INTRODUCTION TO QUALITY IMPROVEMENT

PRESENTER’S GUIDE

NATIONAL ASSOCIATION FOR COUNTY AND CITY HEALTH OFFICIALS

NACCHO
National Association of County & City Health Officials
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INTRODUCTION
These materials are intended for LHOs to introduce the basics of QI to LHD staff. The information presented serves as a primer before delving into more in-depth information on how to use and apply QI in the agency. The following training materials have been designed so LHOs have to put minimal time into preparing training materials prior to presenting to their staff. This guide has been designed so that any LHO can pick it up and present the information as-is, or after tailoring it to more specifically meet local needs.

PREPARING FOR THE PRESENTATION
The following instructions serve as a general checklist to make sure you are prepared to present the PowerPoint presentations, either consolidated into one presentation or on their own:

1. **Insert your information** – the PowerPoint presentation contains a few slides with instructions for the presenter to insert information specific to their respective LHD. It is important to click through every slide and read through the provided instructions and talking points, in advance of giving the presentation, to ensure that all relevant information is provided.

2. **Print handouts for audience** – The presentations can be supplemented with handouts:
   a. **PowerPoint handouts** – although this is optional, participants often find it useful to have handouts of the slides for the purpose of taking notes during the presentation. To print the presentation in ‘Handouts’ view, follow these instructions:
      i. Open the PowerPoint and under the ‘File’ menu or on the ‘Microsoft’ icon at the top left corner (depending on your version of Windows), click ‘Print.’
      ii. Find the ‘Print What’ menu in the lower-left corner of the print dialogue box and select ‘Handouts Page’ from the drop-down menu. To the right of this drop-down menu, change the ‘Slides per page’ option to ‘3.’
      iii. To conserve paper, if you would like to print on both sides of the sheet, click on ‘Properties,’ select the ‘Finishing’ tab, and check the box next to the ‘Print on both sides’ option.
   b. **ABCs of PDCA paper** – this guide provides a comprehensive overview of how to move through a PDCA cycle. It draws on resources that are readily available to LHDs and provides a strong foundation for those just getting started with QI.
   c. **Storyboards** – these one page summaries provide excellent snapshots of QI projects. They illustrate examples of PDCA cycles that have been implemented in other LHDs.

3. **Documents for Presenting** – Print a copy of the following documents for assistance during the presentations:
   a. **PowerPoint Presentation in ‘Notes’ view** – this will allow you to flip through hard copies of the slides with all of the talking points provided directly under each slide. To print the presentation in ‘Notes’ view, follow these instructions:
      i. Open the PowerPoint and under the ‘File’ menu, click ‘Print.’
Find the ‘Print What’ menu in the lower-left corner of the print dialogue box and select ‘Notes Page’ from the drop-down menu.

To conserve paper, if you would like to print on both sides of the sheet, click on ‘Properties,’ select the ‘Finishing’ tab, and check the box next to the ‘Print on both sides’ option.

4. **Read script** – Prior to presenting any of these materials, it is strongly recommended to read through all of the slides and talking points. Feel free to make appropriate changes for your jurisdiction and to include additional thoughts you would like to share.

5. **Logistical preparations** – make sure to download the PowerPoint slides from the NACCHO website at [www.naccho.org/accreditation](http://www.naccho.org/accreditation) and arrange for a computer and projector to present the slides. If the technology is not available, consider distributing hard copies of the slides to the audience.

6. **Additional questions** – If there are additional questions while preparing for these presentations, contact Pooja Verma at pverma@naccho.org or (202) 507-4206.

**GIVING THE PRESENTATION**

The following section of this guide provides presenter instructions, talking points, and tips for presenting each slide. Included are specific instructions and talking points for every slide in the presentations. For the slides that include presenter instructions, it is important to follow those instructions and make the necessary changes to the PowerPoint files before presenting the information.

**Introduction to Quality Improvement**

- **Introduction (Slide 1)**

  **Presenter Instructions:**

  - Add your name, title, and LHD to the slide
  - If your LHD has a logo, include it on this slide. If you choose to do so, you can also add the logo to every slide in the presentation by following these steps:
    - Open the PowerPoint and click on ‘View’
    - Go to ‘Slide Master’ and insert the logo wherever you would like to position it throughout the presentation.
    - Close Slide Master and your logo should appear on every slide.

