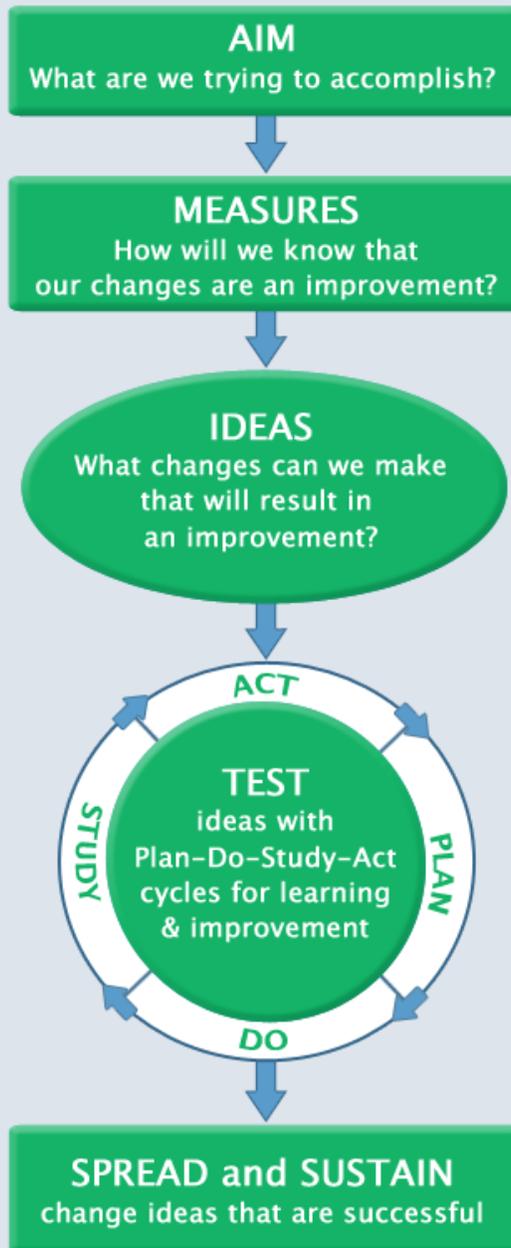


## GETTING STARTED

Select a QI Project

Assemble a QI Team

## THE MODEL FOR IMPROVEMENT (The QI Roadmap)



## STEP BY STEP GUIDE TO IMPLEMENT QUALITY IMPROVEMENT

### SELECT A QI PROJECT

Choosing the right project is important. If the project is the first for your organization it is important to choose one that will be successful and produce results that gain buy-in from others in the organization. (It does not have to be a large project; sometimes smaller projects that produce results have a great impact.) Given the current budget constraints, one recommendation is to choose a project that focuses on improving efficiency within your organization.

When choosing a project, consider the following:

- Where are the gaps between what you desire and your actual performance? (Conduct a Gemba Walk to gather ideas, review your community health assessment, accreditation results, financial performance, and client/staff satisfaction surveys for ideas.)
- Does the project have a strategic connection for your organization?
- What areas do front line staff and clients think needs improving?
- Can the project be done on a small scale and show results within 3 months?
- How confident are you that the project can be completed successfully? (Consider the leadership support from top to bottom for the project as well as fiscal resources. Implementing projects that will produce “early wins” will help gain buy-in to do future projects.)
- Does the project have the “Wow! Factor”? Is it an area that desperately needs improvement? Will showing improvements in this area gain buy-in from staff to do future QI projects?
- What is the resistance level from staff/managers/leaders? Choose an initial project that has low resistance.

### ASSEMBLE A QI TEAM

Selecting the right team is important for successful implementation of your QI project. It is much easier to embrace change when you are involved in helping fix the problem rather than being told how to fix it. Choose your team members based on their knowledge of, and involvement in, the processes that will be affected by your selected improvement project. We recommend a core team of 4-8 individuals, though you may need additional "ad-hoc" team members to contribute at times. Team selection should be linked to your QI project. Try to create a diverse (age, gender, race etc.) and multi-discipline team. As you assemble your team, consider including members who can serve in the following capacities (Note: A team member sometimes may play more than one role):

- **A Project Sponsor** has executive authority and serves as a link to senior management and the strategic aims of the organization, ensures resources and overcomes barriers on behalf of the team, and provides accountability for team members. This individual is not a day-to-day participant in team meetings and testing, but should review the team's progress on a consistent basis.
- **A QI Team Lead** is an individual with enough clout to help implement new changes and the authority to allocate the time and resources necessary to achieve the team's aim. It is important that this person have influence over areas that are affected by the change.

