Ghana: Quality Improvement Curriculum for Health Facilities

August 2017
ABOUT SPRING

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a seven-year USAID-funded cooperative agreement to strengthen global and country efforts to scale up high-impact nutrition practices and policies and improve maternal and child nutrition outcomes. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, The Manoff Group, Save the Children, and the International Food Policy Research Institute.

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# Contents

<table>
<thead>
<tr>
<th>Session</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronyms</td>
<td>iii</td>
</tr>
<tr>
<td>About This Curriculum</td>
<td>v</td>
</tr>
<tr>
<td>Session 1: Introduction to Quality Improvement Training</td>
<td>1</td>
</tr>
<tr>
<td>Session 2: What is Quality?</td>
<td>5</td>
</tr>
<tr>
<td>Session 3: What is Improvement?</td>
<td>9</td>
</tr>
<tr>
<td>Session 4: PDSA Cycle</td>
<td>13</td>
</tr>
<tr>
<td>Session 5: QI Team Meeting</td>
<td>17</td>
</tr>
<tr>
<td>Session 6: Well-Functioning QI Teams</td>
<td>23</td>
</tr>
<tr>
<td>Session 7: Coaches Roles and Responsibilities</td>
<td>27</td>
</tr>
<tr>
<td>Session 8: Decision Making Process</td>
<td>31</td>
</tr>
<tr>
<td>Session 9: Understanding the Current System</td>
<td>35</td>
</tr>
<tr>
<td>Session 10: Creating an Indicator</td>
<td>37</td>
</tr>
<tr>
<td>Session 11: QI Timeline</td>
<td>41</td>
</tr>
<tr>
<td>Annex 1: Training Agenda</td>
<td>43</td>
</tr>
</tbody>
</table>
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANC</td>
<td>antenatal care</td>
</tr>
<tr>
<td>CHN</td>
<td>community health nurse</td>
</tr>
<tr>
<td>CHPS</td>
<td>community-based health planning and services</td>
</tr>
<tr>
<td>CHV</td>
<td>community health volunteer</td>
</tr>
<tr>
<td>CWC</td>
<td>child welfare clinic</td>
</tr>
<tr>
<td>FBP</td>
<td>faith-based provider</td>
</tr>
<tr>
<td>GMP</td>
<td>Growth Monitoring and Promotion</td>
</tr>
<tr>
<td>HC</td>
<td>health clinic</td>
</tr>
<tr>
<td>HF</td>
<td>health facility</td>
</tr>
<tr>
<td>IYCF</td>
<td>infant and young child feeding</td>
</tr>
<tr>
<td>MUAC</td>
<td>mid-upper arm circumference</td>
</tr>
<tr>
<td>PDSA</td>
<td>plan, study, do, act</td>
</tr>
<tr>
<td>QI</td>
<td>quality improvement</td>
</tr>
<tr>
<td>RCH</td>
<td>Reproductive and Child Health</td>
</tr>
<tr>
<td>TBA</td>
<td>trained birth attendant</td>
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<tr>
<td>UDS</td>
<td>University for Development Studies</td>
</tr>
</tbody>
</table>
About This Curriculum

This curriculum is meant for Quality Improvement (QI) trainings where participants are the coaches for the teams or are the QI team members at health facilities. This QI training is designed to be implemented at the health facility, and relates to corresponding PowerPoint Slides.
Session 1: Introduction to Quality Improvement Training

Session Objectives
By the end of the session, participants will be able to—

- Identify the other participants in the training.
- Apply group norms that will be followed during the training.
- Explain the goals and objectives for the course.

Time: 60 minutes

Materials
- name tags, name tents, and markers
- pen for each participant
- blank paper for each participant

Flipcharts
1. Instructions for Group Activity
2. Years of Experience (title only)
3. Group Norms (title only)

PowerPoints
1. Session Title
2. Slides with goals and objectives
3. Manual Questions
4. Pre-Test Questions

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Anticipate questions and have answers.
- Gather needed materials.
- Ensure the Year of Experience¹ and Group Norms flipcharts remain posted throughout the workshop; they will be referred to regularly during the workshop:

¹ Throughout this manual, you will see references to flipcharts and PowerPoint presentations. If you do not have a projector available, you can create flipcharts from the slides. If you have a limited amount of flipchart paper, you can reduce or eliminate some of the flipcharts. This one, “Years of Experience,” is nice to have, but is not mandatory.
Name Tag and Tent

As participants enter the training room, one facilitator should greet each one and ask them to make a name tag to wear and a name tent for his/her seat. Make sure they use a marker so the facilitators can clearly see the writing.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Welcome Remarks and Introductions</td>
<td>Lecturette and group activity</td>
<td>40 mins</td>
</tr>
<tr>
<td>2. Group Norms</td>
<td>Interactive lecturette</td>
<td>5 mins</td>
</tr>
<tr>
<td>3. Goals and Objectives</td>
<td>Interactive lecturette</td>
<td>15 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Welcome Remarks and Introductions – Lecturette and Group Activity – 40 minutes

Welcome

Start the workshop by welcoming participants and introducing yourself and the other facilitators. Tell participants that if they have any administrative questions, concerns with the venue, or problems, please tell the workshop administrator (introduce them).

Introductions

Tell participants that we will now introduce ourselves. We will go around the room and each one of us will address what is written on this flipchart.

Display the poster Instructions for Group Activity.

1. Name
2. Title
3. Place of Work
4. Years of experience working in nutrition
5. What skills or experience do you bring to the workshop?
6. Your activity other than work.

Note: As participants are introduced, the facilitator should write on—Flipchart 1: Years of Experience—the number of years of nutrition experience for each participant. Facilitators should also note the responses to question 5 about favourite the special skills and knowledge that participants are bringing to the training.

Summarize this activity by telling the participants the total number of years of experience represented in the room.

Tell participants that each of them has special skills and experiences that should be shared with the others during the workshop. The facilitator should highlight several skills and experiences that were mentioned during the presentations.
2. **Group Norms - Interactive Lecturette - 5 minutes**

Display flipchart—**Group Norms**. Tell the participants it will be helpful if we establish some “ground rules” for working together effectively and without distractions.

Ask the participants to propose rules or guidelines for the training.

For each norm proposed, determine if there is a consensus; then, note the norm on the flipchart. Seek clarification (if needed) to reach a group consensus. However, do not spend more than five minutes generating this list or reaching consensus. These rules should include—

- Wear name tags every day.
- Do not sit in the same place every day.
- Start trying to name everyone in the room.
- Listen carefully to everyone’s ideas.
- Turn mobile phones on silent or off.

When the list is complete, post the sheet near the entrance/exit door where it can be seen easily and referred to during the workshop. Ask the participants if they have any questions.

3. **Goal and Objectives - Large Group Discussion - 15 minutes**

Ask participants why they came to the workshop. Some may not know why they came and some may not know, in any detail, what the workshop is about.

Display slide—**Course Goals**. Have one participant read the goal. Have other participants read each of the remaining goals. After they finish, ask the participants if they have any questions about the goals and objectives for this workshop.