  **Talking points:**

  - *Introduce yourself and welcome your staff to the “Introduction to Quality Improvement” presentation.*
  - *Discuss with the staff the link between QI and accreditation.*

- **Why Quality Improvement (Slide 2)**

  **Talking points:**
• The Public Health Accreditation Board’s voluntary accreditation program for state, local, tribal and territorial health departments is based on quality improvement.
• Particularly important in tough economic times to demonstrate to our public that their investment in the work we do is a good one. QI offers a platform to demonstrate our commitment to ensuring high quality services.
• We know we’re good at what we do, and QI tools will help us quantify – show in numerical terms – that we are getting better all the time.

❖ Session Goal and Objectives (Slide 3)

Talking points:
• Review the slide with the audience

❖ Graphic (Slide 4)

Talking point:
• So let’s take a moment and talk about what IS quality improvement? What does it mean to improve? And what does QI NOT mean?

❖ Definition of QI in Public Health (Slide 5)

Talking points:
• Note those who signed on to this
• Emphasize that QI is an ongoing effort to achieve measurable improvements

❖ They are not the same: QA vs. QI (Slide 6)

Talking points:
• QA is reactive, going back to check on how things had been done. QI is proactive, thinking about ongoing processes in place and how to make measurable improvements.
• QA often results from regulation, while QI signals an agency’s desire to operate in a culture of always improving.
• Managers typically take the lead in QA, while QI deliberately involves staff at all levels.
• QA is done on a periodic, scheduled basis, while QI is an ongoing effort.
• QA operates on a pass/fail basis – either something was done correctly or not, while QI is all about exceeding expectations – always setting the bar higher.

❖ They are not the same: QI vs. Evaluation (Slide 7)

Talking points:
• Evaluation assesses a program at a moment, or moments, in time, and in a sense is static, while QI is dynamic, seeking to understands processes that are in place – e.g., the processes that support a program.
• Evaluation takes a snapshot, and when a problem area is identified it doesn’t go on to examine the problem or consider potential solutions. QI entails conducting an in-depth examination of the problem to uncover root causes, as well as to identify interventions specifically aimed at addressing the root cause.
• Evaluation might drive some changes in a program, but it does not include a method to measure improvements. QI is based on using data to both understand the baseline, and from that to measure, in quantifiable, numeric terms, any improvements that are achieved as a result of the interventions that are implemented. All improvement equals change, but change doesn’t necessarily equal improvement. QI ensures that you know whether the change you have made results in an improvement.
• Evaluation tends to be focused on a program, and QI is most often focused on the customer, or user, of a process.
• Evaluation is often a component of QI, but in and of itself, evaluation is NOT QI.

❖ Culture of Quality Improvement (Slide 8)

Talking points:
• It can be useful to think of QI work across a spectrum. At one end of the spectrum is organization-wide QI, or having a culture of QI throughout the health department. At the other end of the spectrum is engaging in QI in a specific program, or even project – just beginning to apply the QI process somewhere in the health department.
• A culture of QI is highly desirable, although it’s recognized that it’s important to start at the other end of the spectrum. And it’s fine to start small – in fact, it’s desirable to start small.
• Describe where your department is on the spectrum, and if appropriate, describe how you would like the department to progress towards an organization-wide approach to QI, or having a “QI culture”

❖ ABCs of PDCA (Slide 9)

Talking points:
• PDCA has been embraced by NACCHO because it is both simple and powerful.
• Simple because it’s a very basic, 4-phase cycle
• Powerful because it follows the scientific method of essentially understanding a problem, developing potential solutions, testing the solution and analyzing the results

❖ PDCA vs. PDSA (Slide 10)

Talking points:
• You may have heard PDCA, or PDSA. They’re the same thing, and arose from an issue of translation that occurred after the work had been introduced and refined in Japan. For our purposes, however, it’s essentially a matter of semantics.

❖ Continuous Quality Improvement (Slide 11)
Talking points:

- Emphasize the cyclical, iterative, ongoing nature of the PDCA cycle

Plan: Identify & Prioritize (Slide 12)

Talking points:

- The purpose of this phase is to investigate the current situation, fully understand the nature of any problem to be solved, and to develop potential solutions to the problem that will be tested.
- There are several steps involved in the “Plan” phase, and the first is to identify all of the opportunities for quality improvement, and prioritize them. We can’t do everything at once, and we have tools to help us, as a group, identify what needs to come first.

Plan: Develop an AIM Statement (Slide 13)

Talking points:

- An aim statement is essentially a specific, measurable objective, that answers the questions what, when, how much and for whom are we looking to improve?

