Introduction to Quality Improvement for Community Health Care Workers: Module 2

Identifying causes using "5 Whys," generate ideas for improvements using brainstorming, testing changes using PDSA cycles, creating job aids to implement changes

INSTRUCTOR'S GUIDE

TIME

- Pre-session preparation for trainer: 30 minutes
- Session: 120 minutes

OBJECTIVES

After completing this module, learners will be able to:

1. Use the 5 Whys to analyze the root cause of a personal quality issue.
2. Hold a brainstorming session to generate possible solutions.
3. Describe steps one through six of the QI journeys.

EXERCISE AND ACTIVITIES TO COMPLETE BEFORE AND DURING THE SESSION

Pre-session preparation for trainer:

1. DETERMINE LOCATION: Determine if training is in person or virtual and prepare for the room or platform.

2. SET UP ROOM/VIDEO PLATFORM:

   A. Room:

   - Set chairs in a semi-circle
   - Prepare the screen to project video and slides
   - Prepare snacks and beverages
   - Cue up the video and PPT for the session

   B. Platform:

- Deliver the orientation to participants, including how to change their name, raise their hand, and use emojis
- Utilize the notetaking/whiteboard function
- Cue up the video and PPT for the session

3. REVIEW CONMTENT OF MODULE:

A. You can use the narrative for this module as a "script" or as a guide/set of suggestions.
B. The corresponding slide for each section of the narrative is provided in parentheses next to the header for that section.

4. PREPARE MATERIALS

A. Download the accompanying PPT and make any modifications you want for your session
B. Prepare printed (or an online location for download by learners) copies of:

    a. The QI journey
    b. The QI goal worksheet
    c. The process map worksheet
    d. The QI project homework packet

C. Prepare any job aids or handouts for learners to take home via printed copy, email, or text message

During the session

1. Present concepts from the module along with PPT. Read the text directly or use it as a guide
2. Respect, recognize, and engage the expertise of your CHW learners
3. Incorporate participation and adult learning methods in your delivery of the modules (see companion PF module). Adult learners:

- Are internally motivated and self-directed and adult education should focus on creating empowered, perpetual learners.
- Bring life experience and knowledge to learning.
- Are goal-oriented, relevancy-oriented, practical, and collaborative. The teacher does not need to be the "expert" with all the answers and leadership roles can be assumed by different people at different times, and content and sequence negotiated among the learners.
- Like to be respected.

Reflection and evaluation questions:

1. What did you learn today that you think will be helpful to you at your practice?
2. How much do you feel this session increased your knowledge about quality improvement?
3. How satisfied are you with this session today?
4. What was the most helpful part of the session for you today?
5. What is one thing we can change to make this session more helpful next time?

Supplemental Resources for Learners

- The 5 Whys (and fishbone diagramming) fhttps://www.ahrq.gov/sites/default/files/wysiwyg/ncepcr/resources/job-aid-5-whys.pdf

MODULE 2 OUTLINE

Module 2

Welcome to Module 2 (Slide 1)

Welcome to Module 2 of Quality Improvement 101 for Community Health Workers!

(OPTIONAL) Review of Module 1 (Slides 2–10)

In the first module, you learned:

- Ways community health workers (CHWs) can help the practices where they work with quality improvement (QI)
- About the six steps of the QI journey
- How to create a QI goal
- How to create a process map

Your QI Toolbox (Slide 11)

You have two great QI tools in your toolbox already:

1. Creating a QI goal
2. Creating a process map

Adding Two More Tools (Slide 12)

Today you will be adding two more:

1. Using the 5 Whys to find the root cause of your quality problem
2. Brainstorming to come up with solutions

Learning Objectives for Module 2 (Slide 13)

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

- Use a QI tool called the "5 Whys" to find the root cause of a quality issue.
- Use a technique called brainstorming to generate ideas for solutions to a quality issue.
- Describe what happens at each of six stops of the QI journey.

Homework Review (Slide 14)

First, let's review your homework—your personal QI project.

Please take out your worksheet

Volunteer (5 min)

Who will volunteer to tell us about their project?

What was the quality issue you wanted to fix?

What is the QI goal you created? (Slide 15)

Share the process map you created for your homework on the board/flip chart.