**Goals:**

1. Provide technical support to quality improvement (QI) team.
2. Improve the Quality of Growth Monitoring and Promotion (GMP) services at the child welfare clinic (CWC) (at both static and outreach points).
3. Improve the optimal growth of all children under 2 years of age.
4. For coaches—Improve the quality of health services, and develop a pool of coaches at the district that can assist the QI team at the health facility.

Display slide—**Objective of HF In-Charge Training**—and ask participant to read them.

Assist health facilities to—

1. Form QI team.
   - Establish QI team at each health facility.
   - Select appropriate team members.
2. Establish a well-functioning QI team.
   - Manage stages of team development.
   - Correctly weigh all children under 2 years of age.
   - Fill out growth chart completely and correctly.
iv. Triage caregivers for counseling.

v. Provide caregivers targeted counseling.

vi. Provide interactive education session.

3. Develop well-functioning QI meeting.
   i. Find gap/problem, causes of problem, root cause of problem, brainstorm possible solutions (change ideas), prepare action plan, test change idea, and measure improvement.

4. Conduct continuous implementation plan, study, do, act (PDSA) cycle of testing change idea and measure improvement.

5. Document lesson learned from testing change ideas and measure improvement.

**Display Slide Course Objectives II**

For QI team members: Support health facility to—

1. Attend QI team meetings regularly.

2. Support a well-functioning QI team.

3. Participate in well-functioning QI meeting.
   a. Find gap/problem, causes of problem, root cause of problem, brainstorm possible solutions (change ideas), prepare action plan, test change idea; and measure improvement.

4. Conduct continuous implementation (PDSA cycle) of testing change idea and measure improvement.

5. Document lesson learned from testing change ideas and measure improvement.

Ask if there are any questions.

**Summarize:**

The goal of this training is to introduce the concept of quality improvement and to train you to be experts on QI, and able to implement the program in your district/at your health center.
Session 2: What is Quality?

Session Objectives

By the end of the session participants will be able to—

- Understand the definition of quality.
- Be able to define quality.
- Be able to apply quality to the health field.

Time: 60 minutes

Materials

- flipchart
- markers
- slides with scenarios

Trainer Preparation

- Gather needed materials.
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Anticipate questions and have answers.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Defining Quality</td>
<td>Lecturette</td>
<td>10 mins</td>
</tr>
<tr>
<td>2. Quality Scenarios</td>
<td>Lecturette, Discussion</td>
<td>50 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Defining Quality - 10 minutes

Introduce the topic of “quality.” Explain that we will discuss “What is Quality” during the following activities.

Ask participants to divide into pairs. Ask each pair to share their responses to the following:

Think of a time when you bought something of high quality. What made it high quality?

Show slide—Examples Quality

After the pairs discuss their answer, bring the group together and write down the different responses on the flipchart.

Highlight responses. Remind participants that “Quality is different for different people.”

Ask: Think of a time when you had a high-quality service. What made the service high quality?
After the pairs discuss their answers, bring the group together and write down the different responses on the flipchart.

Highlight responses. Remind participants that “Quality is different for different people.”

**Summarize:** Every participant experienced quality in a different way, whether it’s a service or an item.

### 2. Quality Scenarios - 50 minutes

Now we will look at examples of quality at the health service.

Show slide—**Scenario 1: Quality of Care?** Ask a participant to read the scenario on the screen.

**Scenario 1: Quality of Care?**

Being from one of the model families in her village, Fatima went to Kumbungu Reproductive and Child Health (RCH) for her antenatal care (ANC) checkup. Unfortunately, because the midwife did not speak Fatima’s language, she kept Fatima there until she could find a translator. Fatima had to wait for two hours.

**Ask:** Did Fatima receive quality care from the midwife? Explain why or why not.

Ask for suggestions from the participants—allow approximately five minutes for suggestions, then add any ideas that are missing.

Show the next slide—**Scenario 2: Quality of Care?** Ask a participant to read the following scenario:

**Scenario 2: Quality of Care?**

- Last Saturday, Rafia gave birth to a beautiful baby with the assistance of a trained birth attendant (TBA). However, the TBA could not expel the placenta from Rafia’s womb. Rafia was rushed to a nearby health center when the bleeding did not stop. The midwife at the health center had no sterile gloves. After keeping Rafia for one hour, the midwife realized that she had to send Rafia to a district hospital.

**Ask:** Did the midwife give Rafia quality care? Explain why or why not.

Ask for suggestions from the audience—allow approximately five minutes for suggestions, then add any ideas that are missing.

**Summarize:** The two scenarios showed how small things, such as language capability or late referral, can impact the quality of health care.

Show the next slide—**Quality from Which Perspective?** It explains the importance of looking at quality from different perspectives, like stakeholders.

- clients and family
- providers
- health care manager
- community

Show slide—**What is Quality?** with the example: Five blind people describing an elephant as a summary to reinforce the different perspectives of quality for different people.

So far, we can all appreciate that quality is very difficult to define, because it means different things to different people. However, the Institute of Medicine has developed a set of standards known as Dimensions of Quality for health care providers.
Show slide depicting—**Dimensions of Quality.**

- Care must be safe.
- Care must be effective and reliable.
- Care must be patient-centered.
- Care must be timely.
- Care must be efficient.
- Care must be equitable.

Introduce another view of quality, called “Quality from a Systems View.”

Show slide—**Quality from a Systems View** and explain that if you want to improve the quality, you must look at the entire system. Explain the different parts of the system: Inputs, Processes and Outputs; provide examples of each.

Show slide—**Main Points** with the example: Five blind people describing an elephant as a summary to explain looking at the whole system, instead of just the parts.

**Summarize:** “What is Quality.”

1. The definition of quality of services is different for different people.
2. People become unsatisfied with the health services they receive at the health facility because it is not their standard of quality.
3. When defining quality of services, it is important to create awareness of the dimensions of the quality of health care services among patients.
4. If you want to improve the quality of service you must look at the system (inputs, processes and outputs) of health services.
5. Because quality changes over time, how do we ensure that quality is maintained over time?
6. Patients should be aware of the different level of health care services provided at the different level of health facilities (hospital, health center, and community-based health planning and services [CHPS] compound).
Session 3: What is Improvement?

Session Objectives
By the end of the session participants will be able to—

- Identify the element of making improvements.
- Carry out the steps for improvements.

Time: 90 minutes

Materials
- flipchart
- markers
- balls (2)
- slides

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Improvement</td>
<td>Lecturette</td>
<td>15 mins</td>
</tr>
<tr>
<td>2. Elements of Improvement</td>
<td>Discussion</td>
<td>30 mins</td>
</tr>
<tr>
<td>3. Activity How to Make Improvements</td>
<td>Activity</td>
<td>45 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. **Introduction to Improvement - 15 minutes**

The next question we ask ourselves is, **How do we improve quality?**

Introduce the topic of Improvement, explaining that we will talk about the concept of improvement and how to define it.

Have participants divide into groups of three. Pull up the first improvement slide—**What Do We Mean by Improvement?**

Ask the participants to answer the following question in their groups:

Think of a time when you changed a way of doing something and it lead to an improvement.
After the groups discuss their answer, bring the group together and write their responses on the flipchart.

