**Module 2. Quality Improvement 101 for Community Health Workers**

**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 solutions to try
3. describe steps 1-6 of the QI journey

EXERCISE AND ACTIVITIES TO COMPLETE BEFORE AND DURING THE SESSION

Pre-session preparation for Trainer.

1. Determine if training is in-person or virtual and make preparations re: room set-up or platform

A. Room:

* Chairs in a semi-circle
* Screen to project video and slides
* Snacks and beverages
* Cue up the video and PPT for the session

B. Platform:

* Orientation to participants - how to change their name, raise their hand, use emojis
* Note-taking/whiteboard function
* Cue up the video and PPT for the session

2. Review the content of this module

3. Gather materials

1. Download the accompanying PPT and make any changes you need for your session
2. Prepare printed copies of the homework worksheet on pages 2 and 3
3. Prepare any job aids or handouts for learners to take home via printed copy or emailed/SMS PDF

During the session for the Trainer

1. Present concepts from the module along with PPT. Read the text directly or use it as a guide.
2. Incorporate participation and adult learning methods in your delivery of the modules (See companion PF Module:
* adults 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;
* are relevancy-oriented;
* are practical;
* like to be respected;
* adult learning is a collaborative activity -the teacher does not need to be the “expert” with all the answers, leadership roles can be assumed by different people at different times, and content and sequence negotiated among the learners.

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?
What was the most helpful part of the session for you today?
4. 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)

https://www.ahrq.gov/downloads/ncepcr/pf-modules/5-whys/story.html

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**Module 2.**

# Welcome to Module 2 (Slide 1)

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

### (OPTIONAL) REVIEW of what we learned in Module 1 (Slides 2 -9)

In the first module, you learned:

* ways CHWs can help the practices where they work with quality improvement
* about the six steps of the quality improvement journey
* how to create a QI goal, and
* how to create a process map

### Your QI toolbox (Slide 10)

You have two great QI tools in your toolbox already: creating a QI goal, and creating a process map

### Adding two more tools today (Slide 11)

Today you will be adding 2 more: using the 5 Whys to find the “root” of your quality problem, and “brainstorming” to come up with solutions to try.

# Learning Objectives for Module 2 (Slide 12)

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 6 stops of the QI journey

# Homework review (Slide 13)

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 quality improvement goal you created? (Slide 14)*

*Share the process map you created for your homework on the whiteboard/flip chart*

### Additional volunteers (5 min)

*Would anyone else like to share their project?*

*Repeat questions from above*

### Group discussion: (10 min) (Slide 15)

*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 white board or flip chart to answer/address later*

# Step 3 on the QI journey: Find the Root Cause (Slide 16)

So we’ve reviewed Steps 1 and 2 on the quality improvement journey, now lets look Step 3 on this journey.

### What is a root cause? (Slide 17)

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, then the issue will keep popping back up.

### This is a lot like when you pull weeds. (Slide 18)

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 you can use to identify root causes: The 5 Whys (Slide 19)

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 that you can identify the root cause of most quality problems by asking “Why” 5 times.

To do a 5 Whys analysis:

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

Next, you writedown **one reason** you think this problem is happening. There may be many reasons that contribute 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, and then ask “Why is this happening” about the answer you just wrote down. And then write that answer down, and then ask “Why is this happening” and write that down.

You keep doing this until you get to something that you think is the “root” of the problem -and that is also something you can change.

### The 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)**The number “5” isn’t magic, ask the question Why as many times as you need to.

## An example of the 5 Whys: 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 and she parks her car in the garage.

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 and this got her in trouble with her boss.

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

Janice is trained in QI and decides to use Th 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 the box get wet?**

It rained and the garage roof has a leak that is dripping 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 problem would have happened again next time it rained.

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

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

### Knowing when to stop asking Why? (Slide 21)

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

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 22)

Now it’s your turn to try The 5 Whys.

### Complete 5 Whys worksheet

**Pass out page #2 of the personal QI project workbook/or direct learner to digital document if training is virtual

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

**Write down your problem

**Then 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 23)

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.

### Think about ourselves & Discuss with others (Slide 24)

* We can think about it on our own.
* We talk to other people and come up with ideas together.

We can do this informally at meetings or even 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 25)

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

This is another vocabulary term you may hear in QI - “**exemplars.”**

These are people who have already solved the same problem we are trying to solve really well and we can learn from them and copy what they do.

Using exemplars is a great way to come up with solutions. It means we learn from an expert – from someone who is already doing things really well. This saves us a lot of time.

We get to learn from the **exemplar** and use 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 they are to see what they can learn. Or even take classes from a better player to have them teach you what they know.

Often we 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 then learn from them.

### Look for ideas in research and reports (Slide 26)

* 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 written down 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 so you always want to ‘check the source’ – meaning make sure that the person who is writing it or publishing the report really is an expert in the topic and that they aren’t just writing the report to sell something.

