing a team leader each day to assess & record the practices would add more workload.

> This was overcome by reducing the number of days for data collection to 2 per week.

- Myths about hand hygiene (like that some health workers did not wash hands before the procedure or even after the procedure because they would use gloves and thus believed it not necessary).

➤ *This idea was changed with the education we were giving on hand hygiene.*

- The hospital ran out of stock of hand rub.

➤ *This was overcome by making our own hand rub using glycerine & methylated spirits and some even bought their own hand rub.*

- Since the posters were written in English some patient’s guardians used the hand washing buckets to clean their utensils or even wash their faces.

➤ *This was overcome by health education and additional posters in our mother language so that they could read and understand the use of the buckets.*

Patricia’s sustainability plan:

- Keep track of all activities/records of the project and present monthly reports.
- Staff/team motivation. ◀.....
- Ensure project ownership.
- Orientation of new staff on the project.
- Supportive supervision.

Patricia is covering most of the points mentioned above to consider for sustainability: engage all involved; communicate; keep monitoring the change; provide training; and have a clear sustainability strategy.

Staff involvement in QI projects can be a challenge. People often do not like change, and busy healthcare staff can be afraid it adds to their high workload or makes their work more complicated. It is therefore very important to communicate the need for the project and the results of making changes.



Example: Richard also encountered some challenges in his project on the use of pain medication during dressing changes:

CHALLENGES

- **LIQUID MORPHINE STOCK RAN OUT.**
 - Discussed with relevant stakeholders to ensure the drug is always in stock.
- **NON ADHERENCE TO THE GUIDELINES BY SOME MEMBERS OF STAFF.**
 - Discussed with relevant stakeholders during supportive supervision and dissemination.
- **FEW PATIENTS WERE ADMITTED BETWEEN OCTOBER AND DECEMBER.**
 - Included orthopaedic patients in the projects who had wounds from January 2020



Example: Ephrem experienced resistance from colleagues in implementing the privacy screen during dressing changes:

Ephrem encountered a **challenge** in the available space and in the response from the nurses

Explaining the need for the change helped to get the nurses on board

“At first, when some nurses are adopting the new change, they are not happy to put the screen in the dressing room because some think that the space is narrow and if you put it there it worsens the space – by having a Friday morning meeting with the staff and by showing them the data I just collected from the patient personally, and showing them the results that the patients really feel that their privacy is not maintained. So in order to give the best quality care I told them to use the screen whenever they expose the private parts of the patients.”

Involving staff and rewarding involvement are great ways to ensure staff are happy to work with you on the change and they often have good ideas about how to improve care as well!

“At first there was some resistance to get them on board, but after some orientation and involving them to come up with problems and solutions, things changed.”

“The staff were praised during hand overs and monthly reports. Praising someone when they have done something well boosts the morale and they will aim to do their best by implementing the interventions.”

TOP TIPS FROM THE PARTICIPANTS

Their advice after completing their first QI project:



- ✓ **Stakeholders** should feel they own the project: evidence of the impact should be supported by data that has been collected and analysed.
- ✓ **For small QI projects**, change is possible with the locally available resources.
- ✓ **Identify key people** in each area whom you can use to help make progress; remember they can also influence others.
- ✓ **Involve your team** and consider ways to get people to get involved with what you are trying to do from the start.
- ✓ **Communicate your progress** and give recognition to those who have contributed and made an impact on the projects.

Kibrom highlights the importance of responsible people to succeed and motivate people'



- ✓ **Sustainable change** in QI project needs change of a system not a single element.
- ✓ **Not all interventions** will solve the problem but use this as an opportunity to consider why the intervention didn't work and think of different ideas.
- ✓ **Don't try to do too much** in one PDSA cycle.
- ✓ **Listen to those around you** and include their ideas in the project. Listening to others will help you consider potential challenges and how you might overcome them.
- ✓ **Change is an ongoing process**, change has its challenges but we need to be focussed and never give up, every step is important!
- ✓ **Measurement** and performance feedback must be part of the quality improvement project to learn and improve.



SUMMARY

You have seen the eight steps of a successful Quality Improvement project and what each step involves. To bring everything together we have taken Daniel's project as an example to show all eight steps in order for a single project. Daniel worked on a project to improve the documentation of wound dressing changes in his ward. Despite little change in his first PDSA cycle, he was able to change the rate of correctly completed.



IDENTIFY THE PROBLEM

Inadequate information was being documented about dressing changes for burn patients in a hospital in Malawi, compromising the continuity of care for the patient.



