



ENGAGING PEOPLE IN  
IMPROVING QUALITY

# Teaching Toolkit



BC PATIENT SAFETY  
& QUALITY COUNCIL  
Working Together. Accelerating Improvement.



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# INTRODUCTION TO EPIQ

**Engaging People in Improving Quality (EPIQ)** is designed to help bring people along on the journey to quality improvement and guide improvement efforts within the context of health care. Designed as a teaching resource for those who want to spread knowledge of quality improvement in healthcare, EPIQ is intended to make teaching others easier to do by providing teaching materials, including slides, speaking notes, and activities.



**EPIQ contains a series of modules focused on increasing understanding of and engagement with quality improvement in health care. The objectives of the EPIQ module series are to:**

- Provide a set of instructional tools and resources to facilitate learning about quality improvement.
- Support the understanding of basic quality improvement principles and methods, as well as the multiple dimensions of quality in health care.
- Increase capacity and capability for patient safety and quality improvement in BC's health care system.

EPIQ is designed to be easy to use and customizable. The modules can be delivered either as individual sessions or continuously as a workshop, allowing you to tailor the materials to suit your audience by removing or adding content and activities. The target audience for these modules includes anyone who works in health care that is interested in learning more about how to make improvements in their work. The audience could be small or large - the content, materials, and approaches can all be adapted to suit the different needs of each group.



# OVERVIEW OF EPIQ MODULES

There are four modules within the EPIQ teaching toolkit, each with a different focus for learning. Each module contains foundational information for learning about quality improvement, as well as a variety of activities, discussion topics, and additional resources to support its content. Here are the four modules, and a brief description of what each covers.

## FUNDAMENTALS FOR CHANGE

This module explores what quality improvement means and why quality and safety are important in health care. It also highlights the importance of culture and engaging others to achieve success in your quality improvement efforts.

## THE PROCESS FOR IMPROVEMENT

This module describes the improvement process using the Model for Improvement. It also covers what is needed to get going with an improvement project, including initiating a project charter.

## MEASURING AND USING DATA

This module focuses on using data and measurement approaches in improvement. It emphasizes the importance of collecting data over time and covers how to choose measures for a project and develop a plan to collect data.

## FROM IDEAS TO IMPLEMENTATION

This module discusses tools and methods for generating change ideas to meet specific aims. It also focuses on why it is important to test changes before moving directly to the implementation phase.

There is a tremendous amount of information related to health care improvement available, and EPIQ does not try to cover all of this content. Rather, its goal is to serve as a tool that can teach others about the basics of improvement and get them engaged in efforts to make care better. If you are looking for more information and resources about improving the quality of health care, visit the BC Patient Safety & Quality Council website [www.bcpsqc.ca](http://www.bcpsqc.ca) or check out other organizations such as NHS Improving Quality, Intermountain Healthcare, and the Institute for Healthcare Improvement.

# USING THE MODULES

Each module includes a short teaching presentation, with options to expand the session through additional learning activities. The additional activities are designed to offer opportunities for deeper learning and can help participants apply their new knowledge to make improvements in their work.

## The EPIQ teaching toolkit contains the following components in each module:



### PRESENTATION MATERIAL

Each module has presentation slides and corresponding speaking notes. The slides can be downloaded from the EPIQ website [www.bcpsqc.ca/epiq](http://www.bcpsqc.ca/epiq). The speaking notes include brief key messages and you may enhance them by adding your own details.



### OPTIONAL ACTIVITY

Each module has one or more activities that can be added in during or after the presentation. The instructions for how to prepare for and lead each activity are included.



### VIDEO

Some activities include showing a short online video.



### WORKSHEET

Some activities include worksheets for participants to use. There is a hard copy in the worksheets section that can be photocopied for each participant or you can access an electronic version of each worksheet on the [EPIQ website](http://www.bcpsqc.ca/epiq) and print copies from there.



*Look for the icons to help you navigate through the modules.*

Also note that there are questions inserted throughout each module that you can choose to pose to participants for discussion in small or large groups. Additionally, there is customizable content with a variety of examples from different sectors in the health care system that you can choose to include, depending on what is most relevant to your learners. Finally, there are references for each module to provide background information and additional resources. All the materials in the EPIQ teaching toolkit are also available electronically on the [EPIQ website](http://www.bcpsqc.ca/epiq).



# PLANNING YOUR EPIQ SESSION

We invite you to make the modules your own by adapting them to suit your individual needs for quality improvement in your setting. Recognizing that there is no single way to teach improvement, the modules are designed in a way such that you can add, delete, and combine them to fit your context, audience, and objectives. In planning to lead a session, you can select and prepare the materials you want to include – we encourage you to make each session your own and to add in additional notes that will bring the ideas to life for your learners. Try to be aware of the unique needs and interests of each audience you work with so you can frame the materials to be meaningful and engaging for them.

If you are planning to incorporate several optional activities and/or facilitate multiple modules at once, it may be helpful to develop an agenda. An agenda is a simple yet effective way to organize and provide structure for your session. It can be fairly simple, just with the outline of what will be covered and the anticipated time slots for addressing each topic. Sharing an agenda with participants helps them know what to expect in the session. You can also develop a more detailed agenda for yourself as a facilitator and include additional notes, cues, and reminders to assist you in delivering the session. There is a template for a simple agenda in the appendix and on the [EPIQ website](#) that you can use.

# DEVELOPING IMPROVEMENT CAPABILITY IN OTHERS

Teaching and engaging others in quality improvement can make a big difference! When others are involved, they learn more about the science of improvement and can begin to apply their knowledge in all areas of their work. They can also pass on their knowledge and engage their peers, and this can build momentum to achieve significant improvements across the system.

**When you are communicating about quality improvement, here are a few tips to keep in mind:**

- **Hook people in** - Think about the different people you want to engage and be purposeful in how you frame your message.
- **Connect with their hearts and minds** - Try to convey both the logical aspects of the work, and also speak to emotions. Think about what values are most important to your audience and emphasize how quality improvement fits in with these values.
- **Link diverse groups** - Include different groups of people and look beyond obvious channels; see who you can connect to create some synergy.
- **Use a range of strategies** - Be creative and keep it interesting. Think about mixing in stories, anecdotes, pictures, and humour in your messaging.

# EFFECTIVE TRAINING

The best teacher for improvement is experience. Providing people with the opportunities to apply their knowledge, either in the classroom or in their work setting, works well to reinforce learning. From the table below, we can see how active learning strategies work to build learners' knowledge, skill, and application of material.

<b>TRAINING APPROACH</b>	<b>KNOWLEDGE</b> Understanding of material	<b>SKILL</b> Ability to demonstrate new tools and concepts	<b>APPLICATION</b> Ability to apply to new situations
Lecture, Information transfer	80%	10%	0%
Demonstration, modeling	100%	30%	0%
Practice, classroom exercises	100%	70%	20%
Exercises in work setting	100%	90%	50%
Coaching and review	100%	100%	80%

*Adapted from Langley et al, 2009*

We encourage you to use the optional activities in the EPIQ modules to give your learners the opportunity to deepen their thinking about the content. Further to this, following up with learners to review content and provide coaching in their work setting will help them to transfer their knowledge to new situations and continue to develop their capabilities for quality improvement.

# PREPARING TO FACILITATE AN EPIQ SESSION

- Decide what you want to do.** Determine what your learners need and select the module(s) that will help you meet this need.
- Find the space to do it in.** Book a classroom or meeting space to host your session.
- Get your gear.** Reserve a computer, projector and any other equipment you might need.
- Round up participants.** Let potential participants know about your session and encourage them to attend.
- Food for thought.** Consider ordering catering or bringing snacks to your session.
- Get your stuff ready.** Pick the learning activities you want to include, print relevant worksheets, and gather materials like felt pens, flip chart paper, tape, etc.
- Get yourself ready.** Study the materials and content, calm any jitters, and prepare yourself to facilitate an awesome session.
- Prepare your space.** Arrange furniture so the participants will be able to hear and see you, as well as connect with each other. Test your AV equipment.
- Ready, set, go.** Show up early, welcome people, and then make learning happen!
- How'd it go?** Don't forget to have your participants evaluate the session and send in your facilitator feedback to BCPSQC.

# HOW TO BE AN EPIQ FACILITATOR

- Have a plan. Outline the content you intend to cover, the time allotted, and the teaching methods you will use.
- Familiarize yourself with the materials and know your content well.
- Practice, practice, practice to get more comfortable and make sure the timing is right.
- Make it cozy – keep the room comfortable for learning - spacious, quiet, and just the right temperature.
- Be prepared for unexpected technical problems - know who you can call for help if needed.
- Break the ice – get people talking early on and encourage their contributions throughout the session.
- Ease into your content with introductions and an overview of what people can expect from the session.
- Pay attention to your learners and respond to their body language and signals of engagement.
- Keep it simple and, when explaining complex ideas, use examples that people can relate to.
- Move around the room and engage with learners throughout the session.
- Ask questions to stimulate discussion and use activities to get participants actively involved.
- Stay focused on the topic at hand and gently reel in any tangents.
- Try to anticipate some questions you may be asked.
- Have fun with it - your enthusiasm will inspire others!
- Stay in touch – share your contact information so participants can follow up if they have more questions.
- Share your successes in facilitation and teaching with others so they can learn from your experience.
- Read your participants' evaluations so you can improve how you deliver future learning sessions.



*For more hints and ideas to help make your learning session a success, check out the [BCPSQC Guide to Successful Presentations](#).*



# EVALUATION

EPIQ also includes evaluation forms to collect feedback from your learners. This feedback can help you reflect on your sessions and think about ways to continually improve your teaching. The evaluation forms are available in the worksheets section of this book and on the EPIQ website. 



*Continuous improvement is very important to us too! EPIQ is new and while we have had lots of input from both content experts and test users, we know that there is still more to learn about how to make this as useful and effective as possible. There are many more topics and additional content that we could add while EPIQ continues to develop over time. As more people use the modules and contribute their feedback and suggestions for improvement, the materials can be revised and updated versions may be released.*

*Please share your feedback each time you use EPIQ to let us know what worked well, as well as ideas for improvements or additional materials. An electronic survey to share your feedback is available on the EPIQ website.*

# FACILITATOR WHAT IFs

What if I ask a question and no one responds?

Try to be patient. It can be very difficult to stand silently in front of everyone, but often in these silences participants are thinking. Sometimes it feels like an eternity, but it takes time for participants to formulate a response. If there is still no one speaking up, you can try rephrasing your question or giving an example of one possible response to get the conversation rolling.

What if I want to teach a module, but I don't know very much about the content myself?

An important part of preparing to teach is having knowledge about the content. There are many resources included within the EPIQ materials that you can explore to deepen your understanding. There may also be people within your organization who have expertise in the areas you are looking to learn more about. There are also resources and supports available within the BCPSQC that may help to build your knowledge of the content.

What if my session goes really quickly and there is lots of time left at the end?

It can be difficult to predict how long a session will take. Using an agenda to block out your time and plan each piece of your session can help you stay on track. Also, it can be helpful to have a plan for an extra activity or additional discussion questions that you can use just in case there is extra time.

What if my session goes really slowly and there is not enough time to cover everything?

Using an agenda to plan your session will help you maintain the right pace. If you find there is more content than you will be able to cover, don't rush. Going through things really quickly may make it hard for learners to keep up, and then your session is not very effective. If you've planned to do more than the time will allow, see about having a follow-up session and adjust your timing for next time.

What if someone asks a question and I don't know the answer?

This will most certainly happen at one time or another as no one has ALL the answers. First be sure you understand the question clearly. Pausing to reflect on the question or restating it may help bring some ideas to mind. Alternatively, there may be other people in the session who have some thoughts on the matter so you could invite participants to address the question. And there's also absolutely nothing wrong with simply saying you don't know but you will look into it and let people know what you find out.

What if the session gets side-tracked?

Things can go off track sometimes. If you feel that the focus has shifted, you need to decide if the tangent is worth pursuing, or if it is better to get back to the content as planned. If it is something that many of the participants seem engaged in, acknowledge that it is off track from what was planned and see if they would like to spend a short amount of time on it, or return to the intended focus and save that conversation for another time. Gently guide people back and be careful not to abruptly cut off anyone's ideas.

What if a conflict or debate emerges in the session?

Intellectual debates can be great for learning, but can also be very challenging to facilitate. Try to summarize the different points of view as they are being shared, emphasizing the differences among the concepts and ideas, rather than the people themselves. If it seems to be getting out of hand, acknowledge participants' enthusiasm and gently guide participants back to the intended focus.

# ACKNOWLEDGMENTS

EPIQ would not have been possible without the support, input, and guidance from a number of different sources. Many thanks to the organizations whose resources were reviewed and consulted in the making of EPIQ, and to the many people who gave their input and feedback during the initial development, reviewed and tested early versions, and shared their support along the way – this wouldn't have been possible without you! Thank you!

+ FUNDAMENTALS  
FOR CHANGE





# FUNDAMENTALS FOR CHANGE

This module explores what quality improvement means and why quality and safety are important in health care. It also highlights the importance of culture and engaging others to achieve success in your quality improvement efforts.

## LEARNING OBJECTIVES

**By the end of this module, participants will be able to...**

- Define quality and quality improvement in health care
- Appreciate the importance of addressing complexity and culture in improvement initiatives
- Engage stakeholders and work as a team to achieve improvement

## THIS MODULE CONTAINS:



**Twenty-one slides with speaking notes and questions for group discussion. (45-60 minutes)**



**Seven optional learning activities:**

- Quality Improvement in Health Care - video (30 minutes)
- BC Health Quality Matrix - worksheet (30 minutes)
- Current and Desired Culture - worksheet (30 minutes)
- Mindset Shift - worksheet (30 minutes)
- Framing - worksheet (30 minutes)
- Team Planning - group activity (30 minutes)
- Engaging Stakeholders - worksheet (30 minutes)



*Remember to make this module your own! Add in examples and details that will bring the ideas to life for the learners.*

# + FUNDAMENTALS FOR CHANGE



## By the end of this module, you will be able to...

- Define quality and quality improvement in health care
- Appreciate the importance of addressing complexity and culture in improvement initiatives
- Engage stakeholders and work as a team to achieve improvement



### Speaking Notes:

- This module is meant to introduce what quality improvement is and how it fits in the health care setting. It is intended to start your thinking about what it takes to successfully improve and to begin to take some initial steps towards achieving this.
- The focus of this module is on:
  - Defining quality improvement and the dimensions of quality, based on the BC Health Quality Matrix
  - Recognizing complexities and the role of culture in doing improvement work
  - The importance of engaging others (including clinicians, patients, families) and working as a team

# WHAT IS MEANT BY *QUALITY IMPROVEMENT* IN HEALTH CARE?

Systematic, data-guided activities designed to bring about immediate improvement in a health care setting.

(Lynn et al., 2007)



## Speaking Notes:

- There are various definitions, but there are common components of quality improvement:
  - Systematic – it is not simply the introduction of a new change
  - Guided by data – it is not just implementing changes and assuming things get better
  - Emphasizes immediate action – it is about testing new ways to do things and making changes right away
- Quality improvement is about understanding what we do and testing ways to do it better.



# Optional Activity

## QUALITY IMPROVEMENT IN HEALTH CARE

### Purpose

To introduce the notion of quality improvement in health care, including its origins and basic principles.

### Time

30 minutes

### Materials

- Quality Improvement in Health Care – Mike Evans (Length 11:08)  <http://bit.ly/IN7vvnc>
- Computer
- Projector and screen
- Speakers

### Preparation

Test the video ahead of time, and have it loaded and ready to go.

### Instructions

Watch the video and note any points that stand out to you. What benefits do you think quality improvement methods might bring to health care? What might some of the challenges be?

### Debrief

Ask participants to share their thoughts in small groups or in an open discussion.

### Optional Discussion Questions

- How can we use quality improvement to make care better?
- What is a “systems thinker”? Or a “change agent”?
- Can you think of any opportunities for improvement in your area? How might you get started?

# DEFINING QUALITY

Effectiveness

Appropriateness

Accessibility

Acceptability

Safety

Equity

Efficiency



## Speaking Notes:

- When people use the term “quality”, they may be talking about lots of different things.
- The meaning of quality is multidimensional, with a variety of interdependent aspects.

## Optional Discussion Questions:

- What do you think each of these terms means in health care?
- Can you think of an example from your work that represents each dimension of quality?

“Quality” is not a department; it is everyone’s job and must become part of our everyday accomplishment.

- Robert Lloyd



# Optional Activity

## DIMENSIONS OF QUALITY

### Purpose

To help participants start to understand the definitions and inter-related nature of quality dimensions.

### Time

30 minutes

### Materials

- Dimensions of Quality worksheets 
- Pens

### Preparation

Print a copy of each worksheet for each participant.

### Instructions

This activity can be done individually or in pairs. Create a definition for each dimension and describe an aspect of your workplace that reflects that dimension of quality.

### Debrief

Have participants share their definitions and examples. Use the worksheet key provided to verify and summarize responses.

### Resources

BCPSQC Health Quality Matrix, 2008 <http://bit.ly/1H4N5G5>

# 5 FUNDAMENTAL PRINCIPLES OF IMPROVEMENT:

1. Know why you need to improve
2. Have a way to tell if the improvement is happening
3. Develop an effective change that will result in an improvement
4. Test changes well before trying to implement
5. Know when and how to make the change permanent

(Langley et al., 2009)



## Speaking Notes:

- The concepts of improvement and change are closely linked.
- Changes that result in improvement...
  - Alter how the work or activities are done
  - Produce visible, positive differences compared to how things were
  - Have a lasting impact

# KEYS TO SUCCESS IN QUALITY IMPROVEMENT

- Understanding the system in which we function
- Attending to the complexities of dealing with people
- Continuously learning and developing knowledge about how to make things better



## Speaking Notes:

- Achieving improvement requires an in-depth understanding of how things currently work, careful attention to how different people are involved, and curiosity about what factors contribute to success.