Additional Volunteers (5 min)

💬 *Would anyone else like to share their project?*

💬 *Repeat questions from above.*

Group Discussion (10 min) (Slide 16)

💬 *Let's open it up to the group now.*

💬 *What was the most important thing you learned from doing this homework?*

💬 *What was your biggest challenge doing this homework?*

💬 *What questions do you have after doing it?*

✋ Create a "parking lot" list of questions on the board or flip chart to answer/address later.

Step 3 On the QI journey: Find the Root Cause (Slide 17)

So we've reviewed steps 1 and 2 on the QI journey, now let's look at step 3.

What Is a Root Cause? (Slide 18)

Every quality issue is like a tree. It has a set of "roots" underneath it that make it grow and keep it in place.

If we don't identify the root of the issue and deal with it, the issue will keep popping back up.

This is a lot like when you pull weeds. (Slide 19)

If you only pull the top of the weed out but not the roots, it grows back!

Quality problems are the same.

If you don't identify the root of the problem and address it, the issue will keep popping back up, just like weeds in your garden.

A QI Tool: The 5 Whys (Slide 20)

The "5 Whys" is a simple tool for helping you find the root cause of quality issue you are working to fix.

Some QI experts believe you can identify the root cause of most quality problems by asking, "Why?" five times.

To do a 5 Whys analysis:

First, you write down the problem you are trying to solve.

Next, you write down **one reason** you think this problem is happening. There may be many reasons contributing to the problem you are trying to solve. Pick the one you think is the most important to start.

Finally, you ask, "Why is this happening?" and write down your answer. Ask, "Why is this happening?" about the answer you just wrote down, and so on.

You keep doing this until you get to something you think is the "root" of the problem. If this ends up being a person or something else unchangeable, it is not the root.

Rules for the 5 Whys

Rules:

1) Be as specific and real/factual as possible with your answer to the first, "Why?"

2) Know when to stop. Keep asking, "Why?" until the responses aren't useful and you can't go any further.

3) If there is more than one reason for the problem, do the 5 Whys for each reason.

4) The root cause should not be a person or personality. It must be a process or something you are able to change.

5) Don't stop at number 5 if you haven't found your root cause yet. Ask, "Why?" as many times as you need to.

An Example: Janice has a Flat Tire (Slide 21)

Janice is a 35-year-old mother who works at a fast-food restaurant. She lives in a home with her family that has a garage where she parks her car.

On Monday, she had a flat tire on her way to work. This created a big problem for her. She had to take the bus and was late to work, which got her in trouble with her boss.

That night when she got home, she wanted to make sure this never happened again.

Janice is trained in QI and decides to use the 5 Whys to find the root cause of her flat tire.

She states her problem: I got a flat tire.

Then she asks, "Why?" five times to discover the root cause of her problem.

    1) **Why did this happen?**

        I ran over a nail.

2) Why did this happen?

There were nails on the floor of my garage.

3) Why did this happen?

The cardboard box holding the nails broke and nails spilled out.

4) Why did this happen?

The box got wet and the cardboard collapsed.

5) Why did this happen?

It rained and the garage roof has a leak that dripped water on the box.

Janice is surprised. She thought the root cause of her problem was the nails on the garage floor.

But by doing the 5 Whys, she learns that the leak in her garage roof is the actual **root cause** for her flat tire.

If Janice had not analyzed her problem to find it's root cause, she would have decided to pick up the nails on the floor and fixed the problem temporarily. But the same event would have happened next time it rained.

The root cause of her problem was the leak in the garage roof!

CREDIT: Source of the story: cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fivewhys.pdf

Knowing When to Stop Asking, "Why?" (Slide 22)

Janice could have kept going and asked more "whys," but she used the rules for the 5 Whys to know when to stop.

Remember rule 4: The root cause cannot be a person or personality or something unchangeable. It must be a process or something you are able to change.

When she asked her 6th "Why?" she realized rain isn't something changeable.

So she stopped. The root cause for her problem was the leak in her garage roof.

Exercise: Do your own "5 Whys" with your personal QI project (Slide 23)

Now it's your turn to try The 5 Whys.

Complete the 5 Whys Worksheet

Pass out page 2 of the personal QI project workbook or direct the learners to the digital document.