Plan: Develop an AIM Statement (Slide 14)

Talking points:

- Statement 1 is fairly ambiguous. For example, what does “improve” mean? Who will be receiving the hearing tests? When is this improvement expected to occur? What specific measure will indicate success?
- Statement 2 answers these questions.
- When we get to this point, it will be important to construct an aim statement that is possible to achieve within our time frame. It may well go through many revisions as we proceed through our planning cycle and become more narrowly focused.

Plan: Describe the Current Process (Slide 15)

Talking points:

- Flowcharts are used to map the sequence of events in a process
- At its most basic level, a flowchart the beginning and end points, as well as tasks/activities and decision points
- Remember that a distinction between evaluation and QI is understanding and improving upon a process, to a flowchart is an important foundation to QI efforts
- I’ll share an example of a flowchart towards the end of the presentation

Plan: Collect Data (Slide 16)

Talking points:
• Data can take many forms. The important thing in this step is to carefully consider the measurable objective we set in the aim statement. We need to ensure that we can measure any improvements, and therefore we need to think carefully about baseline data. For example, if we’re seeking to improve the number of adults who receive an annual influenza vaccine, we’d need to know the percentage of adults who received it this year.

Plan: Identify All Possible Causes (Slide 17)

Talking points:
• This is a critical step in quality improvement – one where we will carefully examine the problem we choose and identify the root cause. Another name for this step is to conduct a root cause analysis. A popular tool for this step is the use of a cause-and-effect diagram, also known as a fishbone diagram, and I’ll show an example towards the end.

Plan: Identify Potential Improvements (Slide 18)

Talking points:
• Once we’ve identified the root cause, it’s time to determine what interventions to test – what improvement or improvements to try out. We’ll come up with improvements, and consider their costs and impacts. We’ll also think about what could go wrong, and countermeasures we can take to minimize problems and maximize our chance of success.

Plan: Develop and Improvement Theory (Slide 19)

Talking points:
• An improvement theory is simply an “If....then...” statement that summarizes the effect of our intervention on the problem we are seeking to address. It’s essentially the hypothesis that is guiding our improvement work, and crystallizes what we’ve decided to do as a result of our planning phase.

Plan: Develop an Action Plan (Slide 20)

Talking points:
• The final step in our planning is to develop an action plan. We will identify specific tasks, timelines, and lead staff to ensure that our test is on schedule and can run according to plan. We can use a Gantt chart (or other planning tool) for this purpose.

Do (Slide 21)

Talking points:
• The “Do” phase is as it sounds – just do it! This marks the implementation of the improvement, and during this phase it’s important to not only collect and document data around the
improvement, but also to document the other things listed. QI efforts generate many learnings and it’s important to capture these.

- **Check (Slide 22)**
  
  *Talking points:*
  
  - This phase involves analyzing the effect of the intervention.
  - Compare the new data to the baseline data to determine whether an improvement was achieved, and whether the measures in the aim statement were met.
  - And again – document!

- **Act (Slide 23)**
  
  *Talking points:*
  
  - This phase marks the culmination of the planning, testing, and analysis regarding whether the desired improvement was achieved as articulated in the aim statement, and the purpose is to act upon what has been learned.
  - If the improvement was achieved, it’s time to adopt it as standard practice.
  - If the improvement wasn’t quite achieved, but we feel it was close, we will adapt our “test,” and either extend the testing period or revise something and repeat the testing cycle.
  - If the improvement simply wasn’t achieved, we need to start back at the planning phase and reconsider the problem at hand.
  - Once we have adopted and standardized the improvement, we still need to monitor the situation and make sure the improvement holds.

- **QI Myths & Truths (Slide 24)**
  
  *Talking points:*
  
  - Many people are concerned that because QI involves candid discussions about what’s NOT working, that it’s intended to weed out the bad apples or the poor employees. That simply isn’t so. It’s about understanding what’s not working in a process and fixing that – with a focus on measurable improvement.

- **QI Myths & Truths (Slide 25)**
  
  *Talking points:*
  
  - Some people think that they have failed if they don’t achieve their aim statement. This simply isn’t so. It’s much better to test and intervention and find out that it doesn’t result in an improvement, than it is to adopt an intervention without testing it – think of the wasted resources that could be involved with making a change if that change doesn’t lead to an improvement. Which leads us to the final myth...

- **QI Myths & Truths (Slide 26)**
  
  *Talking points:*

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• All change simply doesn’t equate with improvement. In fact, some changes lead to quite the opposite. On the other hand, improvement IS about change. Even though it’s change for the better, change can be very challenging for all of us. So even if we know we’re doing good things, better things, we need to understand that change is involved, and while it’s exciting, at times it might be uncomfortable.