**+** *Note that quality improvement is different from research. The purpose of research is to test hypotheses and generate evidence for best practices and the purpose of quality improvement is to implement best practices. In quality improvement, the focus is on application of research to make effective and sustainable change, taking evidence and turning it into the new way of doing things.*

# HEALTH CARE IS A SYSTEM

## System:

- An interdependent group of items, people, or processes working together towards a common purpose.
- Parts of the system are aligned by this common purpose and processes within the system help to achieve this purpose.



## Speaking Notes:

- In a system, everything affects everything else. A change in one area may result in improvement in some ways, but could also cause harm in other parts of the system.
- When thinking about making changes, it is important to consider all the interdependencies within a system and both the positive and negative potential results.

Every system is perfectly designed to achieve the results it achieves. - Paul Batalden

# SIMPLE, COMPLICATED, COMPLEX

**TABLE I: SIMPLE, COMPLICATED & COMPLEX PROBLEMS**

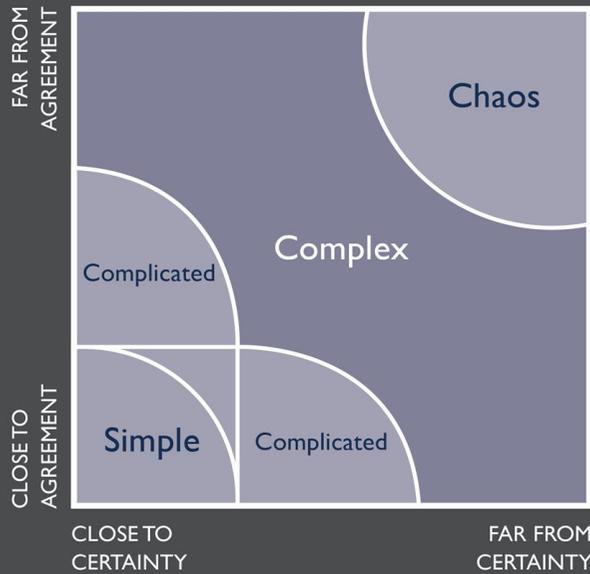
Following a Recipe	Sending a Rocket to the Moon	Raising a Child
<ul style="list-style-type: none"> <li>• The recipe is essential</li> <li>• Recipes are tested to assure easy replication</li> <li>• No particular expertise is required. But cooking expertise increases success rate</li> <li>• Recipes produce standardized products</li> <li>• The best recipes give good results every time</li> <li>• Optimistic approach to problem possible</li> </ul>	<ul style="list-style-type: none"> <li>• Formulae are critical and necessary</li> <li>• Sending one rocket increases assurance that the next will be OK</li> <li>• High levels of expertise in a variety of fields are necessary for success</li> <li>• Rockets are similar in critical ways</li> <li>• There is a high degree of certainty of outcome</li> <li>• Optimistic approach to problem possible</li> </ul>	<ul style="list-style-type: none"> <li>• Formulae have a limited application</li> <li>• Raising one child provides experience but no assurance of success with the next</li> <li>• Expertise can contribute but is neither necessary nor sufficient to assure success</li> <li>• Every child is unique and must be understood as an individual</li> <li>• Uncertainty of outcome remains</li> <li>• Optimistic approach to problem possible</li> </ul>

*(Glouberman and Zimmerman, 2002)*

## Speaking Notes:

- Simple systems are mostly predictable. For example, a recipe gives you a high level of certainty and agreement that the cake or roast will turn out a certain way.
- Once you start moving into complicated and then complex systems, the degree of certainty and agreement decreases.
- Complicated systems are like sending a rocket to the moon; the instructions are pretty complicated, but your results are consistent.
- Complex systems are like raising children; there may be theories about effective methods, but regardless of their application, outcomes can be unpredictable and variable.

# COMPLEXITY



*(Zimmerman, Lindberg, and Plsek, 2013)*

## Speaking Notes:

- Systems can be simple, complicated, complex, or even chaotic. This grid illustrates the differences among these types of systems.
- A simple system is where you have a high degree of certainty and a high level of agreement.
- When we try to apply simple solutions to a complex problem, we tend to have a high failure rate.
- It is difficult to predict what will happen in a complex system so we need to test ideas to see if they will work before implementing them.

# HEALTH CARE IS A COMPLEX ADAPTIVE SYSTEM

## Adaptive / Resilient / Uncertain

Complex adaptive systems are composed of many interdependent, heterogeneous parts that self organize and co-evolve.



### Speaking Notes:

- In a complex adaptive system, the relationships between people or parts are unpredictable; the same action can return different results.
- In systems like these, problems do not have clear solutions; solutions are context-specific and are not easily transferred. The most effective solutions often come from people who are part of the process.
- This is why we need to pay attention to the culture within a complex adaptive system.

# DEFINING A QUALITY CULTURE

*“The way we do things around here...”*

- Shared beliefs, attitudes, values and norms of behaviour between colleagues in an organization
- Way of making sense of the organization
- Way things are understood, judged and valued



## Speaking Notes:

- Culture can be thought of as “The way we do things here”.
- It’s about the beliefs we share, what we expect of each other, what’s considered normal, and the way we typically behave.
- The culture of an organization is hard to describe in precise terms, but it is very powerful in determining what is considered acceptable or unacceptable.
- No matter how well thought-out a quality improvement initiative may be, failing to consider the culture in your organization can destroy the best laid plans.

## Optional Discussion Questions:

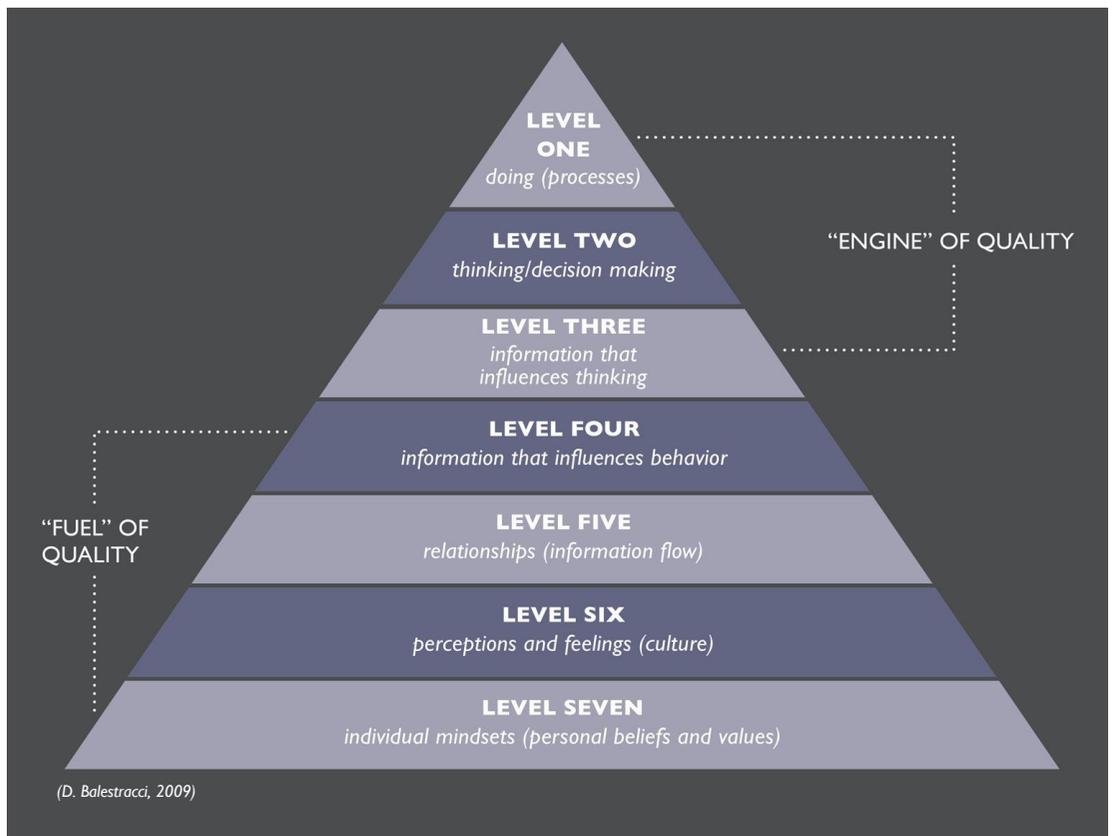
- Can you think of an example where the culture in the area that you worked in was very positive? Describe how you knew it was positive.
- What about a time when the culture was not positive? Describe what that was like.
- Some organizations are known for their culture - can you think of any examples? What is notable about their culture?



### Speaking Notes:

- Health care is composed of both technical and cultural elements. The technical elements are the expertise held by providers and the application of evidence based practices and policies. The elements of culture include the relationships among the people within the system and interactions between parts of the system.
- We may tend to focus on the technical aspects of improving care, but we can't fix problems related to culture with technical solutions.
- To help determine the best course of action to address a problem, it is important to identify which aspects of the problem are technical, and which aspects relate to culture.

Leading change is more like 10% technical competence and 90% emotional intelligence. - Peter Fuda



## Speaking Notes:

- The “engine” to drive quality at the top of this pyramid includes the technical side of things that we tend to think about when it comes to doing improvement work.
- We also need to focus on the “fuel” of quality, at the bottom of the pyramid. Fuel is where culture comes in and helps us address the complexities in the health care system.
- By focusing on the people, the relationships, the culture, and building a foundation for improvement, we can ensure our efforts to improve are effective and sustainable.

# CULTURE EXISTS AT A LOCAL LEVEL

- Each unit, department, or team has a unique culture.
- Because culture is unique and culture is complex, the process for improving will look different every time.



## Speaking Notes:

- It is important to recognize that culture is different in different work areas. Even in one facility you can have different cultures on different floors.
- When it comes to quality improvement, we need to pay attention to culture and ensure that the changes we make will be successful in our own unique culture.
- For example, when it comes to engaging people in a change initiative, they may be reluctant if they feel like they do not have permission to try new things. Or if the culture does not support speaking up about patient safety concerns, it will be challenging to engage people in creating solutions.

Culture eats strategy for breakfast. - Peter Drucker



# Optional Activity

## CURRENT AND DESIRED CULTURE

### Purpose

To consider what is unique about the culture that participants work in.

### Time

30 minutes

### Materials

- Set of 3 Culture: Current & Desired worksheets 
- Pens

### Preparation

Print a copy of each worksheet for each participant.

### Instructions

Think about the culture you work in as it currently is. Using the “Culture-Current” worksheet, circle the ten items that best describe that culture. Then reflect on the ideal culture you’d like to work in. Using the “Culture-Desired” worksheet, circle the ten items that best describe that culture. Record each of the ten items in their respective circles on the third worksheet, with items that are on both lists in the middle.

### Debrief

After completing the sheet individually, participants can pair up and discuss their thinking about culture in their workplace. Consider how much overlap exists between the items you’ve circled. What might this mean for quality improvement efforts in your area? Have participants share any highlights from their discussion with the large group.

# MINDSETS

A set of beliefs or a way of thinking that determines one's behaviour, outlook and mental attitude.

What we believe is possible and desirable are crucial elements in the successful implementation of a strategy.

(Gillaspie, 2015)



## Speaking Notes:

- Understanding people's mindsets gives us insight into the culture of a unit, area, or team.
- Mindsets help us to understand what facilitates change and what stands in the way.
- The status quo is preserved by prevailing and existing mindsets. To shift the status quo, we know that we need to shift existing mindsets.

---

**+** *Note that mindsets are different than behaviours. For example, believing that learning new things is important is a mindset whereas taking a course or reading up on something is a behaviour.*

# MINDSET SHIFT

FROM...	TO...
Plan and control everything	Be curious and learn as you go
Innovative thinking is a rare expertise	Everyone has valuable ideas to contribute
Authority by hierarchy	Leading through influence and relationships

## Speaking Notes:

- Let's look closer at the concept of mindsets. Here are some examples of shifts in mindsets...
- Our traditional comfort zone may include:
  - Plan and control everything
  - Innovative thinking is a rare expertise
  - Authority by hierarchy
- What if we shifted to:
  - Be curious and learn as you go
  - Everyone has valuable ideas to contribute
  - Leading through influence and relationships?

In the middle of difficulty lies opportunity. - Albert Einstein



# Optional Activity

## MINDSET SHIFT

### Purpose

To raise awareness about current mindsets and initiate movement towards new ones.

### Time

30 minutes

### Materials

- Mindset Shift worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

First on your own and then in small groups, consider:

What are the current mindsets that have helped to maintain the status quo and what mindsets do we need to work towards in order to change and make things better?

### Debrief

Have participants share any highlights from their discussion with the large group.

Use questions such as these to further the discussion:

- Were there any surprises in the current mindset as compared to the future mindset?
- How can the future mindset help you achieve your goals?
- How can you communicate the future mindset to your teams/partners/stakeholders?

# FRAMING

Framing is the process by which leaders construct, articulate, and put across their message in a powerful and compelling way in order to win people to their cause and call them to action.

(NHS, 2011)



## Speaking Notes:

- Framing is an approach to engage others in your efforts. It is a way to:
  - Pull people in
  - Connect with people's hearts and minds
  - Turn opportunity into action
  - Mobilize support
- Framing is effective when it is authentic and connects with what people see as their reality.

You can't impose anything on anyone and expect them to be committed to it. - Edgar Schein

# FRAMING

People change what they do less because they are given analysis that shifts their *thinking* than because they are shown a truth that influences their *feelings*.

(Kotte and Cohen, 2002)



## Speaking Notes:

- Put very simply, using framing to engage others means including 3 components in our communication:
  - What is the program/issue that we are addressing?
  - What could the future look like?
  - What is our call for action?



# Optional Activity

## FRAMING

### Purpose

To begin to adapt how they frame a message to connect with and engage others.

### Time

30 minutes

### Materials

- Framing worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

Divide participants into pairs or small groups.

Ask participants to consider who should be involved in the improvement work they are focusing on. Consider their perspectives and generate ideas for how you might frame your messaging to engage them in the process. Also consider the specific commitments you are looking for from them.

### Debrief

Have participants share any highlights or challenges they encountered in completing this activity.

# BUILDING AN IMPROVEMENT TEAM

In your Quality Improvement team, be sure to...

- Include multiple perspectives
- Involve patients/residents/clients and families
- Engage a project sponsor



## Speaking Notes:

- Improvement project teams should be built strategically, and include people with different skill sets, knowledge areas, and perspectives. Assembling a good team for an improvement project promotes success and sustainability.
- Be sure to involve content experts, local leaders, and those whose work will be affected by the improvement project – they will know a lot about what changes to try and what might work best in their context.
- Patients have a unique perspective and their insights are also valuable to an improvement project.
- A project sponsor has executive authority and supports the team; they can connect with other areas of the organization to provide resources and help overcome barriers.

## Optional Discussion Question:

Think about a positive experience you've had being part of a team. What were some of the factors that made this team successful? How did people behave in the team?

 Refer to organizational policies, procedures, or resources for patient involvement.

The single biggest problem in communication is the illusion that it has taken place. - George Bernard Shaw



# Optional Activity

## TEAM PLANNING

### Purpose

To establish a common understanding of how team members want to work together.

### Time

30 minutes

### Materials

- Flipchart paper
- Felt pens

### Preparation

Set up flip chart so everyone can see. Consider having a volunteer scribe the discussion.

### Instructions

Pose the questions below to the group and facilitate discussion. Record responses as they are decided upon.

- If we're to take on an improvement project, what are the different activities that team members will need to be involved in?
- Do we have people that can be responsible for each of these quality improvement activities?
- Example improvement team activities:
  - Who will...
  - attend regular meetings or huddles?
  - track results of changes?
  - recruit other stakeholders as needed?
  - facilitate QI activities?
  - collect data?
  - share progress with sponsors, staff, stakeholders?

### Resources

For groups planning to work on an improvement project, team members and their responsibilities can be captured in the project charter. 

### Notes

Team members may change as the project progresses, and having ground rules and processes to guide your work together can help to maintain progress as team membership changes. During times when teams are struggling, this can also be a good reminder for people to reflect on their interactions with others.



# Optional Activity

## ENGAGING STAKEHOLDERS

### Purpose

To consider who to engage when it comes to initiating an improvement project and determine a strategy to engage these stakeholders.

### Time

30 minutes

### Materials

- Engaging Stakeholders worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

Think about who would be important to engage in your improvement work and who can help ensure it achieves success. Using the Engaging Stakeholders worksheet, identify potential stakeholders and determine how you can approach each of them.

### Debrief

After completing the sheet individually, participants can pair up and discuss their thinking about stakeholder engagement.

Have participants share any highlights from their discussion with the large group.

# KEEP IN MIND...

- Quality in health care is multi-dimensional
- There are some fundamental principles to guide quality improvement
- Understanding culture and complexity is key to doing improvement work
- Assembling a good team for an improvement project promotes success and sustainability



## Speaking Notes:

- There are multiple dimensions of quality in health care and efforts for improvement may address only some of them, or address several at once.
- All improvement work has some core principles, regardless of the specific methods used.
- Attending to culture and complexity can help promote success in efforts to achieve quality improvement.
- Being purposeful as you assemble your team can help your project to be more successful in achieving its aim and having a lasting effect.

## Optional Discussion Questions:

What stood out for you today? What do you want to remember about this session?

# TIME TO REFLECT

## Can you...

- Define quality and quality improvement in health care?
- Appreciate the importance of attending to complexity and culture in improvement initiatives?
- Engage stakeholders and work as a team to achieve improvement?



### Speaking Notes:

- Overall, this module is meant to introduce what quality improvement is and how it works, as well as how it fits in the healthcare setting.
- It is intended to start your thinking about what it takes to successfully improve and to begin to take some initial steps towards setting up an improvement project.