Highlight responses. Remind participants that improvement can only be done if there is a gap—improvement works to reduce the gap.

**Summarize:** Every participant has changed something in their life that has led to an improvement.

Now, ask them to answer the second question on the same slide in their groups:

- How did this improvement happen?

After the groups discuss their answer, bring the group together and write their responses on the flipchart.

Highlight responses. Remind participants that they achieved this improvement by coming up with a change idea and testing it.

**Summarize:** Improvement can only be done if there is a gap. After the gap is identified, then change ideas are developed and tested to see if the gap is reduced.

### 2. Elements of Improvement - 30 mins

Continue by telling an improvement story with the following elements:

1. Identify a problem.
2. Define change ideas.
3. Test the different change ideas.
4. Decide on the most effective one.

Compile some of the commonalities from all the stories that helped to result in an improvement.

Show the next slide—*What would be an improvement at CWC.* Ask the participants to brainstorm some ideas, looking back to the previous steps identified.

Show the slide—*What Is and Should be the Situation at the Facility*—and the chart about improvement; emphasize “Where are you now?” and “Where do you want to go.” Consider writing these two questions on flipchart and hanging on the wall.

Show the slide—*Case Study 1.* Ask a volunteer to read the following case study:

- Joyce is the in-charge of the RCH unit in Karaga district. She was just transferred from Bongo district. She has worked in the RCH clinic in Karaga for more than four months. According to the community health volunteer’s (CHV’s) records, there are more than 200 pregnant women in the community. But, the ANC register shows only 15 pregnant women received ANC services last month. Joyce does not know what to do. Her colleagues are fine with providing ANC services to only 15 pregnant women.

Ask participants the following questions:

- What do you think the staff should do?
- Why they should do that?
- How can they do that?
- How can you show this using an improvement diagram?

Show the slide—*Case Study 2.* Ask a volunteer to read the following case study:

- Robert learned that growth charts were filled out completely and correctly. He trained and assigned a
volunteer to help the nurse fill out the charts. The following month he found 20 percent of growth charts filled out completely and correctly. He shared this result with the staff and discussed how they could increase to having 50 percent of growth charts filled out correctly. Staff promised to do their best. After three months Robert found that the 20 percent of correctly filled out growth charts had increased to 70 percent.

- Use an improvement diagram to show the change in percentage of growth charts correctly filled out.
- What change could have been used for the first improvement?
- Propose a change idea that the staff might have used for the second improvement.

Show slide—Case Study 3. Ask participants to look at the scenario on the slide. Change is seen, but the change ideas are not there. Ask participants to brainstorm some reasons why the improvements could have happened.

**Explain**: Improvement requires the following steps:

- Determine the gap between what is your coverage now and what coverage you would like to achieve.
- Brainstorm interventions (change ideas).
- Select one intervention or change idea to test.
- Test the change ideas for a period of time.
- Measure the improvement.
- Plot improvement.

Introduce the following ball game exercise.

### 3. Activity - How to Make Improvements - 45 minutes

**Instructions:**

Divide participants into two groups. Assign a time keeper for each group. Tell the groups that there is **no talking** until they are told they can talk.

Show slide—**Exercise: What is improvement, how does it happen?** Review the instructions.

1. Tell each group to pass the ball to each person. The timekeeper will record the time it took to pass the ball to each person on the team.
2. Participants have three more attempts to pass the ball and reduce their time.
3. Participants are allowed to talk. Ask them to discuss within the groups ways to pass the ball that will result in a lower time.
4. Using their new method to achieve a lower time, continue to pass the ball.
5. Ask the group to write down the change ideas on flipchart paper, and plot the information from the activity on a graph.
6. Ask each group to come forward and present the change ideas they used and what is on the graphs.

Ask each group to reflect on what they did differently that resulted in improvement in the subsequent attempts.

**Summarize**: If you want to improve, you must create change ideas, and test them.
In the previous activity, we practiced coming up with change ideas and testing them. This model for improvement is one example of how to create change ideas and achieve improvement.

This Model of Improvement was developed and accepted so that organizations and groups use the same measurement and system. The facilitator will show slide—**How to Make Improvements.** They will explain the Model for Improvement.

Improvement involves identifying gaps, creating change ideas to work on the gaps, testing the ideas, measuring improvement, and deciding which one to keep doing or change. Model for improvement is used to design improvement projects.

Show slide with quote: **If you cannot measure it...You cannot improve it.**

Show slide with quote: **The first step toward getting somewhere is to decide that you are not going to stay where you are.** —Anonymous

**Discuss:**

Now that we have talked about improvement, what do these quotes mean to you? What must we know before we start any type of improvement?
Session 4: PDSA Cycle

Session Objectives
By the end of the session participants will be able to—

- Describe the steps of the PDSA cycle.
- Use the PDSA cycle to analyze applications of quality improvement.

Time: 60 minutes

Materials
- flipchart
- markers
- slides with PDSA cycle and scenarios

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to PDSA cycle—Plan, Do, Study, Act</td>
<td>Discussion</td>
<td>20 mins</td>
</tr>
<tr>
<td>2. Quality Improvement in the Health Context</td>
<td>Discussion/Case studies</td>
<td>40 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Introduction to PDSA cycle - Plan, Do, Study, Act - 20 mins

We discussed what “quality” and “improvement” mean, but how do we bring these two ideas together to create quality improvement? We are beginning to understand that improvement is a cycle, and it takes time to develop change ideas. As we saw with the ball game, it took many different change ideas to reduce the time. Some worked better than others. This cycle of change is important to remember.

The model for improvement is known as the Plan-Do-Study-Act cycle. Show slide—Model for Improvement—which introduces the PDSA cycle.

Show next slide—Model for Quality of Improvement

Asks three questions before testing change ideas:

1. What are we trying to accomplish?
a. Develop improvement aim

2. How will we know that a change is an improvement?
   a. Measure improvement (to identify appropriate measures that track improvement).

3. What change can we make that will result in an improvement?
   a. Change Idea to test (identify key change Ideas to test).

   **Plan:** Plan how to test change ideas.
   **Do:** Implement change idea.
   **Study:** Measure Improvement (collect data).
   **Act:** Make a decision based on improvement result: adopt, adapt, or abandon the change idea.

Use the process of the ball game, change idea tested, and data measured to explain the modern model for improvement, for example—

The team did the first round, and gathered the baseline time. Then, they came up with an idea they believed could reduce the time, and they did it. Did the time change?

What did the team do next?

Ask the participants if they had to select one of the “change ideas” to implement, which one would they chose? Why would they choose that one?

Move to next slide—The **PDSA Cycle**—and show the continuous cycle.

**Summarize:** The PDSA is critical for QI. Not every change idea tested will produce the desired results. It is important to continually be looking at the results, and changing, as needed.

**2. Quality Improvement in the Health Context - 40 minutes**

In the ball game: we planned one initial change idea. We did the change idea. We studied the results. If we felt the time could be lower, we acted by creating a new change idea, or altering the older one.

Show slide with quote: **Quality Improvement must be data driven.**

**Discuss:**

What do you think about this quote? Now that we have looked at the PDSA cycle, how must QI be data driven?

Study—How do you know if an idea is working or not? How can you tell if you are improving?

