

Continuous Quality Improvement Toolkit

A Resource for Maternal, Infant, and Early Childhood Home Visiting Program Awardees

Module 1 Facilitation Guide: Introduction to CQI

Purpose/Goals: The purpose of this training module is to provide an overview of Continuous Quality Improvement (CQI) along with its utility and benefits. It also describes the difference between Quality Assurance (QA) and Quality Improvement (QI).

Time: About 45 minutes total (20 minutes of content and 25 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *QA vs. QI: What Is the Difference?* — This handout provides a brief overview of the content covered during the QA vs. QI portion of this module. The notes on Slide 18 direct the participants to the handout as a reference to use after the learning session.
- *QA vs. QI Quiz* — The quiz handout is an activity to differentiate between QA and QI. See instructions below on how to facilitate this activity.

General Topics Covered:

- What is CQI?
- Why do CQI?
- What is the difference between QA and QI?

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: What does quality mean? (Slide 7)

- At this point in the presentation, start a discussion about what quality means. There are no right or wrong answers. This activity allows the participants to begin thinking about their agency's internal culture of quality.

Activity: QA vs. QI Quiz (Slides 23-24)

- **Introduction:** This activity will allow participants to apply principles covered during the presentation to distinguish between QA and QI activities.
- **Time:** About 15 minutes.
- **Instructions:** Distribute the QA vs. QI Quiz handout. Read each question aloud, give a moment for participants to write an answer on their handout, and then ask the group to call out a response. When the slide appears, the red checks will not be visible. After the participants indicate their first answer, click "Enter" for the first check to appear. Only click once or multiple checks will appear. Use the facilitator notes to walk through the content and facilitate discussion.
 - Remember to pause after asking a question and allow participants to write an answer on their handout, and then respond as a group. After responses are shared, provide the correct response from the talking points. If a participant correctly identifies answers to the questions, reinforce his or her statements and reiterate the points.

Activity: QA and QI Experience (Slide 25)

- **Introduction:** Distinguishing QA and QI during implementation can be difficult. By reflecting on individual experiences, participants can identify how their agency can progress from QA towards QI.
- **Time:** About 10 minutes.
- **Instructions:** First, ask participants to fill out the two questions at the bottom of the QA vs. QI Quiz handout to get them thinking about QA and QI initiatives at their agency. Then, ask participants to work within individual agency groups, and request that they consider the questions on Slide 25 in the context of their specific agency. Give them about 5–10 minutes to discuss their responses as a group.
 - Remind participants that there are no right or wrong answers.

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Module 2 Facilitation Guide: Using Data to Drive CQI and Identify Topics

Purpose/Goals: The purpose of this training module is to help participants understand the importance of using data during CQI projects. It will cover data quality, identifying CQI topics, and using data to inform CQI work.

Time: About 40 minutes (20 minutes of content and 20 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *Using Data to Drive CQI and Identify Topics* — This handout provides a brief overview of the content covered during the Data Quality and Identifying CQI Topics sections.
- *Developing Run Charts* — This handout is used for the activity on Slide 22. This activity will help participants practice plotting data and drawing conclusions from their data. See instructions below for more information on facilitating this activity.

General Topics Covered:

- Data Quality
- Identifying CQI Topics
- Monitoring/Visualizing Data

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: Collecting High-Quality Data (Slide 8)

- Ask the participants to share instances of unsuccessful data collection that may have been incomplete, inaccessible, or not relevant. If participants need prompting, consider using these examples (these examples are also in the slide notes).
 - Incomplete data: If only some home visitors collect breastfeeding data when the child reaches six-months, it will be difficult to calculate an accurate outcome percentage. We won't know if the percentage is low because mothers aren't breastfeeding, or if it is low because the data are missing.
 - Inaccessible data: If the data system can only be accessed by administrative and evaluation staff, home visitors and other program staff are missing an opportunity to further understand the entry and reporting procedures and the methods used to collect data. Access to data systems and reporting enhances buy-in.
 - Not relevant data: If home visitors screen children for developmental delays every 6 months, but only the data from the last year of screening are included in the data reports and data are not available from more recent screenings, home visitors may not know whether the children are on target or may need a referral. Since data were collected but not used, this results in irrelevant data collection.

Activity: Developing Run Charts (Slides 22–23)

- **Introduction**: Participants will practice using run charts to plot and interpret their data.
- **Time**: About 15 minutes.
- **Instructions**: The data provided on Slide 22, which match the data on the *Developing Run Charts* handout, give the percentage of newly enrolled caregivers who were screened for depression by month for a given year. Ask participants to plot the data on the blank run chart in the handout and connect all the points with a line to create the run chart. Move to slide 23 and ask participants to interpret the results of the run chart and write their interpretations on the handout. After participants are given time to write their interpretation, facilitate a group discussion where individuals share their interpretations with the larger group. (Note: there are no right or wrong answers here.) Possible prompts include:
 - What is your interpretation of the results?
 - Where do increases or decreases occur?
 - What do you think happened to cause increases in the screening rates in the spring and again in the fall months?

There is an example interpretation of the PowerPoint in Slide 23 that you can share if necessary.

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Module 3 Facilitation Guide: Creating the CQI Culture and Forming a Team

Purpose/Goals: The purpose of this training module is to help participants understand the importance of creating an agency culture that supports CQI and how to form a team to carry out CQI activities.

Time: About 40 minutes (20 minutes of content and 20 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar and would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *Resources for Partnering with Families* — This handout provides strategies and resources for partnering with families in CQI work. The talking points on Slide 21 refer to this handout.
- *Partnering with Families in Continuous Quality Improvement: The Maternal, Infant, and Early Childhood Home Visiting Program tipsheet* — This tipsheet provides information on the importance of partnering with families in CQI work and provides strategies and tips for doing so. The talking points on Slide 21 refer to this resource.
- *Forming a CQI Team* — This handout includes important elements for participants to consider when forming a CQI team. The notes on Slide 23 reference how to use this handout to help complete the CQI team development activity.