**+** *Use any remaining time for questions and discussion.*

*Also, be sure to get feedback from your participants on the session. There is an evaluation form that you can use in the appendix. *

# Module References

**Balestracci, Davis.** *Data sanity: A quantum leap to unprecedented results.* Medical Group Management Association, 2009.

**BCPSQC,** *Health Quality Matrix,* 2008. <http://bit.ly/1H4N5G5>

**Kotter, John P., and Dan S. Cohen.** *The heart of change: Real-life stories of how people change their organizations.* Harvard Business Press, 2002.

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**Langley, Gerald J., et al.** *The improvement guide: a practical approach to enhancing organizational performance.* John Wiley & Sons, 2009.

**Zimmerman, Brenda, Curt Lindberg, and Paul E. Plsek.** *Edgware: Insights from complexity science for health care leaders.* United States of America:York University, 1998, 2013.





# THE PROCESS FOR IMPROVEMENT

This module describes the improvement process using the Model for Improvement. It also covers what is needed to get going with an improvement project, including initiating a project charter.

## LEARNING OBJECTIVES

**By the end of this module, participants will be able to...**

- Explain the Model for Improvement and apply it to an improvement project
- Initiate an improvement project and use a project charter

## THIS MODULE CONTAINS:



**Twenty-two slides with speaking notes and questions for group discussion (45-60 minutes) including:**

2 collections of custom content\*

- Problem Statements
- Aim Statements

*\*You may choose the most relevant example from the collection provided, or create your own.*



**One optional learning activity:**

- Introduction to an Improvement Charter - worksheet (30 minutes)



**Remember to make this module your own! Add in examples and details that will bring the ideas to life for the learners.**

# + THE PROCESS FOR IMPROVEMENT



## By the end of this module, you will be able to...

- Explain the Model for Improvement and apply it to an improvement project
- Initiate an improvement project and use a project charter

### Speaking Notes:

- This module describes the steps we can take to introduce a change and work towards improvement.
- It also introduces a project charter, which is a document that guides the course of a project.

# FORMAL IMPROVEMENT METHODS

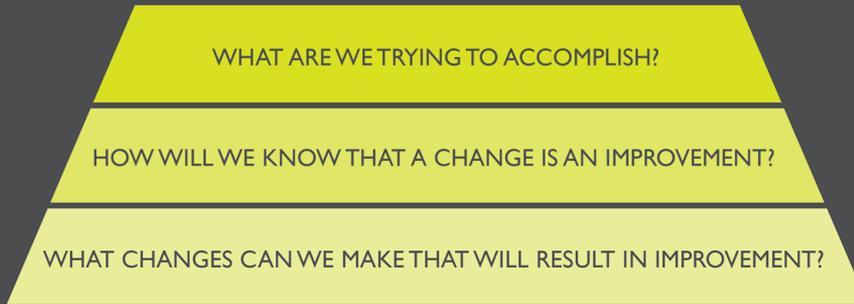
There are different QI methods and frameworks but they have common features:

- Clear statement about purpose of change
- Testing changes in incremental steps
- Using data to learn about progress
- Using a team – including those who do the work – to develop and test changes

## Speaking Notes:

- There are different frameworks such as the Model for Improvement or Lean, but most quality improvement methods will have these same core components.
- They have the same purpose: improvement to processes and outcomes.
- They test changes using small-scale tests to learn about changes and how they can work in a specific context.
- Data is collected and analyzed along the way to understand the problem and understand progress.
- Projects are not done by only one person or one department, they use a team approach.

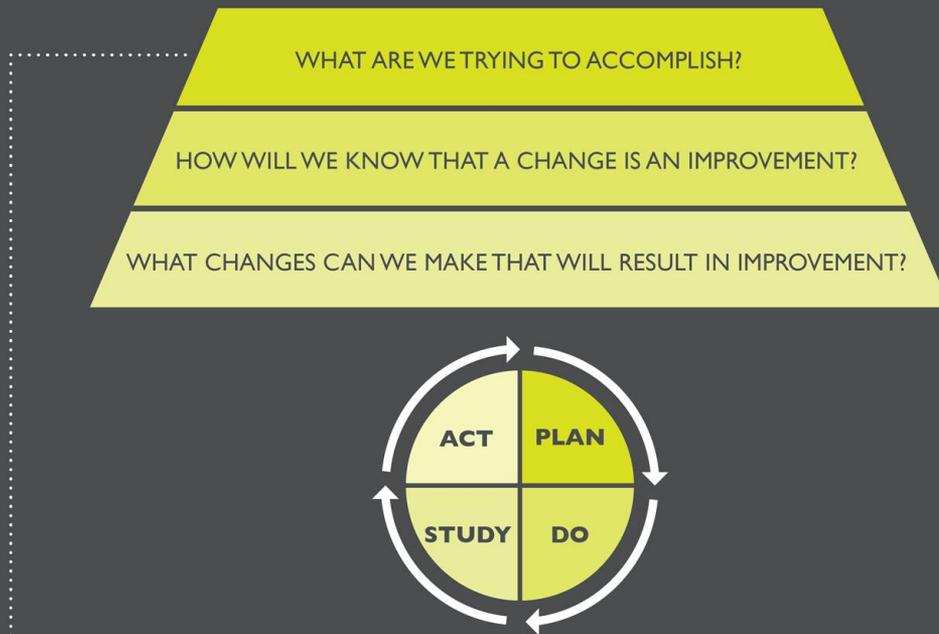
# MODEL FOR IMPROVEMENT



## Speaking Notes:

- This is the Model for Improvement. It is simple and intuitive.
- The model has three questions:
  - What are we trying to accomplish?
  - How will we know a change is an improvement?
  - What changes can we make that will result in an improvement?
- The Model for Improvement is a structured approach, based on the scientific method, and it helps you learn how to improve through repeated testing.

# MODEL FOR IMPROVEMENT



+ Describe the problem and build an aim statement.

## Speaking Notes:

- The first question in the Model for Improvement is “what are we trying to accomplish?”
- It is about defining the purpose of the project and, more specifically, defining what improvement you want to achieve.
- The answer to this question becomes the aim statement.

# WHAT ARE WE TRYING TO ACCOMPLISH?

## Problem Statement & Aim Statement

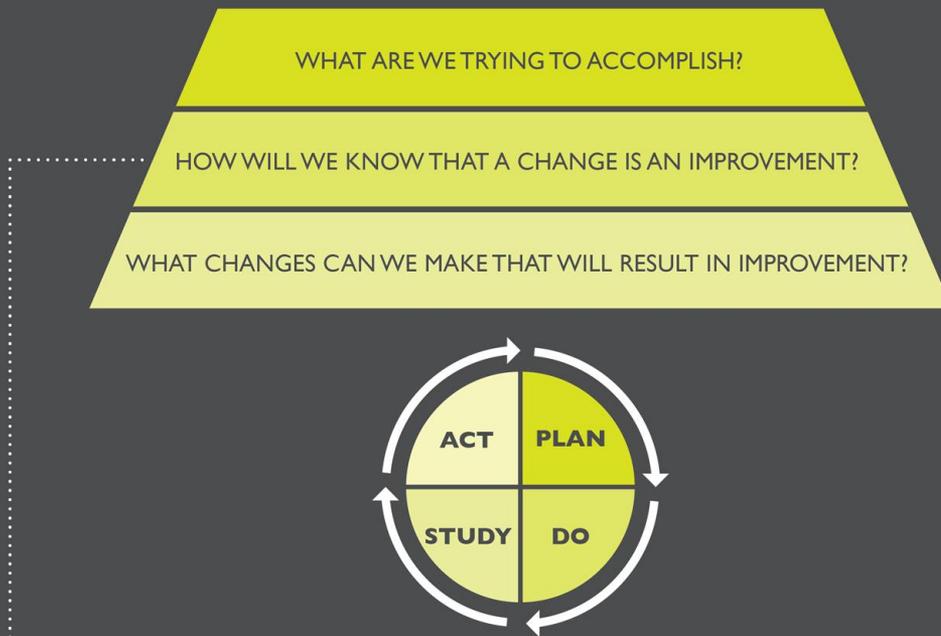
Outlines the general problem and purpose of your project.



### Speaking Notes:

- It can be tempting to jump to solutions, but try to think about the reasons for the problem (the why), and what success will look like before jumping into solutions and details (the how).
- A problem statement helps you focus on what the underlying issues are.
- An aim statement helps you determine what you really want to achieve and what to focus your improvement efforts on.

# MODEL FOR IMPROVEMENT



+ *Determine what to measure and how to collect this data.*

## Speaking Notes:

- The second question in the Model for Improvement is “how will we know a change is an improvement?”
- This is where you specify what you will measure, and what data you need to measure it, in order to know whether or not you have actually made an improvement.

# HOW WILL WE KNOW A CHANGE IS AN IMPROVEMENT?

## Measures

Not all changes are going to lead to improvement. You need data to inform the team whether the changes are working.



### Speaking Notes:

- Measures should be based on achieving your aim.
- Your measures monitor whether the changes you make are actually improving things or not and will help you gauge how close you are to achieving what you set out to accomplish.
- You will need a few different measures to tell the whole story.
- It is important to establish measures at the beginning of your project, but they may change over the course of your project.

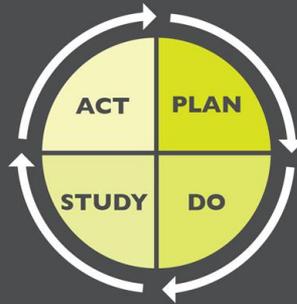
 *Defining measures and developing a plan for data collection is covered in more detail in the Measuring and Using Data module.*

# MODEL FOR IMPROVEMENT

WHAT ARE WE TRYING TO ACCOMPLISH?

HOW WILL WE KNOW THAT A CHANGE IS AN IMPROVEMENT?

WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?



+ Choose change ideas to test using PDSA cycle.

## Speaking Notes:

- The third question in the Model for Improvement is “what changes can we make that will result in improvement?”
- This is where you generate ideas for how to make things better.

# WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?

## Ideas for change

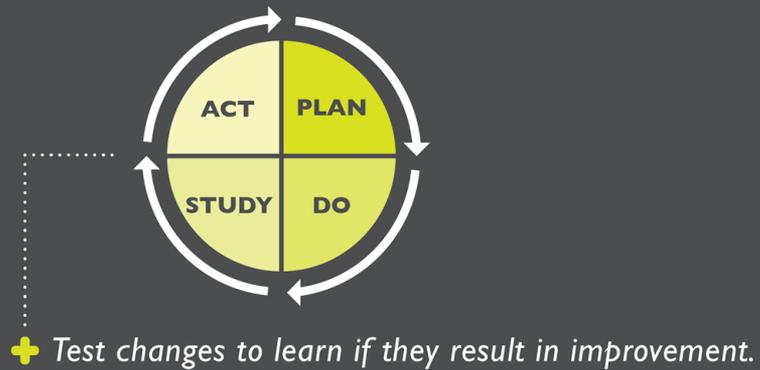
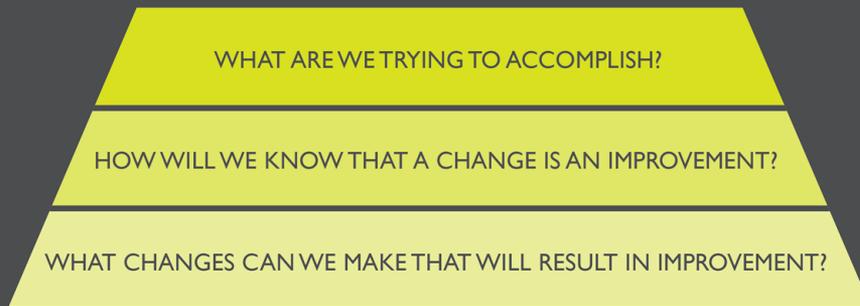
What are the team's initial ideas for how to achieve the aim?

### Speaking Notes:

- Think about ideas for change the team may already have in mind.
- Creative thinking can also be helpful in generating new ideas for achieving improvement.
- Often achieving your aim requires multiple ideas for change, and these ideas may change throughout the course of the project.
- It is also helpful to consider any specific requirements or constraints that will influence the changes you can make.

 *Generating ideas for change is covered in more detail in the From Ideas to Implementation module.*

# MODEL FOR IMPROVEMENT



## Speaking Notes:

- Ideas will be tested using PDSA cycles: Plan – Do – Study – Act.
- This is about testing your idea in a small way.
- By using a series of testing cycles, you can learn what will be most effective in making improvements before you implement on a full scale.
- Involving others in PDSA cycles to try out the change before it is implemented can help reduce barriers to change.

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+ *Testing ideas for change is covered in more detail in the From Ideas to Implementation module.*

# PDSA CYCLES

PLAN

Determine what you want to learn and how you can learn it

DO

Test and measure to find out if your prediction was right

STUDY

Compare your prediction to the actual result

ACT

Decide what to do next

*(Langley et al., 2009)*

## Speaking Notes:

- PDSA cycles are deceptively simple. It is important to follow all the steps to provide the most value.
- Going through each section before the test helps keep the tests small and ensures no steps are missed.
- In a PDSA cycle, the “planning” stage is different from the overall planning for an improvement project. It is focused on the idea to test and is very quick. Be careful not to get hung up on planning, just try something – it may fail, and you can learn from that for your next PDSA cycle.

 *The Paper Airplane Competition optional activity in the From Ideas to Implementation module could be used here to reinforce learning on PDSA cycles.*

# CHARTER

A documented plan to guide the work of the team.

Charters are useful for projects because they:

- Clarify purpose
- Limit the tendency to get off track
- Outline roles of various team members
- Show where to start
- Determine when project is finished

## Speaking Notes:

- A charter outlines all of the elements of the improvement process.
- There are 4 key elements:
  1. Overall Purpose
  2. Expected Outcomes
  3. Initial Ideas for Change
  4. Team Members' Roles and Responsibilities
- A charter should be drafted with your team at the beginning of the project. Spending this time up front will likely save a lot of time later on, but it can also be revised as necessary throughout the project.

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 *There is a template for an improvement charter available in the worksheets section.* 

# PROBLEM STATEMENT

A brief description of the issue or problem that a quality improvement team is seeking to address.



## Speaking Notes:

- The problem statement specifies what is currently not working well and what the effect is on quality. What made you realize that something needs to be improved?
- Before jumping to solutions, your team should be able to describe the problem in terms of quality.
- In defining your problem, consider the dimensions of quality, and describe how care for the patient is not currently meeting one or more of these dimensions.

# PROBLEM STATEMENT

“At the *Get Better Health Clinic*, there has been an increase in complaints from clients this year. The majority of these complaints are about waiting for an appointment at the clinic. The clinic manager calculated that the average wait time for an appointment is 135 days.”

Speaking Notes:

- Here is an example of a problem statement.

Optional Discussion Question:

What is the problem here in terms of quality?

# FOR EXAMPLE...

## Problem Statement:

### Speaking Notes:

- Here is another example of a problem statement.  
*(Copy an example from the next page into this slide, or create your own example.)*

### Optional Discussion Question:

What dimensions of quality does this example relate to?

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-  *If participants are planning to take on an improvement project you may want to take some time to assist them to draft a problem statement for their project.*

# Custom Examples

Choose an example from the list below, or create your own example, and add it into the Problem Statement slide.

## PROBLEM STATEMENTS

- **Mountain View Care Centre** is a long term care home with 300 residents. In the last 6 months, the number of falls in the north wing has increased by over 30%.
- The **Coast View Clinic** has been receiving an increased number of complaints about waiting times from patients. A quick survey showed that patients were waiting an average of 55 minutes for an appointment, with the range being 15-100 minutes.
- At **Cedar View Hospital**, the wound care team has shown that in the past 6 months, there has been a 30% increase in pressure ulcers on the 5-South Medical Unit.
- The nursing staff of the **Park View Emergency Department** have expressed some frustration at the recent reorganization of the supply rooms. They report that it is taking them too long to find the supplies they need, and that they often have to go into several different areas to get everything they need for common procedures.
- Provincial data shows that the **Ocean View Hospital** NSQIP surgical site infection rate for colorectal patients is in the 10th percentile.
- In the past few months, staff turnover at the **Valley View Mental Health Centre** has spiked. During exit interviews, a number of people have made reference to code white situations they were involved in. Data from the last year shows there has been a steadily increasing incidence of code white events from 5 per month to 15 per month.

Or create your own:

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# AIM STATEMENT

What are we trying to accomplish?

There are 4 parts to a precise aim statement:

- What will improve?
- Where?
- By how much?
- By when?

## Speaking Notes:

- After working out exactly what the problem is, the next step is to write out an aim statement.
- The aim statement specifies what will improve, where, by how much, and by when.
- How you are going to achieve your aim is not included in a good aim statement because this can limit all the ways that you can get the job done.
- The target of an aim statement should be ambitious so people are stretched or motivated, but still realistic and achievable.
- A good aim statement can also help avoid “scope creep” because it not only tells us what we are working on, but also helps determine what is not in the scope of the project.

# AIM STATEMENT

“The wait time for the *Get Better Health Clinic* will decrease from an average of 135 days to less than 60 days by the end of this year.”

- What will improve?
- Where?
- By when?
- By how much?

Speaking Notes:

- An aim statement needs to be specific, and should include a target and a time frame.
- Here is an example.

Optional Discussion Question:

Can you identify the 4 components?

Anticipated Responses:

- What will improve: # of days wait for an appointment
- Where: The Get Better Clinic
- By when: By the end of the year (ie: December 31, 20\_\_)
- By how much: 75 days or more

# FOR EXAMPLE...

## Aim Statement:

What will improve? Where? By when? By how much?

### Speaking Notes:

- Here is an example of an aim statement.  
*(Copy an example from the next page into this slide, or create your own example.)*
- Can you identify the 4 components?

---

 *If participants are planning to take on an improvement project you may want to take some time to assist them to draft an aim statement for their project.*

# Custom Examples

Choose an example from the list below, or create your own example, and add it into the Aim Statement slide.