Questions? (Slide 27)

Talking points:

• Before walking through an example of a PDCA cycle in public health, are there any questions?

Reducing Early Syphilis Cases (Slide 28)

Talking points:

• Between 2004 and 2005, the Orange County Health Department (OCHD) saw a sharp increase (45%) in new early Syphilis cases in its jurisdiction, from 136 cases per year to 195 cases per year. Following a trend that was seen nationwide, these new Syphilis cases were mostly seen in the MSM (men who have sex with men) population. Based on the accelerating rate of increase per year since 2001, the STD team knew that Syphilis would grow into a larger epidemic if not rapidly controlled. With this baseline data in hand, they developed the aim statement that you see on the screen.

Sample Process Map (Slide 29)

Talking points:

• There are 6 major processes involved in field blood draws: preparation, acquiring vehicle, field work, field recording, blood handling, and post-test procedures. This is the process map involved in the preparation phase, that begins with “Meet with supervisor to identify location to draw blood, and ends with “Go to vehicle.”
• (This is a very detailed process map. We may end up with something this detailed, or we may map a process at a higher level, with only 6-8 steps involved.)
• Examination of the current process for doing blood draws revealed areas of inconsistent DIS practices and inefficiencies in the way the process was currently carried out. The DIS field preparation process took too much time—estimated as much as two hours each time. The two areas that consumed the most time for field preparation were getting the key to unlock the supply cabinet and getting permission to use a vehicle (involving several permission steps).

Cause and Effect Diagram (Slide 30)

Talking points:

• Here is a fishbone diagram. The team brainstormed about problems leading to increasing early syphilis in Orange County. They looked at problems in the categories of methods, environment, materials, and people (both personnel and clients). After conducting this initial root cause analysis, it was discovered that an overlapping issue in various categories was high staff
turnover. By delving deeper into the issue, the team concluded that staff turnover affected their performance indicators. The rate of turnover for Disease Intervention Specialist (DIS) workers was high at this health department, where the average length of stay for DIS new employees was six months or less. As one QI team member noted, “The contact index relies on information provided from clients, and this is where the experience of DIS workers helps in pushing the contact index up...It takes some time and exposure to develop these relations with clients.”

- **Initial Fishbone Diagram for Staff Turnover (Slide 31)**
  
  **Talking points:**
  
  - The team did another fishbone diagram looking at the reasons for staff turnover, locating most of problems in four main areas:
    1. Lack of training
    2. Low morale
    3. Office environment (including space and interpersonal issues)
    4. Lack of good candidates

- **Sample from Action Register (Slide 32)**
  
  **Talking points:**
  
  - They identified a series of interventions to address these areas, and on the screen is a sample from their action plan, targeting the problem are regarding a lack of good candidates. You can see that they’ve articulated the task, the lead staff, and a due date.

- **Total Reported Early Syphilis Cases (Slide 33)**
  
  **Talking points:**
  
  - By the end of the nine month project, new early syphilis cases leveled off and began to decline. During the same period, syphilis increased in Florida peer counties.
  - **Secondary Effects of QI Effort:** In addition to advances made in the major indicator the team also reported the following successes, which grew out of the QI initiative:
    - **Stopped DIS staff turnover (a root cause)**
      - Zero DIS left the unit in the first half of 2006; 6 left in 2005
      - Fully staffed for the first time in group memory
    - **Improved morale and teamwork**
      - Increased job satisfaction: STD employee satisfaction surveys show an 18% increase in 2006 compared to the last survey in 2004 (significant at the p=.05 level)
    - **More cohesiveness and trust in team**
      - Better morale and teamwork translated into a better ability to work with the community

- **Next Steps (Slide 34)**

  **Presenter Instructions:**
  
  - Insert the next steps your LHD will take in QI
Talking points:

- Review the next steps the LHD will take in QI

WRAPPING UP – POST PRESENTATION INSTRUCTIONS

To ensure that NACCHO is providing useful and practical resources to LHOs in informing LHD staff regarding QI efforts, please take a moment to provide feedback on how these materials can be improved at the following URL: http://www.naccho.org/topics/infrastructure/accreditation/quality.cfm. Your feedback will be completely anonymous and will be aggregated to assess the usefulness of these materials. Providing timely feedback will allow NACCHO to continuously improve these materials to best serve your needs.

We hope that these materials have been useful in informing your LGE! Feel free to contact Pooja Verma at pverma@naccho.org or (202) 507-4206 with any questions or comments.