Do the 5 Whys on your own QI project using the diagram on page 2 of your workbook.

Write down your problem.

Ask, "Why?" as many times as you need to find the root cause.

Volunteer Report Out

Will someone volunteer to share their 5 Whys exercise and the root cause they discovered?

What was your problem?

Walk us through each question and answer to the root cause you discovered.

Group Discussion (5–10 minutes)

What did you learn from this exercise?

What challenges did you encounter?

What questions do you have?

Step 4 on the QI Journey: Generate Solutions to Test (Slide 24)

Once you've identified the root cause of your quality issue, you are ready to design a solution to your problem and test it.

In QI, we come up with ideas for solutions in several ways.

Collaborative and Independent Thinking (Slide 25)

- We can think about the solution on our own.
- We talk to other people and come up with ideas together.

We can do this informally at meetings, during breaks, or use a structured process like brainstorming.

Brainstorming is a fun process where everyone tosses out ideas they have even if they are wild and crazy. No one can comment or criticize any idea. The idea is to generate as many ideas as possible and to encourage people to be creative and feel safe sharing their ideas.

Study Exemplars (Slide 26)

Another way we can generate ideas for solutions is by looking at exemplars.

This is another vocabulary term you may hear in QI.

Exemplars are people we can learn from because they have already solved the same problem we are working on.

Looking to exemplars is a great way to come up with solutions because they are an expert who is already doing things well. This can save us a lot of time.

We get to learn from an **exemplar** by using their experience and knowledge to help us make improvements to work we are doing that is similar.

We use exemplars all the time in our own lives. For example, if you are a soccer player, you might watch players who are better than you to see what you can learn. Or, you could even take classes from a better player so they can teach you what they know.

Often, we personally know who the exemplars are with the problem we are trying to solve. If we don't, one way to find them is to ask your colleagues:

- "Who do you know in our organization/practice/community that is already doing this really well?"
- "Who do you know in our organization/practice/community that has already solved this problem?"

Sometimes we forget to look for exemplars and instead assume we have to make something up on our own. But finding exemplars is one of the very best ways to come up with improvement ideas.

Almost always, someone in your organization, practice, or community has already figured out a great way of doing something—all we have to do is remember to look for them and learn from them.

Ideas in Research and Reports (Slide 27)

Another way we can come up with ideas for solutions is by reading research and reports.

These are things written by people who are studying the issue you are trying to fix or improve, or who are experts in it themselves and have collected their ideas in a report.

You can find these by:

- Searching the internet
- Asking someone doing research
- Asking an organizational partner like a university

It's important to pay attention to where the report has come from. A lot of people put things in writing and publish reports that aren't exemplars, so you always want to check the source. This means to make sure the person who is writing it or publishing the report is really an expert in the topic and they aren't writing the report to sell something.

Finally, another great way to come up with solutions is by asking CHWs!

CHWs Have Great Solutions (Slide 28)

CHWs have:

- A deep understanding of the patients and their experiences with health and your organization
- Their own experience
- A deep understanding of the community's needs, strengths, and preferences
- Can come up with **great and creative solutions no one else would think of!**

Example of a CHW's Great Idea (Slide 29)

Nancy is a CHW who works at Happy Family Practice.

Only 1 out of 10 of their patients with diabetes is getting their annual eye exam. Clinicians and staff at the practice, including Nancy, are very worried about this.

From talking to patients and from her own experience, Nancy knows the reason patients are not getting exams is because they say they are "seeing just fine" and don't feel they need to go.

But Nancy understands it is very important they go for other reasons, such as to be screened for diabetes-related retinopathy which is a leading cause of blindness.

CHW Nancy Creates a Script (Slide 30)

Nancy tells the medical director at her practice she has an idea.

She suggests that staff and clinicians tell patients a story that will help them understand why getting an exam is important.

They use the example of tree roots that grow under sidewalks and break the concrete. This is similar to what can happen in their eyes when they have diabetes. Their blood vessels can grow like the tree roots did under the sidewalk and hurt their eyes. This is why it's important to get an eye exam to make sure this isn't happening.

The medical director is very excited to hear this idea—she or other doctors at the practice would never have thought of it and they decide to try it!