BUILD A TEAM

Nurses, doctors, patient attendants and ward clerks were all involved in the project. They helped develop the guideline to improve documentation. Twice weekly meetings were organised with all the stakeholders to evaluate the progress of documentation, isolate issues and suggest methods for improvement.



UNDERSTAND/ASSESS THE PROBLEM

A SWOT analysis was used to unpick the problem and understand it more holistically. (SWOT diagram on following page). Daniel also used a driver diagram at this stage.

A checklist was created that identified 10 variables associated with documentation standards. This checklist demonstrated a gap in documentation quality, with only 44% of the dressing change notes completed correctly. The staff reported to have too little time for filling in the notes adequately and consistently.



CREATING A SMART AIM

- S** Improve documentation after dressing changes for burn patients.
- M** Utilisation of a checklist to measure specific elements of documentation quality. Improve documentation from 44% to 90%.
- A** Project aim was achievable as the work was within the remit of Daniel's role within his unit, and the project was not too costly.
- R** The project was relevant as improving documentation will help improve patient care and treatment outcomes and thereby improve quality of care.
- T** The project timeframe was four months, from Nov 2019 - Feb 2020.

STEP
05**STRATEGIES FOR CHANGE**

A documentation guideline was designed to allow wound dressers to tick, state and agree or disagree against set indicators for a more straightforward and consistent documentation process. Training on how to use the guideline was provided for the appropriate people (in the second PDSA cycle) to increase uptake of correct use of the guideline. The proposed aim of introducing the guideline was to reduce time on documenting, increase quality of care and provide a step by step approach in dressing changes.

STEP
06**MEASURING THROUGHOUT**

Each week, the ward clerk collected information on the completeness and quality of all patient wound dressing documentation. This was then presented at the stakeholder meeting to provide information on the progress of the project.

STEP
07**ANALYSE AND RESPOND**

On the first PDSA cycle there was no significant improvement in documentation, the rate changed to 45% from 44%. Investigation through collecting feedback from patient attendants found that this was mainly down to a gap in knowledge about how to correctly document, as well as time pressure. To tackle this, training was developed on how to properly document using the guideline. This was given to the staff on the unit, and there were numerous reorientations on documentation for the staff after this. Additionally, training on burn management and QI following dressing changes was given to 90 health workers, empowering the attendees to improve documentation for dressing changes. On the second PDSA cycle, correct documentation rate was 85%.

STEP
08**SUSTAINING CHANGE**

Within the timeframe to ensure sustainability, Daniel ensured that resources were available at all times. He also organised weekly updates on the progress of the project to all the appropriate stakeholders and conducted close monitoring and evaluation of the project. Daniel also gave presentations about his project at his own hospital and other hospitals in the district.

SWOT analysis chart - Daniel's project

<p><u>Strengths</u></p> <p>All of the experts on wound dressing - nurses, doctors, and patient attendants - are all readily available.</p>	<p><u>Weaknesses</u></p> <p>Low support from administrative staff, and low budget to carry on the project</p>
<p><u>Opportunity</u></p> <p>There is high patient availability, there is unity surrounding the problem from the necessary stakeholders and the hospital is a referral unit.</p>	<p><u>Threats</u></p> <p>High workload of the stakeholders, multiple roles of the stakeholders, increasing the costs to carry out the project, resistance to change.</p>

Links to further information

Interburns

<https://interburns.org/>

The Centre for Global Burn Injury Policy and Research

<http://globalburns.org/about-us/>

Institute for healthcare improvement

<http://www.ihl.org/>

TDR Implementation research toolkit

<http://adphealth.org/irtoolkit/>

https://www.who.int/tdr/publications/year/2014/9789241506960_workbook_eng.pdf

WHO Implementation Research in Health: a practical guide

<https://www.who.int/alliance-hpsr/resources/implementationresearchguide/en/>

The Health Foundation

<http://www.health.org.uk/sites/health/files/QualityImprovementMadeSimple.pdf>

Consolidated Framework for Implementation Research

<https://cfirguide.org/>

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Swansea University
Prifysgol Abertawe

Centre for Global Burn Injury Policy and Research
Canolfan Polisi ac Ymchwil Anafiadau Llosgi Byd-eang



Contact Us for further information

**Centre for Global Burn Injury Policy
and Research**

📧 globalburns@swansea.ac.uk

🐦 [@cgbipr](https://twitter.com/cgbipr)

globalburns.org

Interburns

📧 office@interburns.org

🐦 [@interburns](https://twitter.com/interburns)

interburns.org