## AIM STATEMENTS

- We will decrease the number of falls for all residents on **Mountain View Care Centre's** North wing from an average of 10 per month to 2 per month by December 31.
- We will reduce waiting time to see a physician at **Coast View Clinic** to less than 30 minutes by May 31.
- On 7-West Medical Unit at **Cedar View Hospital**, the number of pressure ulcers per patient day will decrease by 30% by September 30.
- At **Park View Emergency Department**, we will reduce the time that nurses spend searching for supplies by 50% by December 31.
- To increase the appropriate timing of prophylactic antibiotics in colorectal cases in the **Ocean View Hospital** operating room to 95% by June 30.
- By March 31, the Schizophrenia Unit at **Valley View Mental Health Centre** will have reduced the number of violent incidents on the unit from an average of 15 to 5 or fewer per month.

Or create your own:

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# SCOPE & BOUNDARIES

- Include details to keep the team focused
- Include any constraints that need to be adhered to
- Be creative about resources you may have available

## Speaking Notes:

- The scope and boundaries of the project clarify what the project will do and what it won't do.
- Specifying existing strategies, related projects, patient populations, scale, etc. can help keep the project focused.
- It is important to specify if there are any constraints, such as policies or guidelines that need to be followed.
- Look for additional resources to support this work such as student projects or internships.
- Scope and boundaries can change as a project progresses. Your project team can decide together if the scope needs to change, and then redefine this in the project charter.

 *If participants are part of a specific project team, take some time for the group to draft the project scope and boundaries for their project.*



# Optional Activity

## INTRODUCTION TO AN IMPROVEMENT CHARTER

### Purpose

For project team(s) to initiate a charter to guide their project work.

### Time

30 – 60 minutes

### Materials

Improvement Charter template 

### Preparation

Print a copy of the charter template for each participant.

### Instructions

Consider the focus of the work that your team would like to do. As a team, begin to define this work by completing the sections of the charter:

- Project name, sponsor, team leader and members
- Problem Statement - What is the gap in quality this work is addressing?
- Aim Statement - What will improve? By how much? By when? Where?
- Scope and Boundaries - What will the project include?

Note that for the measures, change ideas and PDSA cycles, EPIQ modules Measuring and Using Data and From Ideas to Implementation will help inform these sections.

Participants can also complete other sections of the charter, ie: team, key dates, and plan to include the voice of the client.

### Debrief

What was it like working through the charter? Any challenges? How did you navigate these? How will this document help you in achieving improvement?

### Notes

- This activity can be used for a large project involving everyone, for small groups, or even a personal improvement project.
- Other project charter templates may be substituted in.
- The process of completing a charter brings awareness to everyone involved and confirms their commitment to participate and support the project. The dialogue in this process is as important as the charter itself.

# KEEP IN MIND...

- An aim statement provides a clear understanding of what we are trying to improve
- Collecting data will tell us if the ideas we are testing are making an improvement
- PDSA cycles guide action and provide structure for testing ideas



## Speaking Notes:

- There are different frameworks to guide improvement efforts, such as the Model for Improvement, but most quality improvement methods will have the same core components.
- Having a clear aim, collecting data, and using small scale tests are all important to achieving improvement.

## Optional Discussion Questions:

What stood out for you today? What do you want to remember about this session?

# TIME TO REFLECT

## Can you...

- Explain the Model for Improvement and apply it to an improvement project?
- Initiate an improvement project and use a project charter?

### Speaking Notes:

- Overall, this module is meant to demonstrate how important it is to think about the purpose of an improvement project and to use formal improvement methods. All of these elements should be documented to help keep the work on track.

 Use any remaining time for questions and discussion.

Also, be sure to get feedback from your participants on the session. There is an evaluation form that you can use in the appendix. 

# Module References

Langley, Gerald J., et al. *The improvement guide: a practical approach to enhancing organizational performance*. John Wiley & Sons, 2009.



# + MEASURING AND USING DATA





# MEASURING AND USING DATA

This module focuses on using data and measurement approaches in improvement. It emphasizes the importance of collecting data over time and covers how to choose measures for a project and develop a plan to collect data.

## LEARNING OBJECTIVES

**By the end of this module, participants will be able to...**

- Explain the importance of collecting data over time
- Define key measures
- Describe strategies to collect and display data

## THIS MODULE CONTAINS:



**Nineteen slides with speaking notes and questions for group discussion (45-60 minutes) including:**

2 collections of custom content\*

- Measures from Aim Statements
- Types of Measures

*\*You may choose the most relevant example from the collection provided, or create your own.*



**Three optional learning activities:**

- Developing a Measurement Plan - worksheet (30 minutes)
- Using a Safety Cross to Display Data - worksheet (30 minutes)
- Creating Run Charts - worksheet (30 minutes)



**Remember to make this module your own! Add in examples and details that will bring the ideas to life for the learners.**

# + MEASURING AND USING DATA



## By the end of this module, you will be able to...

- Explain the importance of collecting data over time
- Define key measures
- Describe strategies to collect and display data

### Speaking Notes:

- By the end of the module, you will have learned the importance of collecting data over time - from the beginning of the project and all the way through.
- This module is specific to project work - you will learn how to use an aim statement to help understand what to measure.

# MEASUREMENT

Tells us:

- Where we started at the beginning of the project
- How we change over time
- When we have reached our target

Speaking Notes:

- One of the major foundations of improvement work is the idea that data collection is done over time.
- The purpose of data in improvement is to know your current performance and how close you are getting to your aim.
- It is very important to start collecting data for your measures early on in your project.

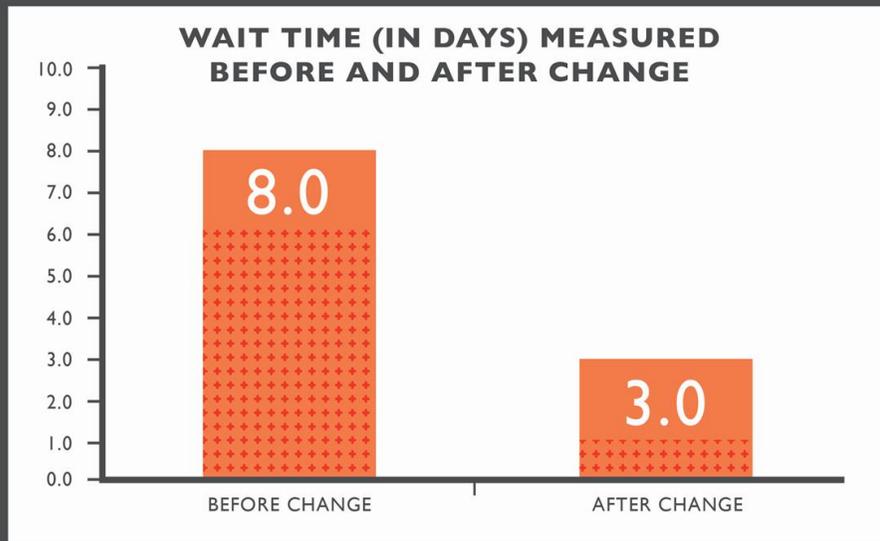
# COLLECT DATA OVER TIME

Collecting data over time shows whether what we are trying to improve is getting better.

## Speaking Notes:

- Start collecting data from the start of your project and measure frequently.
- This helps you to know where you started, where you are currently, and how far you have to go to reach your aim. Staying attentive to what you are learning through PDSA cycles along the way will help guide your improvement efforts.
- The next slides demonstrate why data over time gives us more accurate information than data measured only before and after a change is implemented.

# WHY NOT BEFORE AND AFTER?



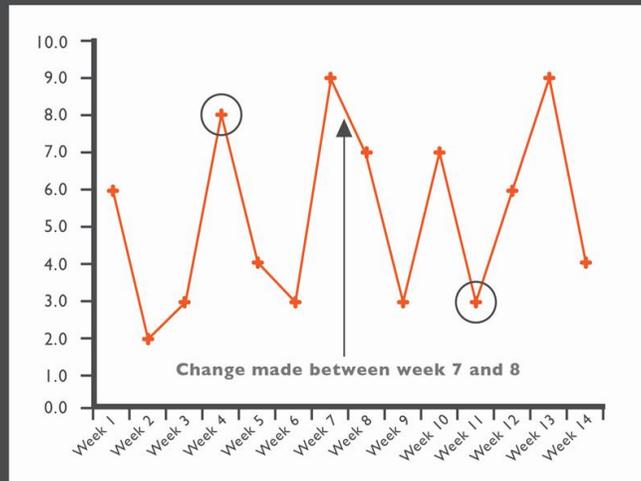
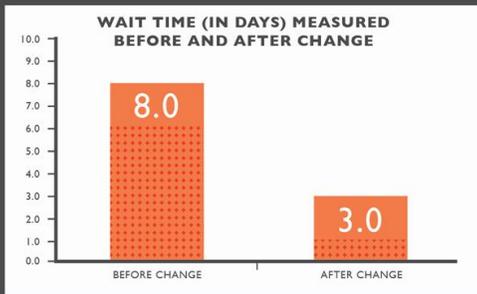
**PRE: 8 days wait time    POST: 3 days wait time**

*(Adapted from Provost and Murray, 2011)*

## Speaking Notes:

- Because quality improvement is about making changes, people are sometimes tempted to do pre-post analysis, measuring before a change and then after a change.
- In this example, there was a change that was meant to decrease wait time.
- The team measured wait time before the change and it was 8 days and then they measured it after the change and it was 3 days.
- This looks good and the team would conclude that their change was successful.
- But there is a problem with this approach...

# SCENARIO I

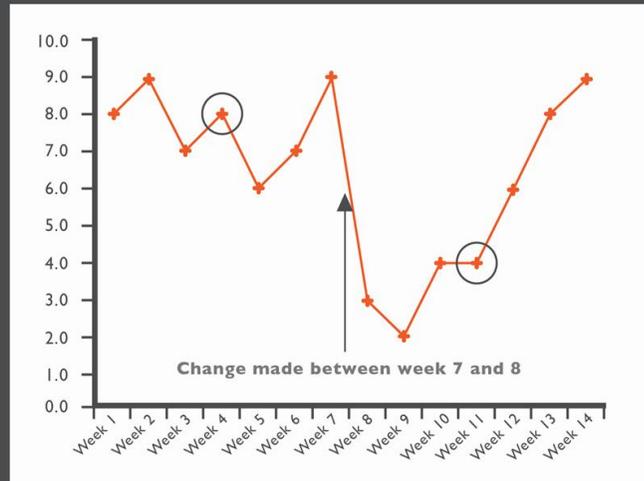
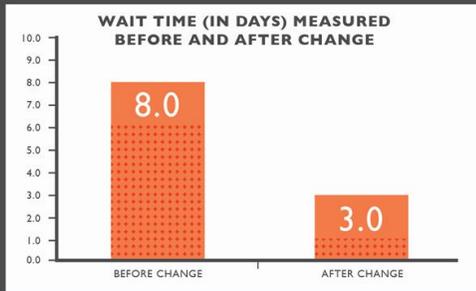


(Adapted from Provost and Murray, 2011)

## Speaking Notes:

- What does this slide tell us?
- There is no obvious improvement after the change was made, just lots of variation from week to week.
- If we just measured on Week 4 and Week 11 like we did with the pre and post, our bar chart would lead us to think the wait time had improved.

# SCENARIO 2

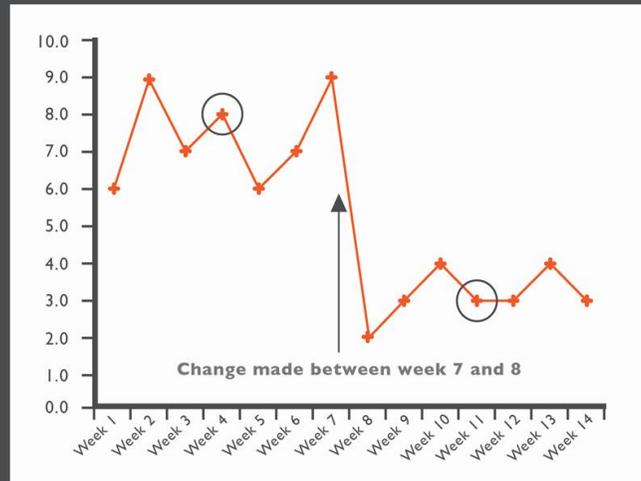
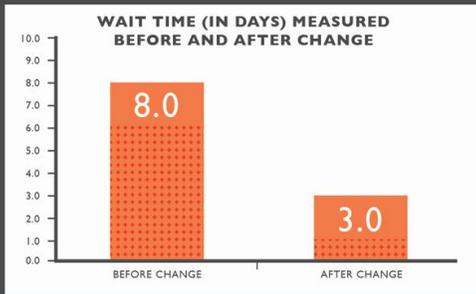


(Adapted from Provost and Murray, 2011)

## Speaking Notes:

- What does this slide tell us? Does it look like the change was successful?
- It does actually, but it was only temporary. Again, we don't see that on the bar chart.
- All of these scenarios have the exact same bar chart, but when you collect more data and it gets displayed every week, the data tells a very different story.

# SCENARIO 3



(Adapted from Provost and Murray, 2011)

## Speaking Notes:

- From this simple example, we can see the importance of collecting data over time.
- We need to see data over time to analyze the fluctuation or variation. There will always be some up and down, and we need to determine what that variation means:
  - Is it just random fluctuation and therefore not really showing anything?
  - Is it actually evidence of improvement? Is the data going up (or down) in a way that it is not random?
  - If it is improved, does it stay at that level?
- Data over time helps us identify signs of improvement.

# TYPES OF MEASURES

## Outcome Measures:

Show if changes are leading to improvement and achieving the overall aim of the project

## Process Measures:

Show whether a specific change is having its intended effect

## Balancing Measures:

Help ensure that changes to improve one part of the system are not causing new problems in other areas

## Speaking Notes:

- The aim of a project helps determine what to measure, but you need a few different measures to tell the whole story.
- Improvement projects have three kinds of measures:
  - **Outcome:** Tell us if what we are trying to improve is really getting better.
  - **Process:** Tell us if we are consistently doing things we said we were going to do.
  - **Balancing:** Tell us if there is anything else that has changed, or is different, because of the change we introduced. Have we impacted anyone positively or negatively through the changes we are making? Consider resources, time/workload, or money.
- As a guideline, try to include between 3-8 measures per project, including at least one outcome measure and one process measure.

# CHOOSING MEASURES

The project charter will help specify the measures.  
Go back to your aim statement - what are you trying to accomplish?

- What will improve?
- By how much?
- By when?
- For whom?

## Speaking Notes:

- So if you were to change something – how will you know that change is an improvement?
- Knowing what to measure is easier when the project has a clearly defined and measurable aim statement.

Some is not a number, soon is not a time. - Don Berwick

# CHOOSING MEASURES

## AIM STATEMENT:

The wait time for the *Get Better Clinic* will decrease from an average of 135 days to less than 60 days by the end of this year.

## MEASURE: ?

## Speaking Notes:

- Based on this aim statement, what do you think would be an appropriate outcome measure?

## Anticipated Response:

- Wait time in days

# FOR EXAMPLE...

AIM STATEMENT:

MEASURE:



## Speaking Notes:

- Based on this aim statement, what do you think would be an appropriate outcome measure?  
*(Copy an example from the next page into this slide, or create your own example.)*

 *If participants are part of a specific project team, take some time for the group to draft a measure for their aim statement in their project.*

# Custom Examples

Choose an example from the list below, or create your own example, and add it into the previous Measures slide.

## MEASURES FROM AIM STATEMENTS

AIM STATEMENT	POTENTIAL MEASURE
We will decrease the number of falls for all residents on <b>Mountain View Care Centre's</b> North wing from an average of 10 per month to 2 per month by December 31.	Number of falls
We will reduce waiting time to see a physician at <b>Coast View Clinic</b> to less than 30 minutes by May 31.	Minutes to see physician
On 7-West Medical Unit at <b>Cedar View Hospital</b> , the number of pressure ulcers per patient day will decrease by 30% by September 30.	Number of ulcers per patient day
At <b>Park View Emergency Department</b> , we will reduce the time that nurses spend searching for supplies by 50% by December 31.	Time spent searching
To increase the appropriate timing of prophylactic antibiotics in colorectal cases in the <b>Ocean View Hospital</b> operating room to 95% by June 30.	Percent of colorectal cases with timely prophylactic antibiotic administration
By March 31, the Schizophrenia Unit at <b>Valley View Mental Health Centre</b> will have reduced the number of violent incidents on the unit from an average of 15 to 5 or fewer per month.	Number of violent incidents

Or create your own: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# CHOOSING MEASURES

## AIM STATEMENT:

The wait time for the *Get Better Clinic* will decrease from an average of 135 days to less than 60 days by the end of this year.

Outcome Measure: ?

Process Measure: ?

Balancing Measure: ?

## Speaking Notes:

- Based on this example aim statement, what do you think the measures in this project could be?

## Anticipated Response:

- **Outcome Measure:** Number of days until appointment
- **Process Measure:** Number of cancelled appointments filled from cancellation call list
- **Balancing Measure:** Clinician satisfaction score

# FOR EXAMPLE...

## AIM STATEMENT:

Outcome Measure: ?

Process Measure: ?

Balancing Measure: ?



## Speaking Notes:

- Based on this example aim statement, what do you think the measures in this project could be?  
(Copy an example from the next page into this slide, or create your own example.)

- ✚ If participants are part of a specific project team, take some time for the group to draft measures for their project.

# Custom Examples

Choose an example from the list below, or create your own example, and add it into the previous Types of Measures slide.