How to Run a Brainstorming Session (Slide 31)

Brainstorming is fun and simple.

Let's take a minute to learn how to run a brainstorming session so you can do it with your colleagues at your organization or practice.

You can brainstorm by yourself, with one other person, or with a group.

Steps for holding a Brainstorming Session! (Slide 32)

1) **Identify the facilitator** for the session (you?).

2) Set aside **30 minutes to an hour**.

3) **Write the rules for brainstorming on the board** and teach them to the group. Remind the group of the rules if they break them.

4) **Write people's ideas down** on board/paper using **exactly** the same words they use. Do not edit or change what they say.

After the session is over, schedule a follow-up meeting to review each of the ideas with the group and select ones to test. NEVER DO THIS DURING THE ACTUAL BRAINSTORMING SESSION.

Rules for Brainstorming (Slide 33)

1. No criticism or correction of any idea—**this is the most important rule**!

2. Come up with as many ideas as possible. It doesn't matter how good the ideas are.

3. Build on and add to each other's ideas. Let other people's ideas inspire you.

4. Encourage wild and exaggerated ideas. You want people to be free to be creative. In brainstorming, you want everyone to share their crazy and wild ideas. This helps the group think of new solutions.

(Source: ahrq.gov/downloads/ncepcr/pf-modules/meetings/story_content/external_files/Job%20Aid_Effective%20Meetings.pdf)

Optional Exercise: Hold a Brainstorming Session

Let's experience a brainstorming session.

Break into groups of 7–10 people.

I need one volunteer from each group to share the personal QI problem from your homework you are trying to solve.

Group 1: What is the problem you are going to brainstorm solutions for?

Group 2: What is the problem you are going to brainstorm solutions for?

And I need one volunteer from each group to serve as the facilitator

Facilitator, your job is to write down the ideas people share and to remind your group of the brainstorming rules if they break them. For example, if you see someone starting to correct an idea, you can say, "Just a minute everyone, remember the brainstorming rule: No criticism or correction."

Use the slide displayed on the screen to remember the brainstorming rules.

Activity (10 minutes)

You have 10 minutes to come up with as many ideas as you can, no matter how wild.

At 7 minutes, give a 3-minute warning.

💬 *"You have 3 minutes left."*

At 10 minutes, stop the groups and debrief.

💬 The person who provided their problem for the group to brainstorm, what was that experience like for you?

💬 The person who served as facilitator, how did your group do with the rules?

💬 Everyone, what did you learn from this experience?

Step 5 on the QI Journey: Select the Best Idea and Test It (Slide 34)

Selecting a Solution to Try (Slide 35)

Now that you've come up with some changes to test, the next step in the QI process is to select the best idea to try and test it to see if it solves the quality issue.

Practices and organizations do this in several ways.

Make a list of all the ideas being considered.

Evaluate each one using questions like these:

1. Will this change address the root cause?
2. Is this change feasible (cost, time, effort, training)?
3. Will it negatively impact staff morale?
4. Will it negatively impact patient experience?
5. Will it negatively impact quality of care?

Discuss and decide on the first one to test.

Doing Small Tests of Change (Slide 36)

On our QI journey, the next step is to test the change to see if it works and will let us accomplish our QI goal.

To do this, we use "small" tests of change.

This means we test with just one or two staff members, patients, doctors, or customers.

Small tests let us ensure the solution works before everyone starts using it.

It also gives us a chance to make adjustments to the change or perfect it before we spread it to everyone.

Vocabulary: Plan Do Study Act Cycles (Slide 37)

In primary care practices, QI teams call these small tests of a change, Plan Do Study Act Cycles, or PDSAs. This is another QI vocabulary word for you.

We do these PDSA cycles until we are sure the change works or we are sure it doesn't and decide to test another idea.

Example of a Small Test of Change (Slide 38)

CHW Nancy's practice decides to test her tree and sidewalk story with their patients to see if it increases the number of those who get their annual eye exam.

First Small Test of Change

They start with a first small test of the change.

Dr. Hernandez conducts a small test of change using Nancy's script with three of his patients with diabetes the next day.