Examples of a QI Team Leader may include: Director of Nursing, Middle Manager, or Program Director.

- **The QI Expert may** have familiarity with QI methods and understands the processes and procedures that are the focus of improvement efforts. This individual has a good working relationship with colleagues, can “get things done,” and knows who to consult with when additional support or clinical/technical information is needed to guide the improvement efforts. Examples of QI Experts may include: Quality Improvement/Quality Assurance Coordinator.
- **Local Experts** are “front-line” staff whose daily work occurs in the area that is the focus of the improvement. They have a thorough understanding of the processes and procedures and can identify ideas for how to improve the process. They will benefit directly from changes and are able to understand the effects of proposed changes and have the desire and ability to drive the improvement project on a daily basis. Be sure to include local experts from all disciplines/roles involved in the process (e.g., local experts for a clinical project may be clinical providers, nurses, technicians, and clerical staff.)
- **Outside Perspective** is an individual who is not directly involved in the process and can provide a “fresh perspective” to the process. They often ask the “why is it done that way?” questions and often suggest innovative changes to improve the process. This individual should not be timid to speak up and ask the “why?” questions (e.g., for clinical projects an outside perspective may be someone from Environmental Health.)
- **QI Project Manager** is usually the QI Team Leader or Local Expert who provides organization and management for the project. Specifically, they are detail oriented and the driver behind the project. They help the team stay on track by developing timelines, monitoring progress on the project tasks, and facilitating team meetings.

#### Example QI Projects and Teams

##### **Project Example 1:**

We aim to increase the number of patients scheduled for Primary Care Clinic, in order to increase services to our citizens, and thereby increase revenue for the Primary Care Clinic to assure sustainability by October 1, 2010. We will achieve this by reviewing our current Primary Care Clinic flow.

##### **Team Members:**

- QI Coordinator (QI Team Lead), Secretary, Medical Office Assistant, LPN - Primary Care, Lead Nurse, Director of Nursing, and Environmental Health Specialist

##### **Project Example 2:**

We aim to increase efficiency for accessing septic system permits by 80% in order to increase both internal and external customer satisfaction. Because the current process is time consuming, involves many steps, is occasionally inaccurate, and the filing process is outdated.

##### **Goals:**

- Efficiency for accessing septic system permit documents will be increased by 80%.
- Internal and external customer satisfaction will be increased by 80%.

##### **Team Members:**

- Director of Public Health Development (QI Team Lead), On Site Waste Water Program Specialist EH Supervisor I, Office Assistant IV, and EH Specialist

## **DEVELOP AN AIM STATEMENT** (Answers the question: *What are we trying to accomplish?*)

How many times have you been part of a project that lacks direction? Lack of direction and scope can lead to wasted resources, frustration, and even project failure. An aim statement acts as your compass to guide and focus your team's efforts. It is an explicit statement of the desired outcome of your improvement project. It is **Specific, Measureable, Achievable, Relevant, and Time bound**. A good aim statement includes the following components:

- **What** are we trying to accomplish?
  - Identify the problem and identify the overall goal (i.e. your long term outcome)
  - Use words like improve, reduce, and increase
- **Why** is it important?
  - This should answer the questions “so what?” or “why bother doing this project?”
- **Who** is the specific target population?
  - Who or what area is the project focused on?
- **When** will this be completed?
  - Include a specific time for completing the improvements (month/day/year)
- **How** will this be carried out?
  - It is NOT a specific list of tasks/strategies you will do, instead what methods you will use at a high level (i.e. QI methods and principles, Bright Futures toolkit, etc.)
- **What** are our measurable goals?
  - What are some processes and short term outcome goals that will help you know that you have achieved your overall project aim? (i.e., reduce wait time for child health clinic from 2 hours and 45 minutes to 1 hour and 30 minutes, increase customer satisfaction scores from 50% to 85%, etc.)
  - Include 4-6 goals
  - The goals are similar to SMART objectives--remember you want to have ‘stretch’ goals. For example, if your baseline data for time to process an application is 15 days you would not want to make your goal 12 days, because your team would not have to “stretch” to meet that goal.)