## TYPES OF MEASURES

	POTENTIAL MEASURE	PROCESS MEASURE	BALANCING MEASURE
Mountain View Care Centre	Number of falls	Number of residents who have had a mobility assessment	Number of restraints being used
Coast View Clinic	Minutes to see physician	Minutes to clean and prepare appointment rooms between appointments	Clinic staff satisfaction score
Cedar View Hospital	Number of pressure ulcers per patient day	Percent of patients with completed skin assessment	Time staff spend documenting skin assessments
Park View Emergency Department	Time spent searching	Number of supplies out of stock	Time ward aides spend stocking and organizing supply rooms
Ocean View Hospital	Percent of colorectal cases with timely prophylactic antibiotic administration	Percent of colorectal cases in which surgical checklist was completed	Cost of antibiotics per month
Valley View Mental Health Centre	Number of violent incidents	Percent of patients with completed behavioural assessments	<ul style="list-style-type: none"> <li>• Number of patients in physical restraints</li> <li>• Number of patients on chemical restraints</li> </ul>

Or create your own: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# DATA COLLECTION

- Start right away
- Small, frequent measures
- Integrate into workload
- Timely

## Speaking Notes:

- You need to know where you are starting from in order to know when you start to see improvement. Start collecting data right away and consider getting baseline data from previous months or years.
- Often you don't need to measure everything. You can use sampling to lessen effort and the sample size will build over time.
- Try to make data collection as easy as possible. Minimize the amount of extra effort required.
- Collect data as close to real time as possible to learn about the current performance.

# DISPLAYING YOUR DATA

- Data shows where you are starting from and how close you are to reaching your aim
- Data helps you:
  - Know how you're doing
  - Learn what is and isn't working
  - See the impact of changes
  - Share your progress
- Start displaying data as soon as you have it

## Speaking Notes:

- Data can help you determine how well you are doing and what you will have to improve.
- You can use data as a communication tool, both within your improvement team and with external stakeholders, so everyone knows how things are going.



# Optional Activity

## SAFETY CROSS

### Purpose

For participants to use a safety cross to track improvement and display data.

### Time

30 minutes

### Materials

- Safety Cross worksheet and Safety Cross Case Study worksheet 
- Red and green felts

### Preparation

Print a copy of each worksheet for each participant.

### Instructions

Read the description on the Safety Cross Case Study and fill in the Safety Cross. Colour the square for each day of the month according to whether they met their goal or not. Use green for days that they met or exceeded their goal and red for days they did not.

### Debrief

Discuss the features of viewing data in a Safety Cross format. Discuss any other examples from your area of work where a Safety Cross may be useful to track and display data about improvement.

### Notes

You may want to demonstrate this on a flip chart or use a projector and complete an electronic version as a team.



# Optional Activity

## RUN CHARTS

### Purpose

For participants to create simple run charts to track and display data over time.

### Time

30 minutes

### Materials

Run Chart worksheet(s) and Run Chart Case Study worksheet 

### Preparation

Print a copy of each worksheet for each participant. Print extra Run Chart worksheets, if necessary.

### Instructions

Using the case study, plot the data points on the run chart template(s).

Follow up instructions: There are rules for a formal analysis of a run chart that are based on the median. Add in a straight line across the chart to represent the median.

Note: Analyzing run charts is beyond the scope of EPIQ. If you are interested to learn more about this analysis, consult the resources below or contact a Quality Improvement leader in your organization, or check out the resources below.

### Debrief

Discuss the benefits of using a run chart, such as it is eye-catching, efficient and quick to create, and easy to understand.

### Resources

- IHI Run Chart Tool <http://bit.ly/1MhWTeD>
- NHS Scotland, Quality Improvement Hub, Run Chart <http://bit.ly/1H4Nok3>

### Notes

You may want to demonstrate this on a flip chart or use a projector to complete an electronic version as a team.

# STEPS TO BUILDING A MEASUREMENT PLAN

- Define what you are going to measure.
- Determine when you are going to measure and what your sample will be.
- Determine how you are going to collect data.
- Determine how to display and analyze data.
- Disseminate information.

## Speaking Notes:

- There needs to be enough detail so everyone has the same understanding of what is being measured.
- Consider different types of details, such as:
  - What time frame?
  - Which patients?
  - What diagnosis?
  - What constitutes “met the guideline”?
  - Are you going to sample or include all patients/charts/staff etc.?
  - Who is going to collect, who is going to analyze?
  - Do you need a data collection form or some sort of audit tool?
- Your data does not need to be comparable to other organizations. It needs to make sense to you and your team.
- Don’t let data collection stall your project. Start collecting data at the outset; you can always change your data collection plan later on if needed.



# Optional Activity

## MEASUREMENT PLAN

### Purpose

For project team(s) to determine what they will measure and how they will collect data for these measures.

### Time

30 minutes

### Materials

- Measurement Plan worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

Consider the focus of the work that your team would like to do. As a team, begin to define the measures you need to include and how you plan to collect data for these measures.

### Debrief

Discuss any challenges participants encountered in doing this activity. Review the benefits of having a plan for collecting measures at the outset. Discuss what participants' next steps might be.

### Notes

You may want to use a projector and complete an electronic version as a team.

# KEEP IN MIND...

- Small, frequent measures
- Timely data collection
- Integrate data collection into workload

Measurement should speed things up, not slow things down.

## Speaking Notes:

- Use sampling and collect data as close to real time as possible to learn about performance quickly and find out if changes are working.
- Try to find ways to build data collection into the work that is already happening to avoid causing additional strain on staff.
- Often, it's not necessary to measure everything, but it is important to have some key measures that will tell you if things are improving or not.

## Optional Discussion Questions:

What stood out for you today? What do you want to remember about this session?

# TIME TO REFLECT

## Can you...

- Explain the importance of collecting data over time?
- Define key measures?
- Describe strategies to collect and display data?

### Speaking Notes:

- Overall, this module is meant to demonstrate how data can help in achieving improvement. Measures should be well-defined with a clear plan for collecting and displaying data.

 Use any remaining time for questions and discussion.

Also, be sure to get feedback from your participants on the session. There is an evaluation form that you can use in the appendix. 

# Module References

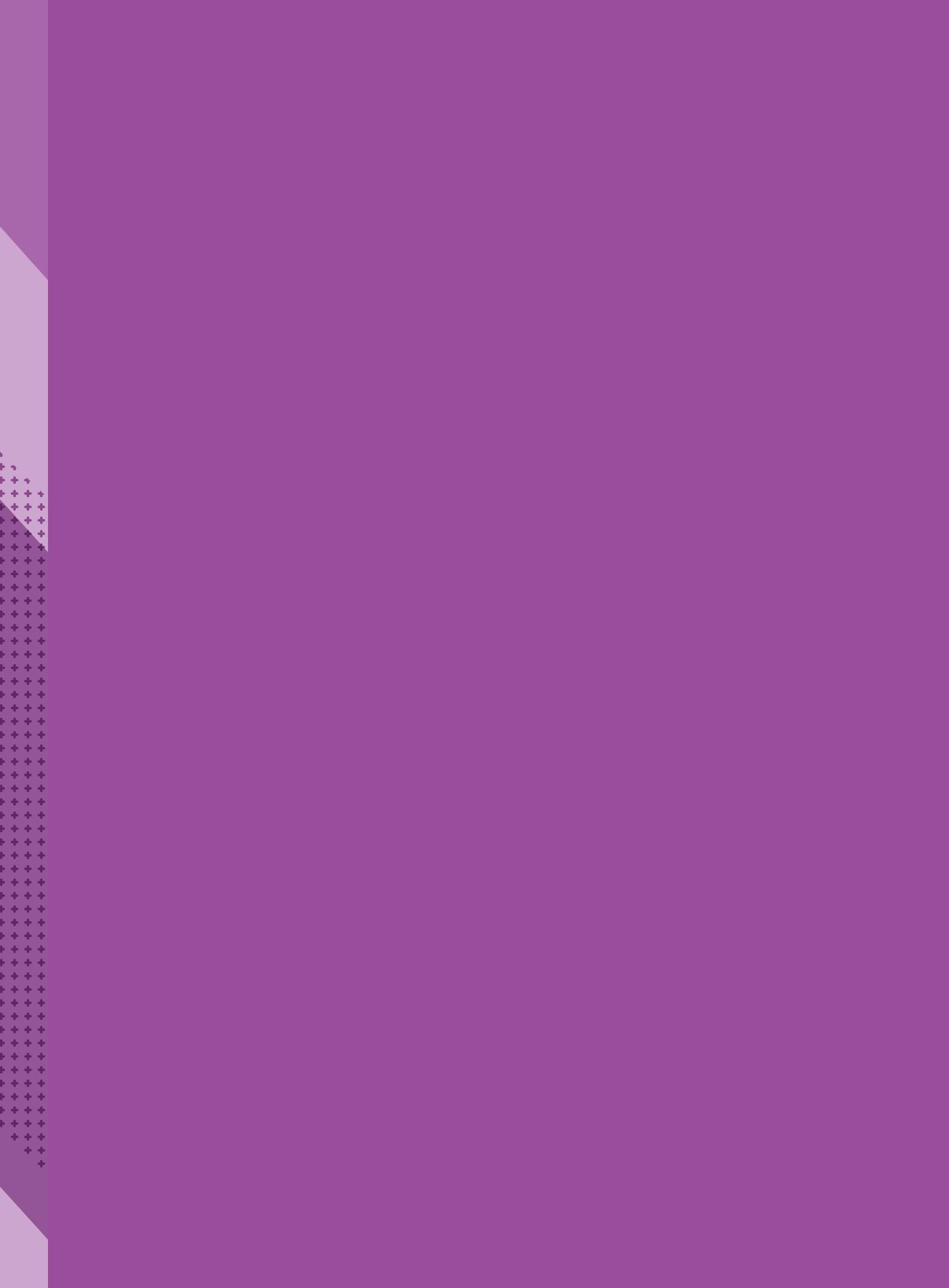
IHI (Institute for Healthcare Improvement) *Run chart tool*. <http://bit.ly/1MhWTeD>

NHS Scotland Quality Improvement Hub, *Run chart*. <http://bit.ly/1H4Nok3>

Provost, Lloyd P., and Sandra Murray. *The health care data guide: learning from data for improvement*. John Wiley & Sons, 2011.

+ FROM IDEAS  
TO IMPLEMENTATION





# FROM IDEAS TO IMPLEMENTATION

This module discusses tools and methods that may be used to generate ideas for changes that meet specific aims. It also focuses on why it is important to test changes before moving directly to the implementation phase.

## LEARNING OBJECTIVES

**By the end of this module, participants will be able to...**

- Recognize opportunities for improvement and generate creative ideas for change
- Develop and test an idea for change using PDSA cycles
- Consider ways to sustain and spread successful changes

## THIS MODULE CONTAINS:



**Twenty-two slides with speaking notes and questions for group discussion. (45-60 minutes)**



**Six optional learning activities:**

- Ideas for Change from Change Concepts - worksheet (30 minutes)
- Mapping a Process (30 minutes)
- TRIZ – Theory of Inventive Problem-Solving (30 minutes)
- 25 Gets You 10 (15 minutes)
- Six Thinking Hats - worksheet (30 minutes)
- Paper Airplane Competition - worksheet (30 minutes)
- Planning for Sustainability - worksheet (30 minutes)



*Remember to make this module your own! Add in examples and details that will bring the ideas to life for the learners.*

# + FROM IDEAS TO IMPLEMENTATION



# By the end of this module, you will be able to...

- Recognize opportunities for improvement and generate creative ideas for change
- Develop and test an idea for change using PDSA cycles
- Consider ways to sustain improvement over time

## Speaking Notes:

- This module is focused on tools and methods to generate ideas for change and emphasizes the importance of testing in relatively short time frames. It also highlights some things to consider to help sustain improvement over time.

# IDEAS FOR CHANGE

- Not all changes result in improvement
- Often we need a number of different ideas to achieve our aim
- Ideas for change come from various sources

## Speaking Notes:

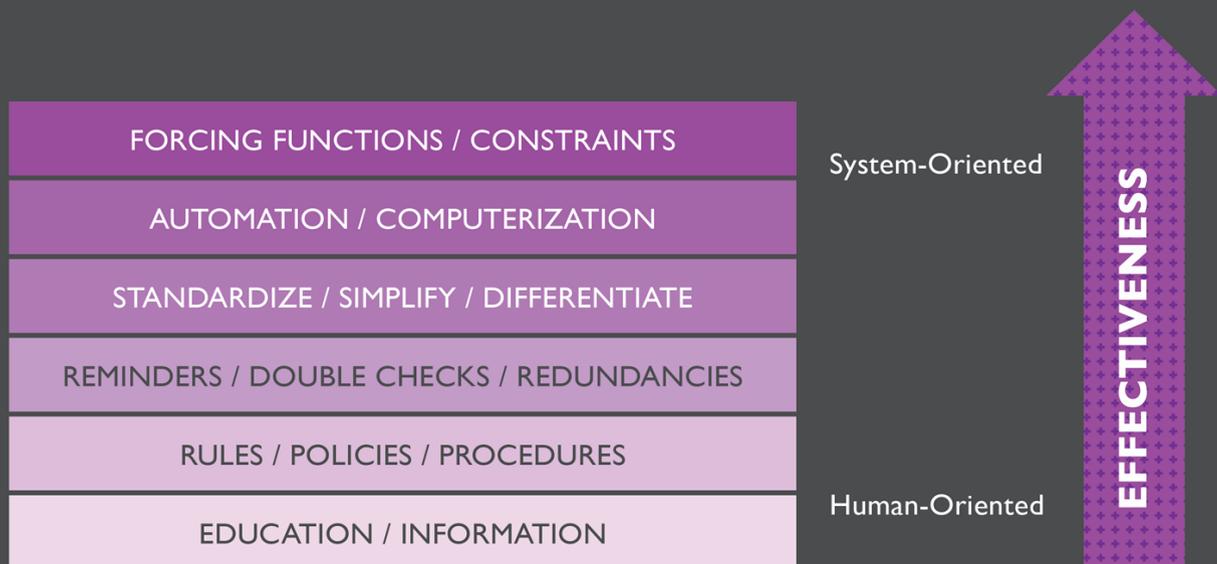
- Coming up with ideas that are different to how we usually work can be challenging.
- Even if the changes came from another organization or a best practice document, it doesn't necessarily mean they will work well in this instance.
- Typically, it takes more than one idea for change to make a difference.
- Ideas for change come from various sources, but always involve input from the organization and staff.

Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives. - William Adelbert Foster



# EFFECTIVENESS OF CHANGES

Some kinds of changes are typically more effective than others



(Institute for Safe Medication Practices, 1999)

## Speaking Notes:

- Some kinds of changes are usually more effective than others.
- The changes at the bottom are generally less effective because they depend on people changing their behaviours.
- Changes that are focused on the system, at the top, are more effective because they make it hard NOT to change.
- For example, at gas stations the pump for diesel is larger than the pump for gasoline and won't fit into the tank of gasoline-powered cars. This is a forced function that prevents people from using the wrong type of fuel in their cars.

## Optional Discussion Question:

What are some examples of things that fall into the different levels of effectiveness in your work?

# METHODS TO GENERATE CHANGE IDEAS

- Adapting Best Practices
- Change Concepts
- Mapping
- Creativity of the Team



## Speaking Notes:

- Improvement often involves doing things differently and thinking of creative solutions to old challenges.
- There are some specific methods that can help generate new ideas for changes to test.
- Don't be afraid to try an idea that was not effective previously. In different conditions, it just might work.

 *If participants are part of a specific project team, take some time for the group to generate change ideas for their project after reviewing all the methods.*

# ADAPTING BEST PRACTICES

- Research/Literature Review
- Guidelines
- Benchmark

## Speaking Notes:

- Often in health care, ideas are provided to us in the form of best practices.
- Best practices come from research literature, or top performing organizations, or established models or guidelines.
- The team still needs to identify and test how to adapt those best practices in their own setting.
- Benchmarking is learning from top performers. By connecting with areas that are having success in what you want to achieve, you can compare how things work and get ideas for things to test to improve in your area.

# CHANGE CONCEPTS

A general approach found to be useful in developing specific ideas for change that results in improvement.

## Speaking Notes:

- There are 72 general changes that successful organizations (health care and other businesses) have used to make successful and sustainable changes.
- These are general concepts, many having to do with reducing waste and improving work flow.
- Specific ideas can come from reviewing this list and then formulating ideas with more details.



# Optional Activity

## IDEAS FOR CHANGE FROM CHANGE CONCEPTS

### Purpose

To consider how change concepts can generate ideas for change to test in an improvement project.

### Time

30 minutes

### Materials

Change Concepts worksheet 

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

This activity can be done in a small or large group. Ask participants to think about the problem they are working on. Review the worksheet and find five change concepts that could be turned into a specific idea to test. From those five, brainstorm ideas and develop a plan to test your new ideas.

Alternatively, you could use the example of clinic wait times from the previous modules and consider change ideas for that.

### Debrief

Ask participants to share the ideas they came up with from their change concepts.

### Resources

A Resource Guide to Change Concepts. Pages 357-408 of Langley, Gerald J., et al. The improvement guide: a practical approach to enhancing organizational performance. John Wiley & Sons, 2009.

# MAPPING

A visual depiction of a process.

Maps highlight:

- Unnecessary delays
- Unnecessary steps or transitions
- Duplication of effort (waste)
- Things that don't make sense
- Hotspots, bottlenecks, or constraints

Speaking Notes:

- Mapping can help identify opportunities for improvement.
- Maps highlight certain things such as:
  - Delays, overlap, and steps that don't make sense.
  - Bottlenecks and steps that might be in the wrong order.
  - Examples of steps that could be done by a different person.
- Mapping also allows people to see different perspectives of how things work and can help you anticipate how changes may affect other parts of the system.



# Optional Activity

## MAPPING A PROCESS

### Purpose

For participants to map a process.

### Time

30 minutes

### Materials

- Flip chart paper
- Post-it notes
- Markers

### Preparation

Set up flip chart paper for each group, and have post-it notes and markers at each station.

### Instructions

Work in pairs or small groups and map out a familiar process, such as making a sandwich or mailing a letter. Then analyze the map to identify opportunities to improve the process.