Data supports all your claims, and show improvement in numbers.

**Principles of Quality Improvement:**

We talked about ‘quality,’ and how quality means different things to different people. Then, we moved onto ‘improvement’ and, with the practice from the ball game, came up with change ideas to reduce our time. In the previous activity, we saw that coming up with change ideas, tracking the effect they have, and being able to plot them on a graph were all very important.

How do we bring **Quality and Improvement** together, and think of it in a health context?
Introduction: We are going to talk about the principles that relate to Quality Improvement and will ensure that improvement is maintained, because we know that quality can change over time.

Show slide—Principles of QI. Ask a volunteer to read the following scenario:

Robert visited a QI model health facility in Karaga district. The first thing Robert did was to ask the health facility manager to draw the process/steps a client will go through when attending CWC. The manager, Latifa, told him that she would like to improve the filling out of growth charts completely and correctly during the GMP services. She found that most of the growth charts were not filled out completely and correctly.

Robert asked Latifa how she knew the charts were not filled completely and correctly. Did she have any data? Latifa showed him the record of growth charts filled out completely; it showed that only 20 growth charts were completely and correctly completed. Using the process map she had recently made, Robert asked which staffs were directly involved in filling out the growth chart and who kept the record of filled out growth chart. After writing down the names Latifa mentioned, Robert told her to form a team with these people.

Robert also told the manager to educate caregivers about why filling out the chart correctly and completely was important; that being able to see the growth curve on the chart will tell mothers if their child is growing well.

Have participants offer answer to the following question:

What was the main information Robert needed to help Latifa implement QI and improve the quality of GMP services?

Go step-by-step in the scenario, and pull out the necessary information, related to the following principles.

Ask: What was the first thing Robert did?

Answer: He asked the manager the process of CWC.

On flipchart write, "Understanding system and processes."

Ask: What was the next thing Robert did?

Answer: He asked Latifa for data, after she said she thought there was a gap.

On the flipchart write, "Use of Data."

Remind the participants that they must have data to know that there is a gap.

Ask: What was the next thing Robert did?

Answer: He asked Latifa to name the people who were part of the CWC process and form a team with those members.

On flipchart, write: “Teamwork.”

How can anything change at CWC if the staff who complete the process are not part of the change?

The team is necessary to ensure that changes are implemented.

For the last principle, remind participants of the objective: To improve the quality of services delivered at the facility.

On flipchart, write: “Focus on the Patient.”
Remind them that the goal of this training is to provide better services to the patients, so we must always remember to focus on them.

Show slide—Principles of QI – 2.

1. Understanding systems and processes.
2. Teamwork.
3. Focus on the patient.
4. Use of data.

Summarize: Because these are the main ingredients of the quality improvement process, they are called Basic Principles of Quality Improvement. Quality looks at the different dimensions of ‘quality’; therefore, focusing on what the patient wants is important, as well as including your own perspective into your improvement aim. To improve the system, you must understand what health process or system you are working with. Using data is how you can measure where you are now, and where you want to go. You need data to create an improvement aim.
Session 5: QI Team Meeting

Session Objectives
By the end of the session participants will be able to—

- Identify steps in the QI team meeting.
- Apply steps in the QI Team meeting.
- Develop an action plan.

**Time:** 120 minutes

Materials
- flipchart
- markers
- scenarios
- slides (day 2)
- growth chart

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.
- Rehearse the roll play.
- Make enough copies of the roll play for all parts.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The QI Team Meeting</td>
<td>Facilitator Led Roll Play</td>
<td>50 mins</td>
</tr>
<tr>
<td>2. Participant Role Play Activity</td>
<td>Roll Play Exercise</td>
<td>70 mins</td>
</tr>
</tbody>
</table>
Learning Activities

1. QI Team Meeting - 50 minutes

Now that we’ve talked about team functionality, issues that come up in team work and how to get through them, we need to talk about the actual QI meeting. What happens in the meeting? What needs to be discussed? What are the various roles to play?

In the first team meeting, the team leader should define the roles and responsibilities of the team leader, coach, and team members. The team should also develop team ground rules and QI team meeting schedule.

Ask: Have you conducted a meeting before? What were the steps? Listen to responses.

Facilitators will do a role play on How to Conduct a QI Team Meeting.

Show slide—Role Play – How to Conduct a QI Team Meeting—with the scenario, while doing the role play.

Roles:
- coach, chairperson, and secretary
- community health nurse (CHN)
- CHV

At Voggu CHPS facility, the QI team discovered that the staff are not plotting the growth chart completely and correctly. Data were collected during the month, showing that only 60 growth charts were filled out completely and correctly out of 100. At the QI team meeting, three change ideas were brought up:

1. Orient the staff on how to plot and join the line correctly.
2. The QI coach provides on-the-job support.
3. Train the community health volunteer on how to plot and join the line correctly.

Lead the following role play:

Chairperson:
- You are all welcome.
- Because we are meeting some members for the first time, let us do a self-introduction (name, position in health facility and role in the QI team).
- Thank you all for the introductions.

All members present do self-introduction. Chairperson:
- On that note, the purpose of today’s meeting is to review the action plan we made for the last meeting and, also, to plan for the next month.
- Secretary, please read us the minutes for the last meeting.

Secretary:
- At the last meeting, the chairman, secretary, CHN, coach, and in-charge were present and designated as members of the QI team.
- Only 60 percent of the growth charts were identified as being filled out correctly and completely during CWC session.
- For the next meeting, the CHN was tasked with collecting data on growth charts filled out correctly and
The CHN was to orient the CHV to assist in filling out growth charts correctly and completely.

Chairperson:

• Thank you, secretary.
• Can our CHN please present the data collected so far for us?

CHN:

• After I oriented the CHV to assist during the last CWC, 60 percent of the growth charts were filled out correctly and completed.

Coach:

• What was your criteria for determining correctness and completeness?

CHN:

• Date of birth written, birth weight written/plotted, subsequent months weights written/plotted, and plots joined to each other.

Chairperson:

• Thanks for the presentation.
• During the last meeting and action plan drawing, the change idea we agreed to use was to give an orientation for our CHV to assist the CHN to correctly and completely fill out growth charts.
• Should we maintain this change idea, add to it, or replace it?

All members:

• Let us maintain the change idea for another month.

Chairperson:

• OK.
• CHN, kindly assist us in drawing the action plan for the next one month.
• CHN:

<table>
<thead>
<tr>
<th>Gap</th>
<th>Purpose</th>
<th>How</th>
<th>Who</th>
<th>When</th>
<th>Remarks</th>
</tr>
</thead>
</table>

Chairperson:

• Thank you, CHN.
• We plan to increase the growth chart filling out correctly and completely from the current 60 percent to 70 percent (10 percent gap to fill).
• The purpose is to correctly and completely fill out growth charts.
• The growth charts that are presented during the next CWC with the date of birth written, birth weight written/plotted, subsequent months weights written/plotted, and plots joined to each other will be counted as correctly and completely filled out growth charts.
• The CHN, assisted by the CHV, will ensure that this is done during all the CWC sessions and will be carried
out before our next meeting.