## **DEVELOP MEASURES** (Answers the question: How will we know our changes are an improvement?)

Have you ever changed something? How did you know that the change you made was an improvement? You probably had some kind of data to assess the improvement (e.g., a tally of positive comments from observers or before and after pictures).

When doing an improvement project measurement is a key ingredient. It helps show results and achievements toward your desired goal and also helps replace personal subjectivity so that you do not rely on the notion of “I think or I feel that things are better”. Instead, you have data to actually show if the changes you make are improving your current process. As you collect data for your project, you should include three types of measures, which are linked to your project aim and goals. These measures include:

- **Outcome**--the ultimate results you are trying to achieve
  - Examples: Overall wait time for family planning visit, time to receive final septic tank permit, overall time to process an application, etc.

- **Process**-what you do to achieve your outcome
  - Examples: Number of forms to complete, number of steps the patient takes during their visit, number of steps in a process, etc.
- **Balancing**-what could we “mess up” while trying to improve the process
  - Examples: Satisfaction with the time spent with provider when increasing clinic efficiency, accuracy and completeness of a form when trying to streamline a process, etc.

While it is critical to have quantitative measures as above, qualitative data including stories from customers/staff and before and after pictures are important to add richer meaning to your results. In addition, these items will be critical to fully communicate the success of your project as well as help spread your improvements to other areas in your organization. Once measures are established, it is important to define the measures and develop a plan for collecting the data (e.g. how will it be collect, how often, who will collect it, etc.) A **measurement plan** can be used to summarize the details of your data collection plan. As you collect your data, use a **run chart** or other graphs to display the data.

Additionally, as part of your measurement plan, you should begin to think about how you are going to capture data to calculate a **Return on Investment (ROI)** for your project. ROI will help provide additional data to show the importance and impact of the improvements.

*\* We recommend using a project charter to summarize all the information for your project (e.g. aim statement, measure, team participation, scope, and stakeholders). Once the team has developed a charter, it is important to review it with your organization’s leadership, management team and other senior managers and get their sign-off to ensure everyone is in agreement on the project aim and agree to provide the needed resources to support the project.*

## **IDENTIFY CHANGE IDEAS** (*Answers the question: What changes can we make that will result in an improvement?*)

### Understand the Current Condition

Before you can make an improvement it is important to understand how your current process works. A great way to accomplish this is to conduct an observational walk by going to where the work is done (also referred to as the Gemba Walk). It is important to observe the process (and flow) firsthand so that you can see how the process is actually performed versus how you think it is performed. It is best to schedule a time when your entire QI team can conduct the Gemba walk together. As you observe the process you should:

- Document each step of the process
- Record the time it takes to complete each process step (cycle time)
- Record the time it takes to complete the entire process from start to end (lead time)
- Record any wait times between each process step or during the process step
- Document any “waste” you see in the process—remember to view the process from your customer’s point of view. (Use the **8-Wastes Form** to help identify the wastes--Defects, Overproduction, Waiting, Non Value-Added Processing, Transportation, Inventory, Motion, and Employee Underutilization)

After the Gemba Walk, the team should discuss the “waste” identified and create a list. Additionally, the team should use the data collected to create a **value stream map**. This visual depiction of your process greatly helps the team analyze the process, see where the flow is interrupted or stopped, and highlight opportunities to reduce waste and improve the process. Depending on your aim statement

and goals, some additional tools may be used to enhance your team's understanding of the current process, including focus groups, surveys, *spaghetti diagrams, swim lane chart, focus groups, and interviews with staff and customers.*

Once you have analyzed the process, it is time to identify opportunities for improvement. Review your current process through the eyes of your client and begin to categorize each activity within the process based upon Lean thinking:

- What activities are **value added**? (i.e., activities that the client/community deems necessary and are at the right time and cost)
- What activities are **non-value added but necessary**? (i.e., activities that have to be performed but are not considered of value to the client/community)
- What activities are **non-value added**? (i.e., activities that the client/community does not see as necessary and are unwilling to pay for, such as waiting to see a nurse)

You want to focus your improvement efforts on **eliminating non-value added** activities and **reducing non-value added but necessary** activities. In addition, for projects aimed at improving health outcomes or improving the process' effectiveness, you want to identify changes that will increase the **value added** nature of the process (e.g., adding an evidence-based component to your current process, such as incorporating a referral to an evidence-based smoking cessation program in a project aimed at improving care for diabetic patients). Do not put a "Band-Aid" on the problems, make sure to drill down to the root cause of the problem using the **5 Whys** or **fishbone diagram**.