He and the team studied what happened. They find:

Patients:

- Like the story
- Understand why eye exams are important
- Plan to schedule an eye exam

Dr. Hernandez:

- Learned it takes too much time for him to do during the patient visit

Second Small Test of Change (Slide 39)

Based on this learning, the team makes adjustments to the change.

They decide the CHWs would have time to share the sidewalk story with patients when they meet with them to discuss diabetes self-management.

Nancy uses it with five of her patients.

Again, the team studies what happened. They find:

Patients:

- Like the story
- Now understand why eye exams are important
- Plan to schedule an eye exam
- Want a list of places to get an eye exam

CHW Nancy:

- Found it easy to fit into her visit with the patients
- Patients what a list of places to get an eye exam

Third Small Test of Change (Slide 40)

Based on this learning, the team makes a handout with a list of places to get eye exams and add that to the change.

They run a third SMALL test of change. This time, all three CHWs who work at the practice tell the story to every patient they see that week.

Step 6 on the QI Journey: Implement the Solution (Slide 41)

The final step in the QI journey is implementing the tested solution and using it for a long time.

Ways to Implement Changes (Slide 42)

Implementing the solution or change means getting everyone in the organization or practice to change what they are doing and start using the new tested solution.

There are several ways to implement a new solution:

- Training & job aids
- Reminders
- Feedback on how often they are using the new solution vs. the old way

Training & Job Aids (Slide 43)

Trainings can be done in groups or one-on-one. It works best if the people involved in testing the change are the ones who do the training so they can share their experiences.

Job aids are step-by-step instruction sheets people can follow that show them how to do a new process or activity.

Reminders (Slide 44)

Reminders can help people remember to do the "new thing" and stop doing the "old thing."

These reminders can be posters on the wall, alerts that pop-up on the computer or in practices' EHR systems, or repeated trainings.

Feedback (Slide 45)

Another way to help people adopt a new way of doing things is to give performance feedback.

How often are they using the new solution vs. the old way of doing things?

Give feedback daily or weekly at the start.

Implementing the New Eye Exam Script (Slide 46)

To implement the sidewalk story at Happy Family Practice, the QI team decides to use:

- Training
- Performance feedback

The practice manager:

- Scheduled a **one-hour training** for CHWs
- Posted a performance report on the "data wall" each week

Never Forget to CELEBRATE Wins (Slide 47)

AND finally…

Never forget to CELEBRATE Wins!

Celebrating wins and thanking people for their hard work creates a positive culture AND helps people implement new solutions!

The medical director held a pizza party for the CHWs when all patients with type 2 diabetes in a week heard the sidewalk story.

The 4 Tools in Your Toolbox! (slide 48)

- Creating a QI Question - Module 1
- Creating a process Map – Module 1
- Brainstorming – Module 2
- Using the 5 Whys to find root causes – Module 2

Homework (Slide 49)

✋ Hand out the rest of Personal QI Project Workbook.

For your homework, complete your Personal QI Project Workbook using what you learned today.

Reflection: Did we achieve the learning objectives? (Slide 50)

In a quality culture, we are always improving. We want to improve this module too and would like your feedback.

Let's take a few minutes before we close to reflect on and evaluate what you've learned and what we can do to improve the module.

First, let's see if we met the learning objectives for this module.

Learning Objective 1 (Slide 51)

Can you use the 5 Whys to analyze the root cause of a quality issue?

Review. The 5 Whys tool for finding the "root cause" of a quality issue (Slide 52)

Did we accomplish Learning Objective 1?

Invite reaction and discussion by learners

Learning Objective 2 (Slide 53)

Can you hold a brainstorming session to generate solutions to test?

Review: Brainstorming Rules (Slide 54)

Did we accomplish learning objective 2?

Invite reaction and discussion by learners.

Learning Objective 3 (Slide 55)

Can you describe each of the six steps of the QI journey?

Review: The 6 Steps of the QI Journey (Slide 56)

Did we accomplish learning objective 3?

Invite reaction and discussion by learners.

Evaluation (Slides 57–58)

A. How much did this session increase your knowledge about QI?
B. How satisfied are you with this session today?

C. What was the most helpful part of the session for you today?

D. What is one thing we can change to make this session more helpful next time?

Participant Evaluation (Slide 59)

Please use the QR code to open your participant evaluation