- Any comments from members? (wait for responses)
- When do we meet next month? (wait for responses and agree on a date)
- Thank you all for coming.

**Role Play Review:**

Review with participants what they thought of the roll play.

What was realistic and what was real? What did we learn by watching this?

Any questions?

Show slide—**Action Plan.**

Review the sections of the action plan.

<table>
<thead>
<tr>
<th><strong>Action Plan:</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Gap/Problem</strong></td>
</tr>
<tr>
<td>Only 60% of growth charts are filled completely and correctly.</td>
</tr>
</tbody>
</table>

Make sure the participants understand the action plan by asking questions to check their comprehension. Are they clear on every part of it? Refer back to the gap—60 percent of the growth charts were not filled out correctly. Ask them, why is this a problem?

List their answers on the flipchart.

Show slide—**QI Team Meeting Steps:**

**Review Steps of a QI Team Meeting:**

1. Find out the gaps.
2. Ask, why are these gaps happening?
   - List the reasons why this gap is happening.
   - Select ONE. Where can your facility make an impact?
3. Find the root cause of that gap. List the root causes.
   - Select ONE.
4. What are solutions to that cause? List the solutions.
   - Select ONE. This is your change idea.
5. Create an action plan.

Do this for the previous scenario, based on the answers from the participants. What problems did they give? Ask them to select one. Find the root cause of that problem. Find solutions to that root cause. Select one
solution to implement. Create the action plan.

2. Participant Role Play Activity - 70 minutes

Ask participants to form three groups and give the following scenarios to each group.

Show slide Case Study to practice in a small group.

Scenario 1:

Attendance at Kumbungu health facility (HF) RCH has been low, compared to previous months. The QI team discussed expanding the number of outreach points and they selected the chief change idea to implement: Conduct a QI team meeting where this change idea is examined for the next course of action to be taken.

Scenario 2:

Attendance at Kumbungu HF RCH has been low, compared to previous months. The QI team discussed expanding the number of outreach points and they selected the chief change idea to implement. In the team’s action plan, it was decided that two of the Community Health Nurses would lead this change; however, one CHN did not attend an outreach clinic that month. Conduct a QI team meeting where the team responds to this challenge.

Scenario 3:

Attendance at Kumbungu HF RCH has been low, compared to previous months. The QI team identified this problem. Act out the QI team as it discusses this problem, brainstorm possible change ideas, and develop an action plan.

Ask the participants to follow the previously stated steps for a QI team meeting. They should brainstorm causes of the problem they were given, root causes, solutions/change ideas, and draw up an action plan. These steps should be clearly outlined in the minutes.

Have each group present their role play to the rest of the group. Make sure they follow the steps of the QI team meeting.

Summarize: Remember the steps of the QI team meeting.

1. Find out the gaps.
2. Ask, why are these gaps happening?
   List the reasons for why this gap is happening.
   Select ONE. Where can your facility make an impact?
3. Find the root cause of that gap. List the root causes.
   Select ONE.
4. What are the solutions for that cause? List the solutions.
   Select ONE. This is your change idea.
5. Create an action plan.

Write the minutes for the meeting and share them with other QI team members.

During the QI team meeting, make sure that that every one of these steps are taken. Getting into the practice of following these steps every meeting will ensure that it becomes habit, and it will soon feel strange to hold a meeting without following these steps. Help QI become second nature; you’ll reach a point where you can do the meetings without much effort.
Session 6: Well-Functioning QI Teams

Session Objectives

By the end of the session participants will be able to—

- Analyze case studies for team building do's and don’ts.
- Identify the steps for putting together a QI team.
- Explain the stages of team development.
- Explain how to use a fishbone diagram to do root cause analysis.
- Use a fishbone diagram to determine root cause analysis.

Time: 105 minutes

Materials

- flipchart
- markers
- scenarios
- slides (day 2) on Case Studies, Root Cause Analysis
- four sheets of paper, each with one of the following words: forming, storming, norming, and performing

Trainer Preparation

- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.
- Determine who will be in the role play and how it will be set up.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Developing QI Teams</td>
<td>Case Study and Role Play</td>
<td>45 mins</td>
</tr>
<tr>
<td>2. Using QI Tools (Fishbone and Root Cause Analysis)</td>
<td>Small group exercise</td>
<td>60 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Developing QI Teams - 45 minutes

We learned previously that an important principle of QI is teamwork.

Ask: Why would teamwork be important? Listen to responses.
When we look at a health system, there are many people playing a part in a greater system. No one person runs the CWC, so it is important to make sure everyone on the CWC team is part of an improvement aim. Without the support of the entire team, change will be difficult to achieve.

Have a volunteer read the following case study: Show slide—Case Study: Midwife Mary.

Mary is a midwife who has worked in Sakogu Health Center for 10 years. Last month, she was sent to attend a five-day infant and young child feeding (IYCF) training in Tamale. She was impressed with the training, which taught her how simple activities can solve most of the IYCF problems that she had been unable to do before. During the training, she practiced filling out growth chart correctly and completely and conducting targeted counseling. Now she is confident in filling out growth charts and counseling. After returning from the training, she tried to improve the quality of the above services in her health facility, but she has not been able to do it. She realized that she needs a team to improve the quality of services. She went to meet her coach to get advice on how she can form a QI team.

As a coach, advise her on the steps/processes of forming a QI team in her health facility.

Discussion.

Move to next slide—Case Study Hazia’s Story. Show the following:

Hazia attended a three-day HF in-charge QI training in Kumbungu. After returning from training, she wanted to form a QI team. She has nine staff in her health facility. She was advised to form a QI team of five to seven members. But, she did not want to upset her staff, so she decided to include all nine staff as QI team members.

If you were her facility coach what would you have suggested her?

- Would you have agreed with her decision?
- If not, what would you have suggested her to do?

Teams work well if everyone involved is invested in the goals of the team. Having people participate in QI who are not vital to the process of CWC will hold the team back, ensuring low functionality.

Show slide—Stages, Meaning, Member Reaction—that explains the different phases a team goes through.

Stages of developing functioning QI team:

In quality improvement, a QI team is a group of people who work toward common goals. The objective of these teams is to solve an identified problem, and team members must develop a feeling of trust and honesty to fully accomplish their objective.

Developing a team involves four basic stages:

1. Team formation
2. Storming
3. Norm acceptance
4. Performance

A team may develop normally from the first to the fourth stage, just at it can fall back or skip stages. Knowledge of these functional stages is useful for coaches, because they must make a rapid assessment and find solutions.
quickly. The table on the slide shows that behaviour of team members at each stage, and corrective actions to be taken.

**Role Play**

Remind participants that going through every stage is important. Begin the following role play:

**Forming:** Each team member starts by sitting in a chair. The chairman welcomes them to the meeting. They discuss the aim of the QI team; the members introduce themselves and explain their role.

**Storming:** Different members are tasked with implementing certain changes, but one of them fails to do their part. The team argues about the merits of the team member. Are they contributing? Insults are made.

**Norming:** The coach intervenes and keeps the peace. They come up with a new change idea, or the team member commits to fulfilling his/her end of the plan. Apologies are given.

**Performing:** The team gathers again to discuss the results from the past months change idea. They notice a change, and congratulate everyone on doing a good job.