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

### CHWs have great ideas for solutions that no one else would think of (Slide 27)

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

And can come up **with great and creative solutions no one else would think of!**

### Example of a great idea from a CHW: Increasing eye exams (Slide 28)

Nancy is a CHW who works at Happy Family Practice.

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

So is CHW Nancy.

From talking to patients and from her own experience, Nancy knows that the reason patients are not going to get exams is because they say they are “seeing just fine” and so don’t feel they need to go.

But Nancy understands that it is very important they go for other reasons. That diabetes can cause diabetic retinopathy, and that can cause blindness.

### CHW Nancy creates a script and shares it with her medical director (Slide 29)

She 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.

She suggests they use the example of tree roots that grow under sidewalks and break the concrete. And then share how this is similar to what can happen in their eyes when they have diabetes -that their blood vessels can grow like the tree roots did under the sidewalk and hurt their eyes. So they need to get an eye exam to make sure this isn’t happening.

The medical director is very excited to hear this idea. This is an idea she or other doctors at the practice would never have thought of. They decide to try it!

### How to run a brainstorming session (Slide 30)

Brainstorming is fun and simple to do.

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 even practice. Brainstorming is simple and also fun to do.

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

Steps for a brainstorming session are:

1. **Identify the facilitator** for the session (You?)
2. Set aside time: from **30 minutes to an hour**.
3. **Write the rules for brainstorming up on the board** and teach them to the group. Remind group of 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 w/ the group and select ones to test. NEVER DO THIS DURING THE ACTUAL BRAINSTORMING SESSION

### Rules for brainstorming (Slide 31)

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. You want as many ideas as possible.
3. Build on and add to each other’s ideas – let other people’s ideas inspire you and add to them, build on them.
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 up new solutions.

(Source: https://www.ahrq.gov/downloads/ncepcr/pf-modules/meetings/story\_content/external\_files/Job%20Aid\_Effective%20Meetings.pdf)

### Optional Exercise: Hold a brainstorming session (Slide 32)

**Let’s experience a brainstorming session.

**Break into groups (7-10 people)

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

*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 3 minutes 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 33)

### Selecting a solution to try (Slide 34)

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 then 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 35)

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 people, patients, doctors or customers.

Small tests let us be sure the solution works before we have everyone start using it.

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

### Vocabulary: Plan Do Study Act Cycles (Slide 36)

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 small tests of or 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 at CHW Nancy’s practice (Slide 37)

CHWs Nancy’s practice decides to test her tree and sidewalk story with their patients to see if it increases the number of patients 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 CHW Nancy’s script with 3 of his patients with diabetes the next day patients.

He and the team then “study” what happened. They find:

Patients:

* like the story.
* say they now understand why eye exams are important
* say they plan to get one

Dr. Hernandez:

* learned it takes too much time for him to do during the patient visit

### Second small test of change (Slide 38)

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.

CHW Nancy uses it with 5 of her patients.

Again, the team studies what happened. They find:

Patients:

* like the story.
* say they now understand why eye exams are important
* say they plan to get one

CHW Nancy:

* found it easy to fit into her visit with the patients
* patients would like a list of places to go to for an eye exam

### Third small test of change (Slide 39)

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 3rd SMALL test of change. This time all 3 CHWs who work at the practice use with every patient they see that week.

# Step 6 on the QI Journey. Implement the solution and keep it going (Slide 40)

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

### Ways to implement changes (Slide 41)

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 42)

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 also.

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

### Reminders (Slide 43)

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 the EHR system, or repeated trainings.

### Feedback (Slide 44)

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 daily or weekly frequently at the start

### Implementing the new Eye Exam Script at Happy Family Clinic (Slide 45)

To implement Sidewalk Story at Happy Family Practice, the QI team decides to use:

* training
* performance feedback

The practice manager:

* scheduled a **1-hour training** for CHWs
* posted a performance report on the “data wall” each week

### Never forget to CELEBRATE wins (Slide 46)

AND Finally…

Never Forget to CELEBRATE QI Wins!

Celebrating wins and thanking people for their hard work creates a positive culture and ALSO helps people try and implement new things!

The medical director:

* held a pizza party for the CHWs when all CHW patients with T2D in a week heard the Sidewalk Story

# Homework (Slide 47)

**Handout 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 48)

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

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 49)

Learning objective 1. 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 50)

Did we accomplish Learning Objective 1?

**Invite reaction and discussion by learners

### Learning Objective 2. (Slide 51)

Learning objective 2. Can you hold a brainstorming session to generate solutions to test

### Review. The rules for brainstorming (Slide 52)

Did we accomplish Learning objective 2?

**invite reaction and discussion by learners

### Learning Objective 3. (Slide 53)

Learning objective 3. Can you describe each of the 6 steps of the QI journey?

### Review. The 6 steps of the QI journey (Slide 54)

Did we accomplish Learning objective 3?

**Invite reaction and discussion by learners?

### Evaluation (Slides 55-56)

1. How much did this session increase your knowledge about quality improvement?
2. How satisfied are you with this session today?
3. What was the most helpful part of the session for you today?
4. What is one thing we can change to make this session more helpful next time?