### Debrief

Have participants share an opportunity for improvement they identified from their maps, and any highlights or key learnings from the process of mapping.

Note differences among maps despite using the same example process. Highlight how people may have different perspectives of a process.

### Notes

Process mapping can also be a useful tool at the beginning of a project to identify areas of focus for your improvement work.

# CREATIVITY OF THE TEAM

Use novel ways of thinking to generate ideas for change.

## Speaking Notes:

- There may be other ideas for change that are not as obvious.
- Often the people involved in the work have ideas, including patients and families.
- There are some tools to help people think outside the box and generate creative ideas for change.
- Some of these activities can also help prioritize the ideas for change to determine which ideas might be the best ones to try out first.

A new ideal is delicate. It can be killed by a sneer or a yawn.  
It can be stabbed to death by a joke or worried to death by  
a frown on the wrong person's brow. - Charles Browder



# Optional Activity

## TRIZ - THEORY OF INVENTIVE PROBLEM-SOLVING

### Purpose

To generate and prioritize change ideas.

### Time

30 minutes

### Materials

- Flip chart paper
- Felts

### Preparation

Arrange participants in groups of 4-7. Alternatively, this can be done as a large group with all participants.

### Instructions

Ask participants to first make a list of ideas to make sure that the worst result imaginable with respect to their area for improvement occurs (ie: How can we make sure our clients have to wait forever for an appointment?).

Then as a group, review this list and check off each item that resembles anything they are currently doing. Go through the items that are checked off and decide what can be done to stop these things from happening.

From this list, prioritize your ideas for change and make a plan for testing them to achieve improvement.

### Debrief

Have participants share key learnings from this exercise. What were the results of flipping their perspective? What were the highlights of doing the TRIZ?

### Resources

Liberating Structures [www.liberatingstructures.com](http://www.liberatingstructures.com)

### Notes

This exercise can be a great way to engage people in the process of improvement, and can surface issues and problems in a comfortable and fun way.



# Optional Activity

## 25 GETS YOU 10

### Purpose

To generate and prioritize change ideas.

### Time

30 minutes

### Materials

- Index cards
- Pens
- Timer
- Bells or other sound-maker

### Preparation

Arrange a space which participants can stand and mingle around in. Distribute an index card and a pen to each person. Have a timer and sound-maker.

### Instructions

Ask participants to think about one big, bold idea for making change (ie: If you could do absolutely anything to try to make an improvement, what would you do?). Write a brief description on their index card.

Once everyone has written their idea down, ask them to quickly pass the cards from person to person until cued to stop (20-30 seconds), and then read the card they have at that moment. Rate that idea between 1-5, where 5 means you love the idea and 1 means you don't like it. Write your score on the back.

Repeat this until cards have been rated 5 times, then add the numbers on the back of the cards. Each card will have a total out of 25. Identify who has a card that has 25 points, 24, 23 etc. and share and discuss the ideas from the top-scoring cards.

### Debrief

Have participants share any key learnings that came from rapidly sharing and evaluating ideas for change and highlights from the process of using 25 Gets You 10.

### Resources

Liberating Structures [www.liberatingstructures.com](http://www.liberatingstructures.com)

### Notes

This exercise helps to stimulate bold thinking and draws on the wisdom of the whole group.



# Optional Activity

## SIX THINKING HATS

### Purpose

For participants to consider a change idea using multiple perspectives.

### Time

30 minutes

### Materials

- Six Thinking Hats worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

Work in small groups and select an idea for change that the team has been considering. Alternatively, you could use a change idea from the earlier example of decreasing clinic wait times, such as implementing self-scheduling or modifying the staff schedule.

Using the Six Thinking Hats worksheet, analyze that idea from each of the coloured hat perspectives.

### Debrief

Have participants share any key learnings that came from analyzing their ideas from the various perspectives and highlights from the process of using Six Thinking Hats.

### Resources

de Bono Group [www.debonogroup.com](http://www.debonogroup.com)

### Notes

Six Thinking Hats can also be used in team meetings or other types of conversations. It is a tool to facilitate people's thinking into separate functions and roles.

# ONCE CHANGES ARE IDENTIFIED...

1. Test on a small scale
2. Collect data over time
3. Build knowledge sequentially and include a wide range of conditions

## Speaking Notes:

- Ideas should be tested using PDSA cycles before they are implemented.
- Tests are simple and quick to start with and become more complex as they develop.
- Tests become bigger as we become more confident that the change is causing an improvement.
- Typically we need to test more than one change in order to meet the aim.

## Optional Discussion:

Think about a change you've been involved with that hasn't worked or hasn't been sustained. Share a brief overview of the change and some potential reasons why it was not successful.

The fastest way to succeed is to double your failure rate.

- Thomas Watson

# WHY DO WE NEED PDSA CYCLES?

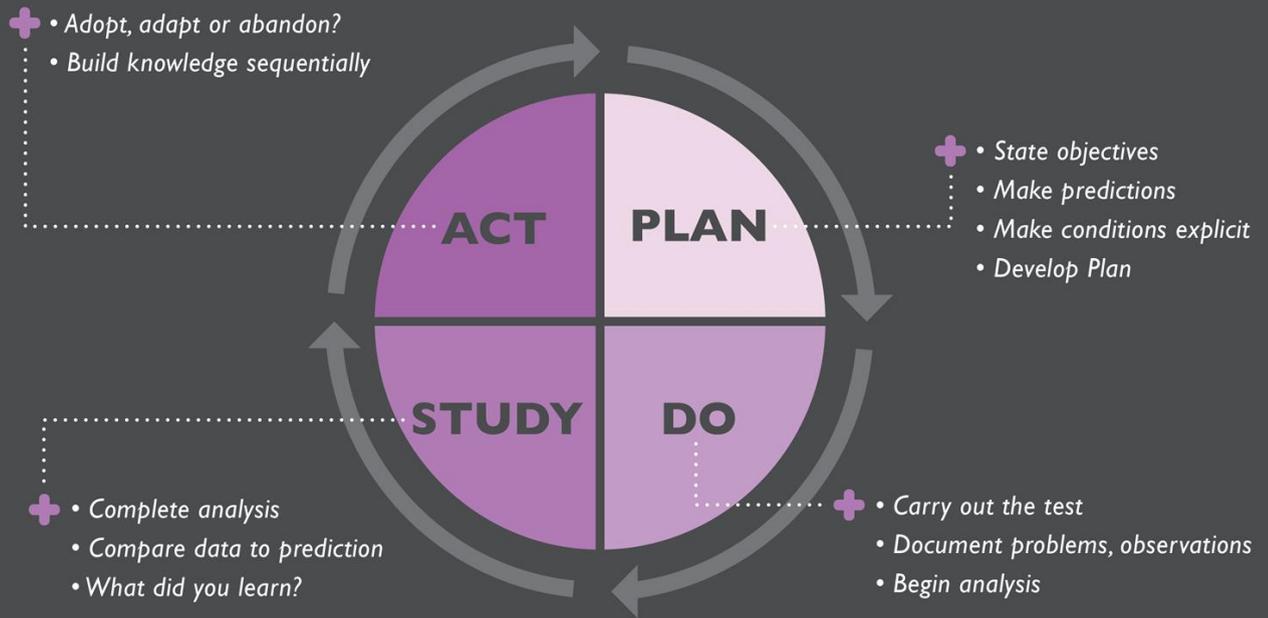
Because we don't know:

- How well an idea will work
- How the idea is best delivered
- If it will work in all conditions
- When it won't work
- How it will affect other parts of the system

## Speaking Notes:

- Testing is an integral part of improvement.
- Using small tests of change to develop an idea before fully implementing it can maximize the chances of success in achieving improvement.
- Pay attention to failed PDSA cycles as well because we can also learn a lot from what didn't work.

# PDSA CYCLE



(Adapted from Langley et al, 2009)

## Speaking Notes:

- Going through each section before the test helps keep it small and ensures no key steps to testing are missed.
- This is what the PDSA cycle should entail:
  - **Plan:** deciding what you want to learn about your idea and how you can learn it. The team should predict what will happen. You may predict it won't work and focus on learning why not.
  - **Do:** doing the test and small measurement that will tell you whether your prediction was right.
  - **Study:** comparing the prediction to the actual result and documenting what you learned from this cycle.
  - **Act:** deciding what to do next. You may decide to do another test of the same idea with a different twist.
- After a few different cycles, you may have decided that a test worked and that you are ready to implement it. Or you might decide to completely abandon this idea and do some tests with a different idea.

# AIM STATEMENT

“The wait time for the Get Better Clinic will decrease from an average of 135 days to 60 days by the end of this year.”

# CHANGE IDEA

Modify clinic hours.

Speaking Notes:

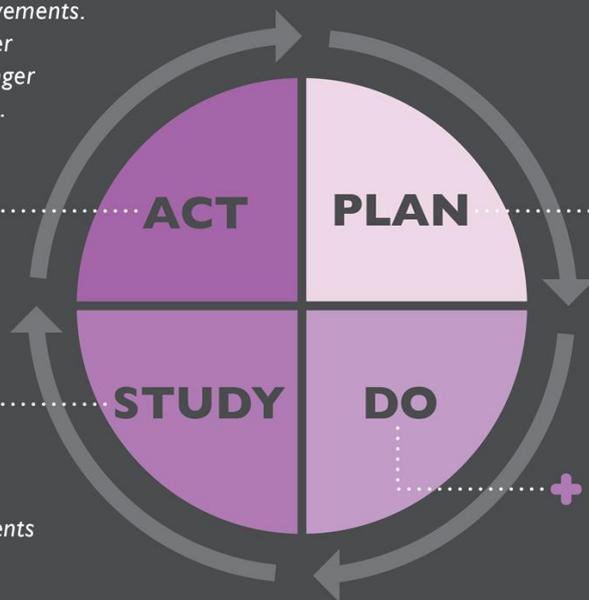
- For this example, one idea for change could be to modify the hours of the clinic.
- What would a PDSA cycle look like if you were to test this change?

Optional Discussion question:

What are some other ideas you can think of for changes to test in this situation?

# PDSA CYCLE

+ Some promising improvements.  
Consider adjusting other  
schedules or having longer  
hours on the weekends.



+ Adjust the schedule of  
one clinician to offer  
evening appointments  
one extra day/week.

+ Monitor demand for  
additional appointments

+ Make additional appointments  
available for clients

## Speaking Notes:

- Here is what a PDSA cycle might look like for one idea for change that could be tested.



# Optional Activity

## PAPER AIRPLANE COMPETITION

### Purpose

For participants to try doing small tests of change using PDSA cycles.

### Time

30 minutes

### Materials

- PDSA Cycle worksheet 
- Scrap paper
- Box of paper clips
- Rolls of masking tape

### Preparation

- Print a copy of the worksheet for each participant.
- Divide participants into groups of 2-5.
- Distribute scrap paper, paper clips, and masking tape so that each team has enough materials to make a few paper airplanes.

### Instructions

The objective is to design a paper airplane that will fly the furthest. Use PDSA cycles to test changes to your plane. Track the changes you make and be prepared to review your process with the group. You will have 15 minutes to design your paper airplanes and then each team will fly their plane once to determine which team's plane flies the furthest.

### Debrief

Ask each team to share some of the changes they tested and what they learned from their PDSA cycles and then fly their plane.

### Notes

- Ensure participants track the changes they make using PDSA cycles.
- This activity could also be used in Module 3 to reinforce learning about PDSA cycles.

# HOW BIG OF A CYCLE?

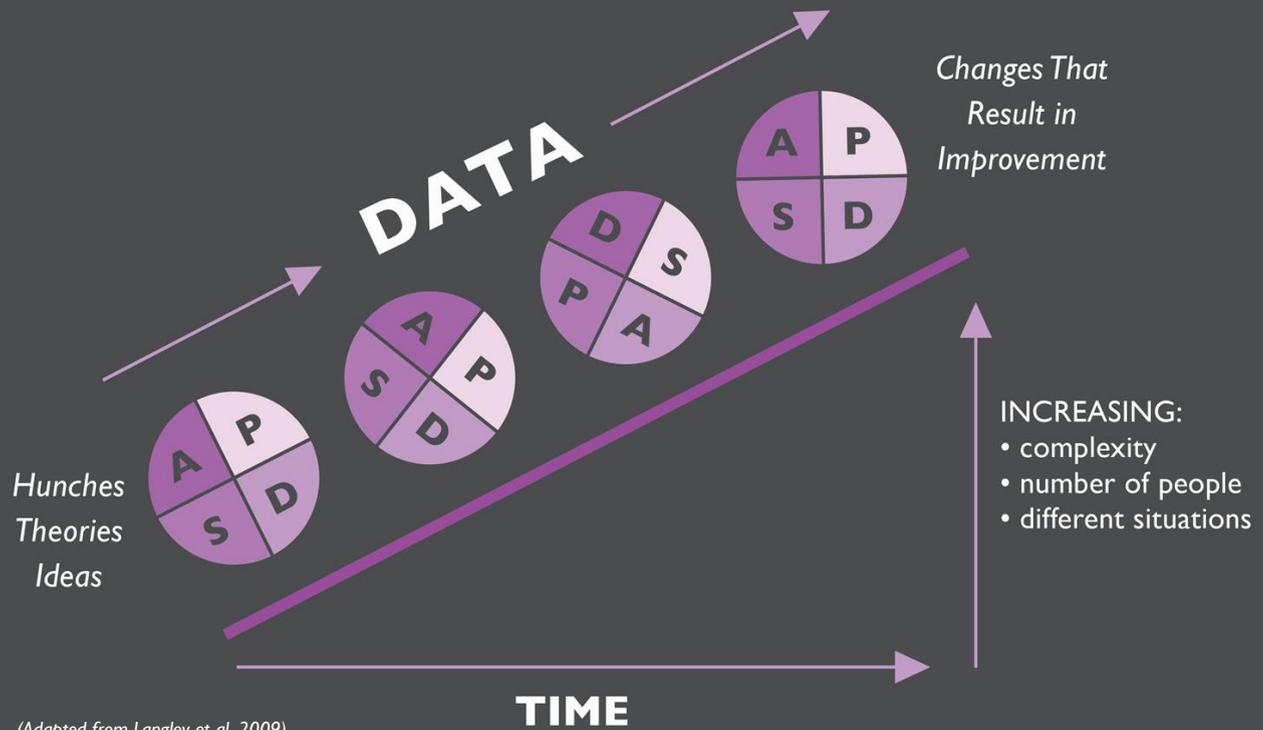
CURRENT SITUATION		RESISTANT	INDIFFERENT	READY
<b>LOW</b> confidence that current change idea will lead to improvement	Cost of failure large	Very small scale test	Very small scale test	Very small scale test
	Cost of failure small	Very small scale test	Very small scale test	Small scale test
<b>HIGH</b> confidence that current change idea will lead to improvement	Cost of failure large	Very small scale test	Small scale test	Large scale test
	Cost of failure small	Small scale test	Large scale test	Implement

(Adapted from Langley et al, 2009)

## Speaking Notes:

- This chart can help you determine how small or large the scale of your tests should be.
- If you are confident that the change idea will work, then you can use a larger-scale test.
- If the cost of failure is high, then you would want to use a smaller-scale test.
- And if there is some resistance to the change, then it is better to start with small tests of change.
- Testing can be a way to engage people in the process and help you learn from this resistance.

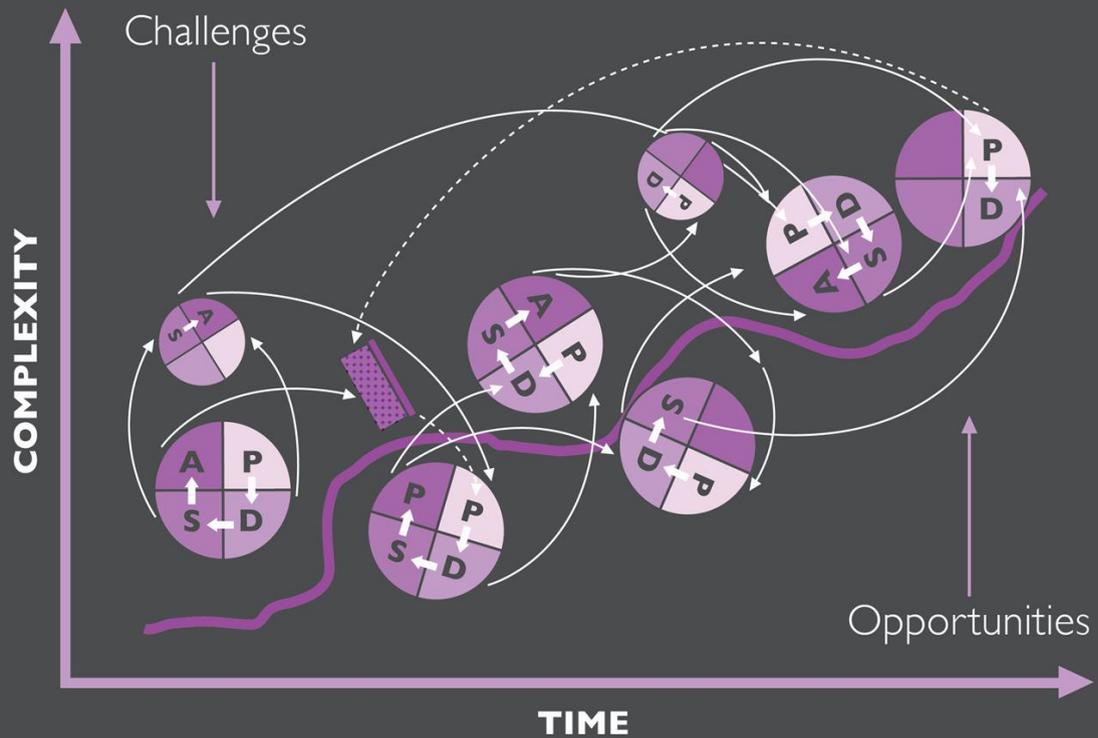
# REPEATED USE OF THE PDSA CYCLE



## Speaking Notes:

- PDSA cycles start small and then get more complex over time, until you have tested changes that you are confident will work.
- When the team's predictions start to be right all the time, it is time to move to more sophisticated tests – with more people and under different conditions.
- This is a PDSA ramp that shows how testing progresses from an idea to a change that results in improvement over time.