**Summarize:** An important part of quality improvement is establishing QI teams. A team will help support QI initiatives and make sure that improvement goals are tested and implemented. It is necessary to compose QI teams from interrelated department staff because of the following reasons:

1. Health care processes are interconnected with different department people so they need a team of interlinked staff to improve the quality of services.
2. Staff of different units know the systems and processes of their unit very well so they can suggest doable and affordable change ideas.
3. Over time, it develops the trust and culture of teamwork.

Show slides—Summary of Establishing QI Team 1 and 2—and review.

**2. Using QI Tools - Fishbone and Root Cause Analysis - 60 minutes**

Now that you know how to conduct a QI team meeting, what happens if the team cannot identify a problem? Some QI tools are available to help encourage the group into suggesting an issue and then a corresponding change idea.

Show the three slides to introduce how to use the fishbone diagram to establish a root cause and review.

**Slides:**

- **Fishbone (cause-effect) diagram**
- **Fishbone diagram (no title)**
- **Brief Exercise: Fishbone diagram**

Next, on the flipchart, draw the outline of a fishbone diagram. In the head write: Children are underweight. Ask the group to contribute possible reasons, which could include—

- sickness/illness (diarrhea, malaria, etc.)
- poor feeding practices
- poverty
• bad farming year
• or more

Talk about the significance of big bones versus small bones: some problems are too big to tackle, and some are “chewable.” Focus on the chewable ones.

Make sure the participants understand how the fishbone diagram works. Then, move to the root cause analysis.

Take one of the small bones from the fishbone and use it as the issue for the root cause analysis. Write the issue on the top of the flipchart, and ask the group “Why”? Continue asking for four or five ‘root causes,’ and make sure you have moved from the household to the facility. The facility is where we can have an impact—it is important that our QI change ideas focus on the facility and move away from the household.

After you reach the bottom of the root cause, talk about how trying to solve the small issue can have a ripple effect up through the root, ultimately targeting the main issue.

Activity:

Divide the participants into four groups. Groups 1 and 2 will do a root cause analysis. Groups 3 and 4 will do a fishbone diagram. The groups “problems” are as follows:

1. Growth chart are not correctly and completely filled out.
2. HF staff is not providing targeted counseling.
3. Caregivers are not triaged for counseling.
4. Total number of completely and correctly filled out growth charts are not available.

Give each group a flipchart paper and tell them they have 20 minutes to practice their tools before presenting to the larger group.

Summarize:

These tools are to be used during QI team meetings. If the team is having trouble and does not have a change idea, use these tools to help them brainstorm new ideas.
### Session 7: Coaches Roles and Responsibilities

**Session Objectives**

By the end of the session participants will be able to—

- Identify roles and responsibilities of coaches.

**Time:** 60 minutes

**Materials**

- flipchart
- markers
- slides on coaches’ roles and responsibilities.

**Trainer Preparation**

- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.

**Learning Activities Summary**

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Roles Responsibilities of Coaches</td>
<td>Lecturette</td>
<td>60 mins</td>
</tr>
</tbody>
</table>

**Learning Activities**

**1. Role Responsibilities of Coaches**

In the previous sessions, we talked about the different roles needed for QI.

Which roles were discussed?

When someone says coach, interject—exactly. Now, let’s talk about the coaches' roles and responsibilities.

Show slide—**Demonstration**

Explain: Coaches will help demonstrate the activities to the QI team. In a demonstration, an interactive learning technique, the facilitator explains and shows the stages and their sequence for carrying out a procedure or an activity.

Steps:

1. Demonstrate the entire procedure from the beginning to the end.
2. Divide the procedure into parts and ask the participants to work on the individual stages of the procedure.
3. Demonstrate the entire procedure again and ask the providers to practice the entire procedure from the beginning to the end.

This is important during the first QI team meeting. If the team is unsure how to begin, or how to complete one of the steps, the coach should step in and demonstrate how it should be done.

Ask the participants:

What do you expect out a coach?

Write responses on flipchart.

Show the following three slides that explain the coaches’ roles and responsibilities and discuss.

Slides: Coaches’ Roles:

Coaches’ Responsibilities – 1
Coaches’ Responsibilities – 2

Ask the participants to follow the previously stated steps of a QI team meeting. Briefly review the steps with them.

Next, tell them they will be given a scenario and their task is to brainstorm causes of the problem in the scenario (i.e., root causes, solutions/change ideas), and develop an action plan. These steps should be clearly outlined in the minutes. Each group will then present a role play to the rest of the group, emphasizing the coaches’ role during the meeting. Make sure they follow the steps of the QI team meeting.

Divide participants into three groups; assign a coach to each group and ask them to practice how to coach using the scenarios below. Tell them they have 15–20 minutes to prepare.

When time is up, ask each group to present their role play and discuss each, in turn. Groups should begin by reading their scenario.

Points of discussion after the role play can include:

What was a correct demonstration of a coach’s role?
What was a wrong demonstration of a coach’s role?
Thoughts on how the group resolved their problem?
Thoughts on the group’s action plan?

Scenario 1:

Attendance at Kumbungu HF RCH has been low, compared with previous months. The QI team discussed expanding the number of outreach points and selected the chief change idea to implement—conduct a QI team meeting where this change idea is examined for the next course of action to be taken.

Scenario 2:

Attendance at Kumbungu HF RCH has been low compared with previous months. The QI team discussed expanding the number of outreach points and they selected the chief change idea to implement. In the team’s action plan, they decided that two of the community health nurses would lead this change; however, one CHN did not attend any outreach clinic that month. Conduct a QI team meeting where the team responds to this challenge.
**Scenario 3:**

Attendance at Kumbungu HF RCH has been low, compared with previous months. The QI team identified this problem. Act out the QI team as it discusses this problem, brainstorm possible change ideas, and develop an action plan.

**Summarize:** The coach is there to support the QI team. They attend meetings, listen to ideas and group discussions, and offer guidance and support, when needed. If the team encounters problems, the coach should intervene to help return the group to normal. It is important for the coach to attend the monthly meetings, especially in the beginning.
Session 8: Decision Making Process

Session Objectives
By the end of the session participants will be able to—

- Identify steps in the decision-making process.
- Determine what actions should be taken at the QI meetings.

Time: 45 minutes

Materials
- flipchart
- markers
- slides on decision making, QI meetings

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Decision-Making Process</td>
<td>Lecturette and discussion</td>
<td>45 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Decision-Making Process

Now that we’ve had the QI team meeting and learned about tools that can help make the creating change ideas process easier, the QI team must decide. How does the team choose which idea to implement? How can the coach help them reach a decision?

Show slide—Margaret’s Decision—and read the following scenario:

Margaret graduated from the University for Development Studies (UDS) this year. Now, she would like to join a master’s program in nutrition, but she does not know which university offers a good international nutrition program. She has collected information about the university from the following sources:

1. university website
2. students who graduated from the nutrition department
3. faculty who teach in the nutrition department.

She decided to go to the university in South Africa because—
1. It offers courses in her interest.
2. It is not expensive.
3. One of her relatives is now studying there, so she can share living costs.