#### *Identify and Prioritize Change Ideas*

As your team reviews the current state of your process, team members will begin to have improvement ideas (also referred to as starbursts). If your team has difficulty identifying improvement ideas, use the following tools to help generate ideas:

- Use the **general change concepts** list to help your team "think outside of the box" and generate specific ideas
- **Brainstorm or brainwrite** ideas and use an **affinity diagrams** to organize ideas
- Refer to the **8-Wastes Form** to identify potential change ideas for your process
- Identify **evidence-based and promising practices** (e.g., the open access scheduling change package from the Clinical Microsystems website, Bright Futures, 5As for smoking cessation, and ideas that other local health department and Division of Public Health teams have used)
- **Collect feedback from staff and clients** on ideas for improvement --usually those who are part of the process can identify innovative ways to improve

Many times your team will develop a long list of change ideas. Work with your team to prioritize the change ideas to work on first (e.g. changes that are easiest to implement and will have the largest benefits to the organization. You want to get "the biggest bang for your buck" and the "easy wins"! Use the **Impact Matrix** (e.g., *PACE chart*) or **Pareto Diagram** to help prioritize your changes ideas.

### **TEST CHANGE IDEAS**

**TEST, TEST, TEST** before you implement any change ideas on a large scale. Due to potential staff resistance, it's **important to test changes on a small scale** (e.g., one person, one form, one provider, one session, etc.) and under **different circumstances** before implementing the changes. To do this, use the **Plan-Do-Study-Act cycle** to help plan and carry out small tests for each change. As you test your changes, remember:

- Scale down the time period for testing --if you were originally thinking of testing for a month, think about weeks or days; if you were thinking about testing for days, think about hours or several clients/staff

- Include feedback from customers and staff when developing the tests of change
- Involve all stakeholders and inform staff that may be affected by the tests
- Test with volunteers or a “friendly audience” first
- Identify ways to collect useful data during each test to determine if it works and how it should be tweaked (e.g., observations and qualitative data from customers/staff implementing the change)
- Learn from failures as well as successes (Think about: Why didn’t the change work? Was the test conducted well? Does the change tested need to be modified?)
- Test over a wide range of conditions prior to implementing and spreading (e.g. , on busy days, with different staff, etc.)

## **SUSTAINING PROJECT IMPROVEMENTS**

Once you have tested and identified changes that successfully improve your process, it is important to sustain and hardwire them into your organization. There are five areas your team should focus on when sustaining your improvements:

- Involve and inform your senior leaders
- Assign ownership to an individual (i.e., QI Coordinator, team lead—there is not a right answer and may vary by project)
- Hardwire improvements by involving all staff (i.e., training for staff, job performance, hiring criteria, job descriptions, etc.)
- Communicate improvements to clients and allow them to create accountability
- Continuously measure and monitor results to ensure your new process is still working—you should reduce the amount of data you have been collecting and chose one or two overall measures that will give you a snap shot of the process

*\* The **sustainability checklist** and **process owner checklist** provides more detailed guidance in helping develop your sustainability plan.\**

## **SPREADING AND SUSTAINING QI WITHIN YOUR ORGANIZATION**

In addition, it is important to think about how to spread new concepts you have created during your project as well as how to begin to spread QI tools and methods to others in your organization. Your team should consider the following to increase the odds of spread:

- Identify the QI tools or new concept you want to spread and develop a “case” for why it should be used by others (include the results and stories)
- Ensure that senior management is supportive of spreading the QI tools or new concept
- Identify who you will spread the change to first (think about the “early adopters”—those most open to the change)
- Identify how the change will be communicated to others (e.g., through a training session, personal communications, mentoring, etc.)
- Identify who will be in charge of spreading the QI tool or new concept and what issues need to be addressed before spreading
- Identify how you are going to measure your spread efforts
- Identify and document lessons learned as you spread to the next groups

*\* The **spread checklist** provides more detailed guidance in helping develop your sustainability plan.\**