# PDSA REALITY



## Speaking Notes:

- While PDSA cycles seem straightforward, using them in a project is not necessarily a linear event. There can be multiple PDSAs going on at the same time, each at different stages. The important thing is to keep track of the learning that comes from each cycle.

Without continual growth and progress, such words as Achievement, Improvement, and Success have no meaning. - Benjamin Franklin

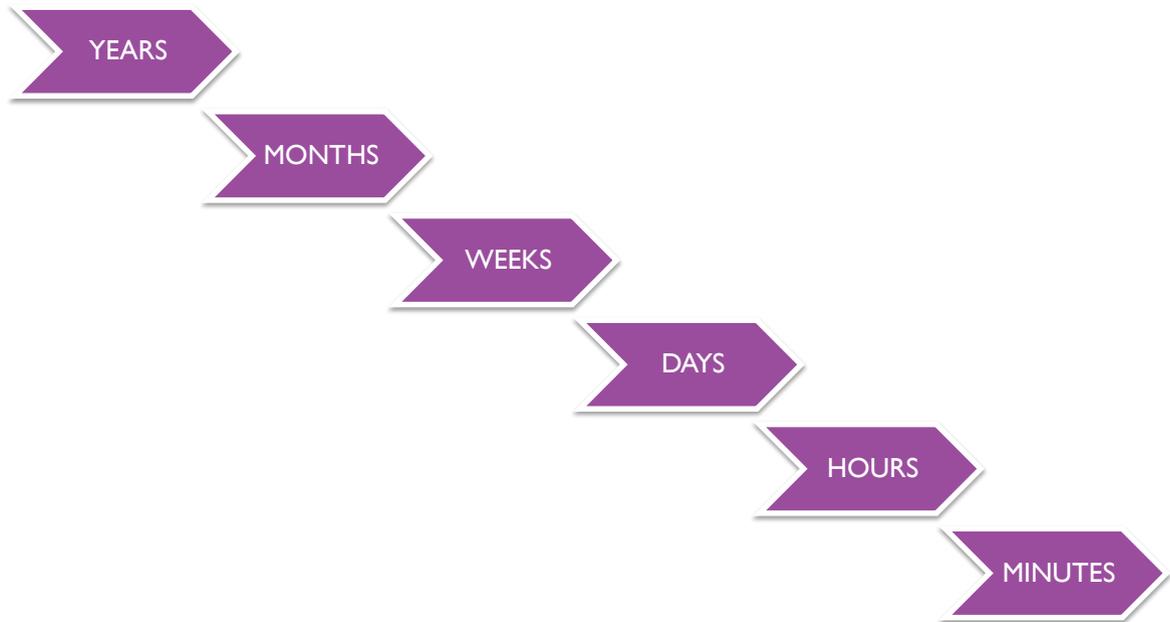
# TEST UNDER DIFFERENT CONDITIONS

- Different employees
- New employees
- Different patient groups
- Complex patients
- Day shift vs. night shift
- Hours of the day
- Days of the week

## Speaking Notes:

- An idea is ready to implement when it has been tested and the team knows it works under lots of different conditions.
- There might be some resistance to doing tests and concerns about the time it takes to do all of this. The time taken helps ensure the project will be successful and the improvement will be sustained.

# HOW LONG WILL IT TAKE?



## Speaking Notes:

- Tests of change should occur rapidly. You can build momentum toward your overall aim by focusing your efforts on incremental changes in the short term.
- To determine the timeline for your initial PDSA cycles, consider how long it will take to achieve your aim, then move 2 steps down this continuum. For example, if your aim will take 6 months to achieve, what can you do in 6 days to get started?

# SUSTAINABILITY

When new ways of working and improved outcomes become the norm...and stay the norm!

*(NHS Institute for Innovation and Improvement, 2010)*



## Speaking Notes:

- It's never too early to start thinking about sustainability - this is an inherent component of a well designed change.
- As we decide on what changes to make and how to go about testing changes, it's also important to consider if and how these changes will last over time.
- The changes we make to a process should be things that we can maintain or continue to do even after the project has completed.
- A good change is a sustainable change, and a lack of sustainment is often due to challenges with the original idea.



# Optional Activity

## PLANNING FOR SUSTAINABILITY

### Purpose

To identify strengths and potential challenges associated with a proposed change and promote sustainability of improvement.

### Time

30 minutes

### Materials

- Planning for Sustainability worksheet 
- Pens

### Preparation

Print a copy of the worksheet for each participant.

### Instructions

First on your own and then in small groups, consider each of the questions on the worksheet in relation to the change(s) you've proposed to achieve improvement. Note any concerns and discuss what steps you can take to address those concerns and ensure your changes are sustained over time.

### Debrief

- Did you learn anything new about the changes you proposed?
- Did you identify any gaps or limitations based on the questions in the worksheet?
- What steps can you take to ensure the changes you've proposed are sustained?

### Resources

NHS Institute for Innovation and Improvement, Sustainability Guide, 2010. <http://bit.ly/1SekSAY>

### Notes

There are a number of factors known to play a role when it comes to sustainability. Considering these factors can be a useful exercise at any time during your improvement initiative, from initial planning to implementation.

# KEEP IN MIND...

- Testing helps you learn about whether a change was effective
- You may predict that the test will fail – this is good for learning too
- Documenting PDSA cycles ensures that cycles are actually tests of change, not simply activities or tasks
- It is important to plan for sustainability at the outset

## Speaking Notes:

- Remember to make a prediction to help ensure the team is learning what it needs to when testing changes.
- Writing out the steps of PDSA cycles is good practice to help make sure the tests are not just tasks or activities.
- Thinking about how changes could be sustained in advance is important.
- Ensuring the necessary resources and supports are there to make sure the change can last over time will promote sustainability of your improvement.

## Optional Discussion Questions:

What stood out for you today? What do you want to remember about this session?

# TIME TO REFLECT

## Can you...

- Recognize opportunities for improvement and generate creative ideas for change?
- Develop and test an idea for change using PDSA cycles?
- Consider ways to sustain improvement over time?

### Speaking Notes:

- Overall, this module is meant to demonstrate how project teams can identify ideas for change and the methods for testing changes using lots of PDSA cycles, before the change is implemented.
- It takes a lot of effort to generate and test ideas, but putting in effort here will help ensure the project will be successful and will be sustained.

 Use any remaining time for questions and discussion.

Also, be sure to get feedback from your participants on the session. There is an evaluation form that you can use in the appendix. 

# Module References

de Bono Group. *Six Thinking Hats*. [www.debonogroup.com](http://www.debonogroup.com)

Institute for Safe Medication Practices, *Medication Error Prevention Toolbox*, 1999. <http://bit.ly/IPwfozO>

Langley, Gerald J., et al. *The improvement guide: a practical approach to enhancing organizational performance*. John Wiley & Sons, 2009.

Liberating Structures [www.liberatingstructures.com](http://www.liberatingstructures.com)

NHS Institute for Innovation and Improvement, *Sustainability Guide*, 2010. <http://bit.ly/ISekSAY>



# + WORKSHEETS



	THIS DIMENSION IS ABOUT:	EXAMPLES
ACCEPTABILITY		
APPROPRIATENESS		
ACCESSIBILITY		
SAFETY		
EFFECTIVENESS		
EQUITY		
EFFICIENCY		

# Dimensions of Quality KEY

	THIS DIMENSION IS ABOUT:	EXAMPLES
ACCEPTABILITY	<ul style="list-style-type: none"> <li>• Care is respectful of patient and family preferences, needs, and values.</li> <li>• Considers patient and family preferences, such as cultural values, and encourages family involvement in decision making.</li> <li>• Being empathetic to patients and families, following their wishes and expectations, and empowering them to be active in their own care.</li> </ul>	<ul style="list-style-type: none"> <li>• Visiting hours</li> <li>• Hospital food</li> </ul>
APPROPRIATENESS	<ul style="list-style-type: none"> <li>• Care provided is evidence-based and specific to individual clinical needs.</li> <li>• Grounded in best practices and optimizes an individual's health outcome.</li> <li>• Weighs the benefits and risks of care – aiming to provide maximum benefit.</li> </ul>	<ul style="list-style-type: none"> <li>• Overprescribing medication</li> <li>• Over- or under-diagnosis of mental health illness</li> <li>• Women in some areas are more likely to have a Caesarean section</li> </ul>
ACCESSIBILITY	<ul style="list-style-type: none"> <li>• Ease with which health services are reached.</li> <li>• Extent to which individuals can easily obtain the care when and where they need.</li> <li>• Aims to ensure there are not physical, financial or psychological barriers to receiving information, care and treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• Wait times</li> <li>• Access to a family doctor</li> <li>• Length of time to see a specialist</li> </ul>
SAFETY	<ul style="list-style-type: none"> <li>• Avoiding harm resulting from care.</li> <li>• Involves designing and implementing processes to prevent and minimize adverse outcomes or injuries that could unintentionally result from the delivery of care.</li> </ul>	<ul style="list-style-type: none"> <li>• Falls</li> <li>• Medication errors</li> <li>• Surgical site infections</li> </ul>
EFFECTIVENESS	<ul style="list-style-type: none"> <li>• Care that is known to achieve intended outcomes.</li> <li>• Achieves the best possible outcomes for patients by developing and carrying out care plans that are based on clinical evidence and best practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Patients with sepsis get antibiotics within a certain amount of time</li> <li>• Post-operative patients should mobilize within a certain amount of time</li> </ul>
EQUITY	<ul style="list-style-type: none"> <li>• Distribution of health care and its benefits fairly according to population need.</li> <li>• Does not mean the same health care for everyone because people have different needs.</li> <li>• People have equal access to the health services they need, regardless of gender, ethnicity, socioeconomic status, or where they live.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring people have a family doctor, regardless of where they live, socioeconomic status, etc.</li> </ul>
EFFICIENCY	<ul style="list-style-type: none"> <li>• Optimal use of resources to yield maximum benefits and results.</li> <li>• Delivering services to improve the health of more people by maximizing capacity and eliminating/avoiding waste.</li> <li>• Services are considered in light of value for money or providing the maximum amount of positive impact.</li> </ul>	<ul style="list-style-type: none"> <li>• Spending time searching for materials</li> <li>• Reminding other staff to do things</li> <li>• Redoing paperwork because it is needed for a different purpose, etc.</li> </ul>

- Rules-oriented
- Autonomy
- Well-organized
- Operational focus
- Making a difference
- Being competitive
- Stress
- Supporting diversity
- Efficiency
- Courage to do what's right
- Holistic thinking
- Willingness to experiment
- Environmentally responsible
- Caring
- Socially responsible
- Trust
- Bureaucracy
- Being of service to others
- Accountability
- Taking initiative
- Being collaborative
- Fulfilling work
- Having high expectations
- Personal reliability
- Cost focus
- Task-oriented
- Ethical
- Sense of meaning
- Being passionate
- Excellence
- Well-being
- Job security
- Fun
- Empowerment
- Being analytical
- Profit focus
- Arrogant
- Being adaptable
- Professional growth
- Hierarchical
- Status-oriented
- Empathy
- Focus on coaching and mentoring
- Fear
- Creativity
- Self control
- Execution
- Being reflective
- Values-driven
- Individualistic
- Inconsistent
- Having a noble purpose
- Internally-focused
- Inspirational
- Work-life balance
- Long-term orientation
- Visionary
- Customer focus
- Innovation
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- Global involvement
- Reactive
- Risk-taking
- Employee focus
- Personal growth
- Routine
- Continuous improvement
- Quality focus
- Sense of community
- Internal politics
- Command and control
- Power
- Lack of shared purpose
- Being intuitive
- Safety focus
- Precision
- Openness
- Silos
- Respect for people
- Short-term orientation
- Conflict
- Willingness to listen
- Slow moving

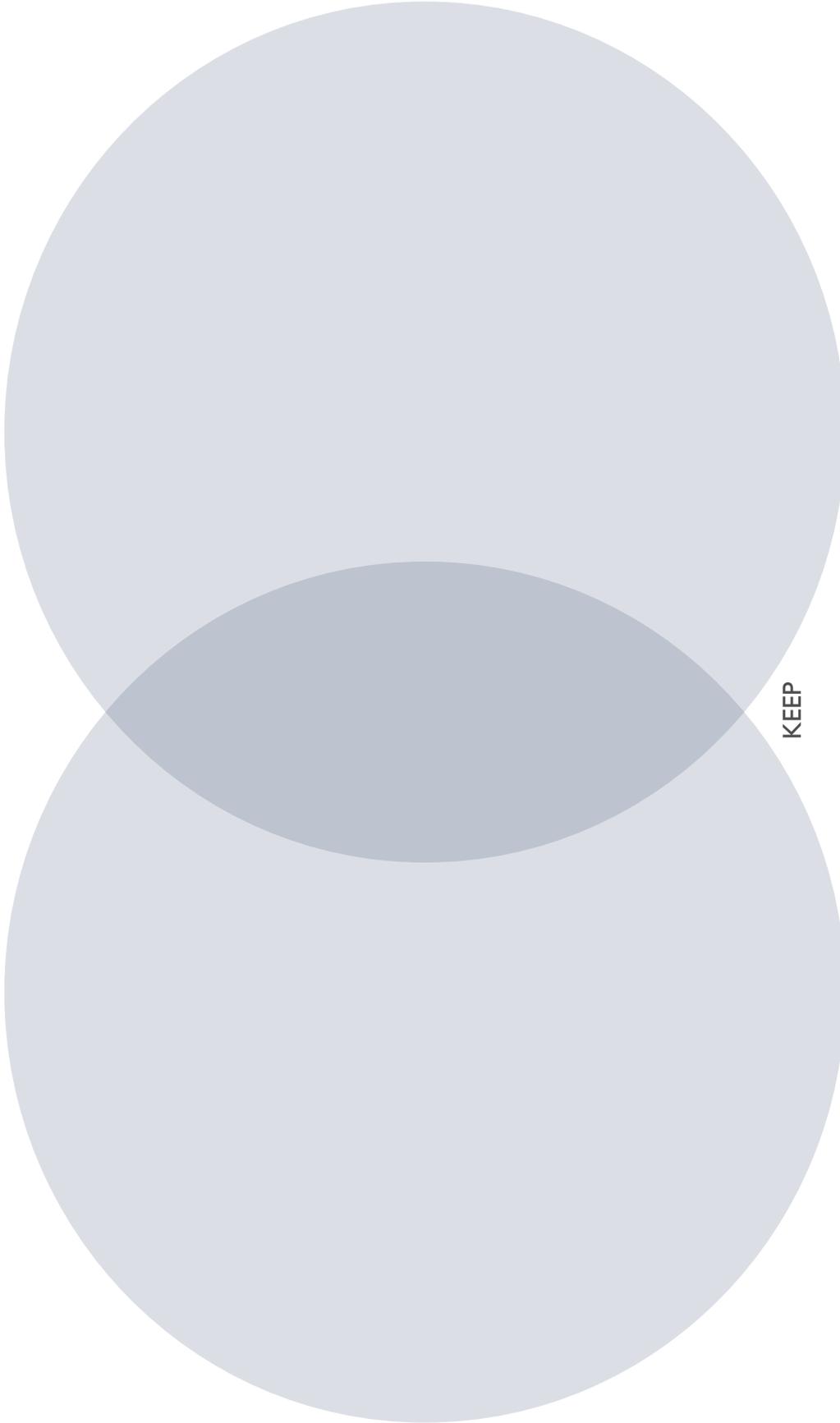
# CULTURE: DESIRED

# WORKSHEET

- Rules-oriented
- Autonomy
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- Supporting diversity
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- Conflict
- Willingness to listen
- Slow moving

Top 10 Desired

Top 10 Current



BUILD

KEEP

ACKNOWLEDGE

FROM...	TO...

AIM STATEMENT:	WHAT AM I ASKING THEM TO COMMIT TO?				
	FRAMES I CAN USE TO ENGAGE THEM				
	WHO NEEDS TO BE ENGAGED				
	PRIORITY				

Adapted From: NHS Institute for Innovation and Improvement, Academy for Large Scale Change,

# ENGAGING STAKEHOLDERS

## WORKSHEET

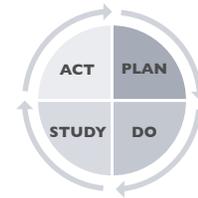
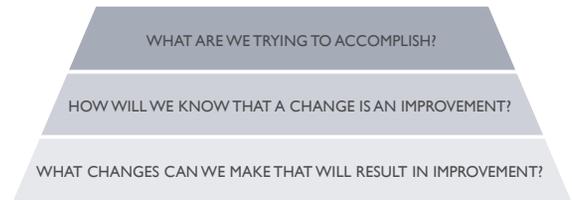
WHAT AM I ASKING THEM TO COMMIT TO?							
STAKEHOLDER GROUP NEEDS							
STAKEHOLDER GROUP ASSETS							
HOW CAN I ENGAGE THEM? <small>(problem to solve, consequences to avoid, vision to achieve, linkages to other things, etc.)</small>							
INDIVIDUALS OR GROUPS TO ENGAGE <small>(list names)</small>							
STAKEHOLDER GROUP							
PRIORITY							

**PROJECT NAME:**

**SPONSOR:**

**TEAM LEADER:**

**TEAM MEMBERS:**



## WHAT ARE WE TRYING TO ACCOMPLISH?

**Problem Statement:** *(What is the gap in quality this work is going to address?)*

**Aim Statement:** *(What will improve? By how much? By when? Where?)*

**Scope and Boundaries:** *(What will the project include?)*

## HOW WILL WE KNOW A CHANGE IS AN IMPROVEMENT?

	Current Performance	Goal	Plan to collect data for this measure
Outcome Measures			
Process Measures			
Balancing Measures			

## WHAT CHANGES CAN WE MAKE THAT WILL RESULT IN IMPROVEMENT?

Change Ideas to Test:

Initial PDSA cycles: *(To learn if...)*

## HOW WILL WE MANAGE THE IMPROVEMENT PROJECT?

### ROLES & RESPONSIBILITIES OF TEAM MEMBERS:

Name:

Role/Responsibilities:

Key Dates:

Plan to Incorporate Voice of Patient/Client/Resident:

Measure:

		1	2		
		3	4		
		5	6		
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
		25	26		
		27	28		
		29	30/31		

# Safety Cross Case Study

The staff at the Get Better Clinic have decided to try and improve their service for their clients. Together, they are working on an improvement project to decrease wait times.