Ask: What helped Margaret make her decision? Write the answers on the flipchart.

Show slide—**Decision-Making Process** - Information ▶ Discussion ▶ Decision Making

Compare the responses on the list to the decision-making process on the slide.

After the QI team members prepare a list of change ideas, what will help members decide which change idea they should select for testing?

Now show slide—**QI Meetings** on QI Team Meetings 1, 2 and 3.

Read through the different tasks that will take place at each QI team meeting.

What decisions are made at each meeting? How do the decisions differ from one meeting to another? Write the answers on the flipchart.

Some examples: First meeting:

- Select the chairperson and secretary.
- Select the gap/problem.
- Select the cause of that problem.
- Select the change idea to implement. Who is collecting data?

When to have next meeting second meeting:

- Continue with implementing that change idea or select another. Who is collecting data?

When to have next meeting third meeting:

- Continue with the gap or select a new one.
- Continue with implementing that change idea or select another.
- Who is collecting data?

When to have next meeting?

For QI, decision making is very important. The team must decide which problem or gap to target, what root cause to explore, and what solution to implement. These decisions must be made based on as much information as possible. Sometimes teams must collect data for the first month to know where the gap is. That is fine. More information will help team develop stronger change ideas.

**Summarize:** Making a decision requires information and an informed discussion. For the QI team, because so many people are working towards one cause, they need to be sure that they have all the information available and that the team discusses everything before they make a decision.

Show slide with quote: Do not Reinvent the Wheel - Steal Shamelessly, Share Senselessly.

Discuss:

- What do you think about this?
- How does this apply to making a decision?
• When it comes to change ideas, does the team have to work alone, or can it look to other facilities for support or to its coach for support?

Don’t forget to use the available resources—your coach is there for technical advice. Other facilities are also doing QI. Ask them what they are doing in their facilities that works, or is not working. There is no shame in implementing a solution that is working somewhere else.
Session 9: Understanding the Current System

Session Objectives
By the end of the session participants will be able to—

- Explain the difference between a process and a system.
- Explain the processes at their health facilities.

Time: 60 minutes

Materials
- flipchart
- markers
- slide—Understanding the Current System

Trainer Preparation
- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.
- Be able to clearly explain the process exercise.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
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<tbody>
<tr>
<td>1. Understanding Processes at Health Facilities</td>
<td>Lecturette and small group activity</td>
<td>60</td>
</tr>
</tbody>
</table>

Learning Activities

1. Understanding Processes at Health Facilities
Now that we’ve learned about QI team meetings and how to make a decision, we need to learn about how to create change ideas. To create good change ideas, we should look at the system of health care first. After we examine the system, we can begin to identify gaps and start to develop change ideas.

Show the slide—Inputs + Processes = Outcomes—and review.

Show the slide—Understand Work as Processes and Systems.

Have someone read the definition of ‘process’ and ‘system.’

Process: A sequence of steps when inputs from suppliers are converted into outputs for customers.
System: The total of all elements (including processes) that interact to reach a common goal.
What are the differences between these two words?

Process is just one part of a system. Think about a motor—the process the engine goes through to convert fuel into energy is just one part of making the motor go.

Ask: What is an example of a process?

Show slide of CWC and review.

Show and review the following two slides: Steps and Participants and Work as a Process slides.

Ask: Do you understand what a process is?

Ask participants to divide into groups—by district, sub-district, or facility—depending on the training. Ask each group to map the process of CWC at their facility, district, etc.

They should answer the questions, “What happens at this step?” and “What happens next?”

After the participants are in their groups, show slide—Drawing a Flow Chart and review.

Tell them they have 20 minutes to do this exercise.

When time is up, ask each group to present their process to the entire group.

After the presentations, and the different steps are clarified, show the next slide that shows CWC again.

Explain to the participants that knowing WHAT happens at each step is equally important.

Summarize:

Understanding the current system is critical for QI. After you map the system, the gaps become clearer; from there, you can select the issues you want to target. Putting some of the gaps into a fishbone diagram or root cause analysis will help the team develop a targeted solution.

Show slide—Principle: Most Problems are Found in Processes and Systems, Not in People.

Managed care means managing the processes of care, not managing physicians and nurses.

Discuss:

When working in QI, we often think that the problem is with the system staff. However, it is very rare that they are the ones at fault. Team work is an important part of QI because everyone comes together to alter the system; working as a unit to ensure that things are done properly. This is very important to remember.

Show slide—“Every system is perfectly designed to achieve the results it gets.” Paul Batalden

“Insanity: Doing the same thing over and over again and expecting different results.” Albert Einstein

Discuss:

Now that we have learned about the importance of understanding the systems we are working in, what does this quote mean to you?

Can we keep doing things the same way and except the quality of our services to improve?

Why or why not?
Session 10: Creating an Indicator

**DAY 3 SLIDES START HERE**

**Session Objectives**

By the end of the session participants will be able to—

- Identify the purpose of indicators.
- Classify the components of indicators.
- Create an indicator and identify sources of data for them.

**Time:** 120 minutes

**Materials**

- flipchart
- markers
- slides (day 3) on indicators and time series plotting (with data sets)
- notebooks and pencils with erasers for participants to chart graphs

**Trainer Preparation**

- Review the trainer notes several times.
- Familiarize yourself with the slides.
- Gather needed materials.
- Anticipate questions and prepare answers.
- Understand how to do and clearly explain all the exercises.

**Learning Activities Summary**

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Indicators</td>
<td>Lecturette, Case Study</td>
<td>60 mins</td>
</tr>
<tr>
<td>2. Plotting a Time Series</td>
<td>Exercise</td>
<td>60 mins</td>
</tr>
</tbody>
</table>

**Learning Activities**

**1. Introduction to Indicators**

After you understand the system, and the team has decided on a gap to target, how does the team track their progress? Creating an ‘indicator’ will help the team track their results related to a certain change idea.

**Ask:**

Do you know what an indicator is?

Do we see any in everyday life?
Motor indicators for fuel low or high, speed, turning right or left.

Body indicators: stomach growls when hungry; have headache and/or fatigue.

These indicators help you know what you are trying to achieve in your improvement goals.

Show and review slide—**Purpose of Indicators**.

1. Indicator is a measurement of the level of performance/achievements/outcome.
2. Indicator shows the position/state/level of program achievement (position where you are—indicated in numbers).
3. Indicator also helps show the measurement of progress/improvement.

Show slide—**Case Study**.

Ask a volunteer to read the following case study:

Margaret is a midwife working in a health center that has a very low attendance of pregnant women for ANC services. The record from home visit by CHV shows that there are 100 pregnant women in the community, but only 20 attend the ANC services. She plans to increase the number of pregnant women attending her clinic—from 20 to 50. She started collecting data on pregnant women attending the ANC clinic every month.

   a. What is the indicator?
      i. percentage of pregnant women going to ANC
   b. What is the numerator?
      i. 20 (women going to ANC)
   c. What is the denominator?
      i. 100 (pregnant women in the community)
   d. What is the percentage of women attending the ANC clinic?
      i. 20 percent (of pregnant women attending ANC services)
   e. What is the frequency of data collection?
      i. Monthly.