Their aim statement is: The wait time for the Get Better Clinic will decrease from an average of 135 days to less than 60 days by the end of this year.

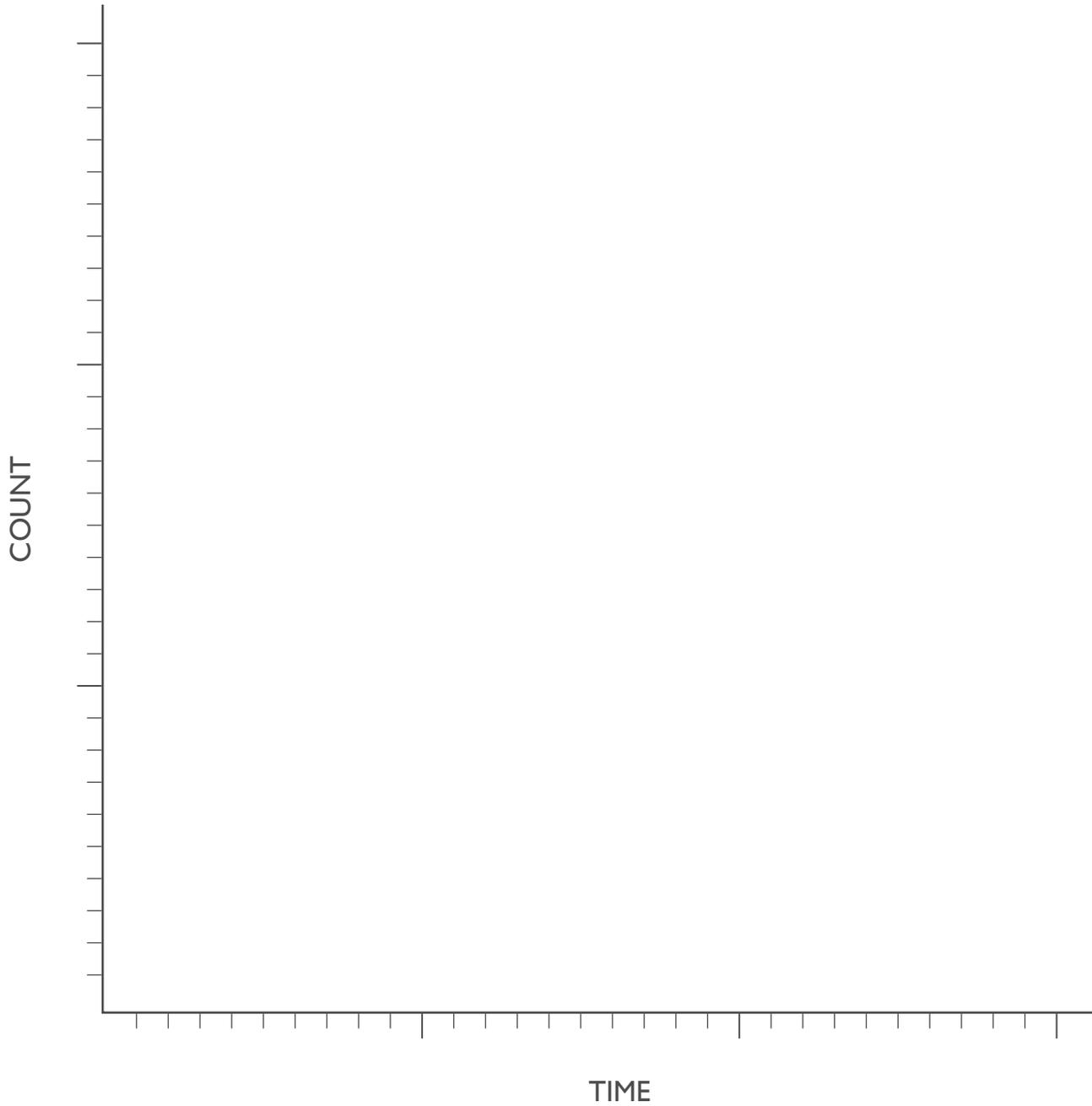
To achieve this aim, the clinic staff team is working hard on a number of changes to help increase flow through their clinic. They tracked the average wait time for patients each day and marked whether or not this average was within their stated goal using a Safety Cross.

The averages from their third month of the project are listed below. Fill in the Safety Cross template using this data.

Are they achieving improvement?

DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS	DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS	DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS
1	146	11	82	21	63
2	157	12	79	22	130
3	90	13	74	23	124
4	93	14	60	24	52
5	85	15	125	25	58
6	88	16	151	26	49
7	87	17	63	27	50
8	151	18	62	28	49
9	140	19	60	29	120
10	79	20	58	30	130

On Wednesdays and Thursdays, the clinic had evening appointments available, which were very popular with their clients. Can you see evidence of this demand in the data?



# Run Chart Case Study

The staff team at the Get Better Clinic have decided to try and improve their service for their clients. Together, they are working on an improvement project to decrease wait times. Their aim statement is: The wait time for the Get Better Clinic will decrease from an average of 135 days to less than 60 days by the end of this year.

1. To achieve this aim, the clinic staff team is working hard on a number of changes to help increase flow through their clinic. They tracked the average wait time for patients each day. The averages from their fifth month of the project are listed below. Can you plot them in a run chart?

DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS	DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS	DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS
1	146	11	82	21	63
2	157	12	79	22	130
3	90	13	74	23	124
4	93	14	60	24	52
5	85	15	125	25	58
6	88	16	151	26	49
7	87	17	63	27	50
8	151	18	62	28	49
9	140	19	60	29	120
10	79	20	58	30	130

**MEDIAN: 83.5**

1. Over time, the project team amalgamated their data to show the average wait time per month. The averages from nine months of their project are listed below. Plot these averages in a run chart.

Are they achieving improvement? How do you know? What do you predict their average will be in January?

DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS	DAY OF THE MONTH	AVERAGE WAIT TIME IN DAYS
April	135	September	95
May	137	October	80
June	124	November	75
July	125	December	62
August	93	January	?

**MEDIAN: 95**

TARGET RESULT					
BASELINE RESULT					
FREQUENCY OF DATA COLLECTION					
DATA COLLECTION STRATEGY					
OUTCOME, PROCESS OR BALANCING					
MEASURE					



## Eliminate Waste

1. Eliminate things that are not used
2. Eliminate multiple entries
3. Reduce or eliminate overkill
4. Reduce controls on the system
5. Recycle or reuse
6. Use substitution
7. Reduce classifications
8. Remove intermediaries
9. Match the amount to the need
10. Use Sampling
11. Change targets or set points

## Improve Work Flow

12. Synchronize
13. Schedule into multiple processes
14. Minimize handoffs
15. Move steps in the process close together
16. Find and remove bottlenecks
17. Use automation
18. Smooth workflow
19. Do tasks in parallel
20. Consider people as in the same system
21. Use multiple processing units
22. Adjust to peak demand

## Optimize Inventory

23. Match inventory to predicted demand
24. Use pull systems
25. Reduce choice of features
26. Reduce multiple brands of the same item

## Change the Work Environment

27. Give people access to information
28. Use Proper Measurements
29. Take Care of basics
30. Reduce de-motivating aspects of pay system
31. Conduct training
32. Implement cross-training
33. Invest more resources in improvement
34. Focus on core process and purpose
35. Share risks
36. Emphasize natural and logical consequences
37. Develop alliances/cooperative relationships

## Enhance the Producer/Customer Relationship

38. Listen to customers
39. Coach customer to use product/service
40. Focus on the outcome to a customer
41. Use a coordinator
42. Reach agreement on expectations
43. Outsource for “Free”
44. Optimize level of inspection
45. Work with suppliers

## Manage Time

46. Reduce setup or startup time
47. Set up timing to use discounts
48. Optimize maintenance
49. Extend specialist’s time
50. Reduce wait time

## Manage Variation

51. Standardization (Create a formal process)
52. Stop tampering
53. Develop operation definitions
54. Improve predictions
55. Develop contingency plans
56. Sort product into grades
57. Desensitize
58. Exploit variation

## Design Systems to Avoid Mistakes

59. Use reminders
60. Use differentiation
61. Use constraints
62. Use affordances

## Focus on the Product or Service

63. Mass customize
64. Offer product/service anytime
65. Offer product/service anyplace
66. Emphasize intangibles
67. Influence or take advantage of fashion trends
68. Reduce the number of components
69. Disguise defects or problems
70. Differentiate product using quality dimensions
71. Move steps in process closer together
72. Manage variation, not tasks

# SIX THINKING HATS

Our Idea: \_\_\_\_\_

	THINK ABOUT....	COMMENTS....
<p>WHITE</p> 	<p>What further information is needed?</p>	
<p>YELLOW</p> 	<p>Positives/Benefits</p>	
<p>BLACK</p> 	<p>Drawbacks/Risks</p>	
<p>RED</p> 	<p>What does your gut say?</p>	
<p>GREEN</p> 	<p>What are other alternatives or possibilities?</p>	
<p>BLUE</p> 	<p>Are we staying on track? Next steps...</p>	

Adapted from: [www.debonogroup.com](http://www.debonogroup.com)

Project Name: \_\_\_\_\_

Cycle #: \_\_\_\_\_

Objective: \_\_\_\_\_

## + ACT

- *Adopt, adapt, or abandon.*
- *What action are we going to take as a result of this cycle?*
- *Are we ready to implement?*
- *What other process might be affected by this change?*

## + PLAN

- *Details of the plan (who, what, where, when, and how) including data collection*
- *What change are we testing? What is our prediction and theory?*

## + STUDY

- *Complete analysis. Summarize new knowledge*
- *Do you agree with the prediction? What new questions or issues arose? What is our updated theory? Under what conditions could the results be different?*

## + DO

- *Carry out the plan.*
- *Record data, observations, and modifications to the plan.*

Objective of Next Cycle: \_\_\_\_\_



		QUESTIONS TO CONSIDER	
<b>PROCESS</b>	Factors related to the change itself – what about the new process will prevent things from reverting to the old way?	Benefits beyond helping patients	In addition to helping patients, what are the other benefits? For example, does this change reduce waste, help things run more smoothly? Will staff notice a difference in their daily work?
		Credibility of benefits	Are benefits to patients, staff and the organization visible? Do staff believe in the benefits? Can staff clearly describe the full range of benefits? Is there evidence that this type of change has been beneficial elsewhere?
		Adaptability	Can the new process overcome internal issues, or will this disrupt the change? Does this change continue to meet ongoing needs effectively? Does the change rely on a specific individual or group of people, technology, or funding to keep it going? Can it keep going when these are removed?
		Monitoring progress	Does the change require special monitoring systems to identify and measure improvement? Is anything in place to continue to monitor progress? Is there a feedback system to reinforce benefits and guide further action? Are the results of the change communicated to patients, staff, and the wider community?
<b>STAFF</b>	Factors related to people involved – are they supportive of the change and willing to continue on with the new way of doing things?	Training and involvement	Do staff play a part in designing, testing, and implementing the change? Have they used their ideas to inform the change from the beginning? Is there training available to build staff members' knowledge and skills to take this change forward?
		Behaviours	Do staff express their ideas regularly throughout the change process and is their input taken into account? Do staff think that the change is a better way of doing things? Are staff able to run PDSA cycles based on their ideas to learn if additional improvements should be recommended?
		Senior leaders	Are senior leaders trusted and respected? Are they involved in the initiative? Do they understand and promote it? Are they respected by their peers and can they influence others to get on board? Are they helping to break down barriers and provide support to ensure the change is successful?
		Clinical leaders	Are clinical leaders trusted, respected, and influential? Are they involved in the initiative? Do they understand and promote it? Are they respected by their peers and able to influence others? Are they helping to break down barriers and giving their time to help ensure the change is successful?
<b>ORGANIZATION</b>	Factors related to the organization – are there resources and systems in place to maintain the change?	Alignment	Are the goals of the change clear and shared? Are they clearly contributing to organizational strategic aims? Is improvement important to the organization? Has the organization successfully sustained improvements in the past?
		Fit with culture	Are the staff fully trained and proficient in the new way of working? Are there enough facilities and equipment to support the new process? Are new requirements built in to job descriptions? Are their policies and procedures supporting the new way of working? Is there an effective communication system in place?

# AGENDA

TIME	TOPIC	DESCRIPTION



# THINGS TO CONSIDER ALONG THE JOURNEY TO IMPROVEMENT

## Envision

- What is the patient population you want to target?
- What process do you want to improve?
- Who could be affected? Which sites? Which team members?
- Is there baseline data available? What could you measure?
- What does the current system look like? Can you visualize it or map it out?
- What is the ideal system you'd like to achieve? What gaps exist between this ideal state and the current state?
- Is there any evidence available to guide you?
- Have others done similar work before? What worked well for them?
- What do you need to help you?
- What kind of support do you need from your leadership?
- What do you hope to achieve?

## Strategize

- Who do you need on your team? What will their roles be and how will you work together?
- What will the scope of your efforts include? What is outside of this focus?
- What will you measure? How will data be collected?
- How will you analyze the data?
- How will you share the data with others?
- How will you keep your leaders informed and engaged?
- Where is the best place to get started? Is there a quick win to get the momentum going?
- What barriers do you anticipate? How do you plan to overcome these?

## Iterate

- What changes can we test?
- What have we learned from testing changes?
- What happens when the system fails?
- How can you engage the people doing the work to actively participate in changes?
- What issues can you anticipate for sustaining this change? How can you plan for sustainability now?
- What challenges or barriers are you encountering? What are some ways to overcome these?
- What additional resources might be helpful?

## Implement

- How can you continue to collect information about how things are going?
- What opportunities might there be for further improvements?
- How can the new system be perfected?

## Sustain and Spread

- Are there adequate resources to maintain the new system?
- How can you share your successes and learning?
- What other areas may benefit from learning about this process?
- What adaptations are needed for this to be successful in other areas?

# INDEX

	LEARNING OBJECTIVES	CONTENT/ CONCEPTS	OPTIONAL ACTIVITIES & CUSTOM CONTENT
<b>FUNDAMENTALS FOR CHANGE</b>	<ul style="list-style-type: none"> <li>• Define quality and quality improvement in healthcare</li> <li>• Appreciate the importance of attending to complexity and culture in improvement initiatives</li> <li>• Engage stakeholders and work as a team to achieve improvement</li> </ul>	<ul style="list-style-type: none"> <li>• QI in Healthcare</li> <li>• Defining Quality</li> <li>• Fundamentals of QI</li> <li>• Quality Culture</li> <li>• Culture</li> <li>• Complex Adaptive Systems</li> <li>• Mindsets</li> <li>• Framing</li> <li>• Building a Team</li> </ul>	<ul style="list-style-type: none"> <li>• Quality Improvement in Healthcare</li> <li>• BC Health Quality Matrix</li> <li>• Current and Desired Culture</li> <li>• Mindset Shift</li> <li>• Framing</li> <li>• Team Planning</li> <li>• Engaging Stakeholders</li> </ul>
<b>THE PROCESS FOR IMPROVEMENT</b>	<ul style="list-style-type: none"> <li>• Explain the Model for Improvement and apply it to an improvement project</li> <li>• Initiate an improvement project and use a project charter</li> </ul>	<ul style="list-style-type: none"> <li>• Model for Improvement</li> <li>• Improvement Charter</li> <li>• Problem Statement</li> <li>• Aim Statement</li> <li>• Scope and Boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement Charter</li> <li>* <i>Custom Content: problem statement, aim statement</i></li> </ul>
<b>MEASURING AND USING DATA</b>	<ul style="list-style-type: none"> <li>• Explain the importance of collecting data over time</li> <li>• Define key measures</li> <li>• Describe strategies to collect and display data</li> </ul>	<ul style="list-style-type: none"> <li>• Collect Data Over Time</li> <li>• Choosing Measures</li> <li>• Types of Measures</li> <li>• Defining Measures</li> <li>• Measurement Plan</li> <li>• Data Collection</li> <li>• Data Display</li> </ul>	<ul style="list-style-type: none"> <li>• Safety Cross</li> <li>• Run Chart</li> <li>• Measurement Plan</li> <li>* <i>Custom Content: choosing measures, types of measures</i></li> </ul>
<b>FROM IDEAS TO IMPLEMENTATION</b>	<ul style="list-style-type: none"> <li>• Recognize opportunities for improvement and generate creative ideas for change</li> <li>• Develop and test an idea for change using PDSA cycles</li> <li>• Consider ways to sustain improvement over time</li> </ul>	<ul style="list-style-type: none"> <li>• Ideas for Change</li> <li>• Effectiveness of Changes</li> <li>• Generating Ideas</li> <li>• Testing a Change</li> <li>• PDSA cycles</li> <li>• Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Change Concepts</li> <li>• Mapping</li> <li>• TRIZ</li> <li>• 25 Gets You 10</li> <li>• Six Thinking Hats</li> <li>• Paper Airplane PDSA</li> <li>• Planning for Sustainability</li> </ul>





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