Work with the participants determine the answers to these questions. They may be nervous about the math, and need your support.

How do we create indicators? Show the slide—**Activities at a CWC**—about different activities that happen at the CWC.

Show the next slide—**Creating Indicators from GMP Processes/Steps/Activities**.

Ask participants to create indicators for different steps of CWC.

Read the answers as they come in.

Explain that indicators are done in percentages, because that is how we know how much of the general population we are reaching. Everyone understands that percentages are out of 100 percent—meaning everyone. A number isn’t in context and would be unclear to anyone who doesn’t know your community or facility well.

Show the slide—**Indicators of ANC Services**—and review.
Move to the next slide—Source of Data. We would need these numbers when we look at certain indicators. Where do we get the information to support these numbers?

**Summarize:**

We must measure what we are doing because, otherwise, we will not know if anything has improved. What you develop as indicators should be linked to your change idea goals. The numbers to support our indicators come from our CWC registers and tally books.

2. **Plot Time Series Chart - 60 minutes**

What happens after we collect data from our indicators? What do we do with the data? How can we tell if anything improved or if our change ideas are making an impact?

Show slide—**Indicator: Percentage of Children Correctly Weighed.**

Ask participants to take out their notebooks and draw a graph and plot the data given.

Review the important characteristics of a time series chart:

1. indicator
2. numerator
3. denominator
4. sources of data
5. person responsible
6. frequency of collection of data

Ask them to continue this exercise with the following slide—**Percentage of Women Attending ANC Services**

- Percentage of Women Attending ANC Services
- Percentage of Children Correctly Weighed
- Percentage of Growth Chart Completely and Correctly Filled
- Percentage of Caregivers Who Received Targeted Counseling

Observe the participants completing these graphs. Offer help as needed.

Move to the slide starting with—**Including Change Ideas on your graph.**

Ask participants to plot the data on a graph; but this time, at each point, write the change idea implemented.

Explain: Including the change idea at each point shows what the team implemented to reach the level of improvement they achieved. It is important to include change ideas on your graph, so that anyone looking at the graph knows what was done to reach that improvement.

**Summarize:**

After we create indicators, we use the data collected to know whether anything improved. To show these data, using a visual can show noticeable change. Remember key components of the time series chart: numerator, denominator, percent, indicator, sources of data.

Don’t be afraid to chart your data. Making mistakes is normal.

Share quote: “Quality improvement is a journey of many small steps.”
Principle: Achieve continual Improvement through small, incremental changes.

Discuss:

- What did we notice from the graph with change ideas?
- Was the team able to achieve 100 percent of their target right away?
- How many steps did it take for them to reach their goal?
Session 11: QI Timeline

Session Objectives
By the end of the session participants will be able to—

• Explain the timeline for the QI process and the related meetings.

Time: 30 minutes

Materials
• flipchart
• markers
• slides with QI timeline

Trainer Preparation
• Review the trainer notes several times.
• Familiarize yourself with the slides.
• Gather needed materials.
• Anticipate questions and prepare answers.

Learning Activities Summary

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Review of QI Team Meeting Process</td>
<td>Lecturette</td>
<td>30 mins</td>
</tr>
</tbody>
</table>

Learning Activities

1. Review of QI Team Meeting Process

QI is a year-long cycle. It starts now, with this training.

QI team meetings: We mentioned that meetings happen monthly. Every month, the QI team meets and develops an action plan for the coming month. Data are collected; at the end of every month, it is plotted on a graph to show improvement.

(After QI team orientation:)

Plan the first meeting. This is where you plan the system of CWC at your facility. Where is the gap? After it is identified, develop change ideas. Select one. Continue to meet monthly. Submit the monthly action plan and minutes to your coach; they will send it to the SPRING staff.

Learning session: Every three months, one to two members of each QI team meet and present the data they’ve collected over the last three months. Show the indicator, change ideas tests, and the improvement graph. This should happen three times per year, for three days each time.
Harvest meeting: Happens at the end of the QI year cycle, and lasts for three days. This is an opportunity for one to two people from each team to meet and present their tested change ideas, including the graph showing what worked and what didn’t work. All the ideas are gathered, and put into a [your district] QI packet, and submitted to the region.

Dissemination meeting: The region and district staff meet for one day and disseminate the information the district QI teams gathered; this is an opportunity to share the district’s QI packet.

Explain each of the remaining slides:

- QI Implementation Activities Timeline
- Important QI Team Next Steps
- Elements of QI
  “Every system is perfectly designed to achieve exactly the results that it achieves.”
- PLHIV flow mapping before QI intervention
- PLHIV Patient Flow After QI Intervention

Ask if there are any questions or comments.
### Annex 1: Training Agenda

#### DAY ONE

<table>
<thead>
<tr>
<th>Time</th>
<th>Sessions</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00–9:00am</td>
<td>Session 1</td>
<td>Introduction to Quality Improvement Training</td>
</tr>
<tr>
<td>9:00–10:00am</td>
<td>Session 2</td>
<td>What is Quality?</td>
</tr>
<tr>
<td>10:00–10:15 am</td>
<td>Tea break</td>
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</tr>
<tr>
<td>10:15–11:45am</td>
<td>Session 3</td>
<td>What is Improvement?</td>
</tr>
<tr>
<td>11:45–12:45pm</td>
<td>Session 4</td>
<td>PDSA Cycle</td>
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<tr>
<td>12:45–1:45pm</td>
<td>Lunch break</td>
<td></td>
</tr>
<tr>
<td>1:45–3:45pm</td>
<td>Session 5</td>
<td>QI Team Meeting</td>
</tr>
<tr>
<td>3:45–4:00pm</td>
<td>Tea break</td>
<td></td>
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<tr>
<td>4:00–5:45pm</td>
<td>Session 6</td>
<td>Well-Functioning QI Teams</td>
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<tr>
<td>5:45pm</td>
<td>Closing</td>
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#### DAY TWO

<table>
<thead>
<tr>
<th>Time</th>
<th>Sessions</th>
<th>Lessons/Topic</th>
</tr>
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<tbody>
<tr>
<td>9:00–9:15am</td>
<td>Recap of day one topics</td>
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<tr>
<td>9:15–10:15am</td>
<td>Session 7</td>
<td>Coaches Roles and Responsibilities</td>
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<tr>
<td>10:15–10:30am</td>
<td>Tea break</td>
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<tr>
<td>10:30–11:15am</td>
<td>Session 8</td>
<td>Decision Making Process</td>
</tr>
<tr>
<td>11:15–12:15pm</td>
<td>Session 9</td>
<td>Understanding the Current System</td>
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<tr>
<td>12:15–1:15pm</td>
<td>Lunch break</td>
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<tr>
<td>1:15–3:15pm</td>
<td>Session 10</td>
<td>Creating an Indicator</td>
</tr>
<tr>
<td>3:15–3:45pm</td>
<td>Session 11</td>
<td>QI Timeline</td>
</tr>
<tr>
<td>3:45–4:00pm</td>
<td>Summary of day’s lessons</td>
<td></td>
</tr>
<tr>
<td>4:00pm</td>
<td>Closing of training programme</td>
<td></td>
</tr>
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</table>