General Topics Covered:

- Creating an agency culture that supports CQI
- Forming a team to carry out CQI activities

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: CQI Team Development (Slide 23)

- **Introduction:** This activity will guide participants in identifying staff within their agency who may fit roles within the CQI team.
- **Time:** About 20 minutes.
- **Instructions:** Ask participants to break up into their agency teams. Using the *Forming a CQI Team* handout, the participants fill in the names of individuals from their agencies who may fit in each role. Remind them this is just an activity and placing a staff member in a role does not mean he/she agrees to the assignment. Ask participants to consider the following when identifying individuals:

- Who are the most appropriate individuals to fit into each of the roles?
- What are some of the activities each role performs on the team? How will he/she contribute?
- Why is an individual qualified for the specific role?
- Are there gaps in CQI capacity among team members?

Blank spaces are included under team members for agencies to add other team members who may be a good fit for the CQI team. As teams consider individuals for each role, ask them to consider both the reasons why individuals would be a good fit for a role *and* the reasons why they may struggle. To help teams in identifying these capacity gaps, ask participants the following questions:

- For each team member, what are some capacity gaps or reasons a team member may struggle in a role?
- To what extent are team members familiar with CQI principles? Is the group level of capacity foundational, or more advanced?
- Does every team member have previous CQI experience?
- Are there any roles for which you have no qualified individuals?
 - If so, which ones? Why do you think you do not have an individual who meets the required capacity needs? How might you be able to fill that role?

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Module 4 Facilitation Guide: Creating SMART Aims

Purpose/Goals: The purpose of this training module is to learn how to identify, evaluate, and apply the key elements of a SMART (**S**pecific, **M**easurable, **A**ttainable, **R**elevant, and **T**ime-bound) aim and to develop a SMART aim for CQI efforts. This module provides learning opportunities to practice aim development.

Time: About 60 minutes (20 minutes of content and 40 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training requires a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may be provided to participants.
- *What Is a SMART Aim?* handout — This handout provides a step-by-step framework for developing a SMART aim. The talking points on Slide 28 reference how to use this handout to complete the activity.

General Topics Covered:

- Identifying elements of a SMART aim
- Evaluating SMART aims
- How to develop a SMART aim for CQI work

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: SMART Elements (Slides 10, 13, 16, 19, and 21)

- **Introduction:** This activity will give participants an opportunity to look at example aim statements and learn to identify the critical elements.
- **Time:** About 3–5 minutes per slide.
- **Instructions:** After discussing the respective slides for each SMART element, such as “Specific,” a slide with three examples of aim statements will follow. The participants will be asked to decide if each statement meets the criteria being discussed. For the first example, ask if the aim is “specific.”
 - When the slide with the three examples appears, the red checks will not be visible. After the participants indicate their first answer, click “Enter” for the first check to appear. Only click once, or multiple checks will appear.
 - Use the talking points for each slide to help facilitate discussion.

Activity: Evaluate This Aim (Slides 26 and 27)

- **Introduction:** This activity will give participants an opportunity to evaluate two different aim statements and learn to identify the key components of a good statement.
- **Time:** About 5 minutes per slide.
- **Instructions:**
 - First, read Slide 26 aloud for the participants. Use the language in the talking points as a guide for how to read and discuss this aim statement.
 - Remember to pause after asking a question and allow participants an opportunity to respond. If a participant correctly identifies answers to the questions, reinforce her/his statements and reiterate the points. If her/his language is not as clear as the statements provided in the talking points, use the talking points to clearly reinforce key points.
 - This is an incomplete aim statement for the reasons identified in the talking points. If participants struggle to see the flaws, highlight them and ask the participants to discuss as a large group why these missing components are so critical. For example, “by the end of the year” is vague. Ask the participants what “end of the year” could mean? Remind them that programs such as MIECHV define a program year as the fiscal year, not the calendar year. How likely would it be for everyone to have the same understanding?

- Next, read Slide 27 aloud. Follow the same process as before, using the talking points to discuss the aim statement.
 - In the example provided, the aim statement is a good one; use the talking points to help reinforce the reasons why.
 - If participants struggle to see the important differences between this aim statement and the last one, reinforce this aim as being more specific because it includes a precise date and a goal for improvement.

Activity: Create Your Own SMART Aim (Slide 28)

- **Introduction:** This activity will give participants an opportunity to develop an aim statement through a guided activity. Pass out the *What Is a SMART Aim?* handout.
- **Time:** About 15–20 minutes.
- **Instructions:** First, read the example scenario on the slide.
 - Use the information contained in the talking points to walk through the example included in the worksheet.
 - Ensure participants create a SMART aim statement that is different from the example in the worksheet.
 - If possible, have facilitators/coaches sit with each group to help teams work through the details of their statements.
 - Remind participants to stay focused on just the statement, and not potential solutions.
 - Once each team has walked through each step of the worksheet and developed its final SMART aim statement, come back as a large group and have each team share its statement. In larger groups, share only two to three example statements.
 - When teams report out on their statements, use each as an opportunity to highlight what was done well and what elements still need to be added or improved. For example, teams may have developed a statement that is missing key components. Use this as an opportunity to highlight learning opportunities, being careful not to criticize the statements. Remind everyone that this is new and time is needed to learn a new skill, such as developing a SMART aim.
 - When bringing the groups back together to discuss their SMART aims, see if someone comes up with the idea of including both initiation and 3-month exclusive breastfeeding. If nobody includes the idea “Of those who initiated breastfeeding,” highlight this idea for the group. Explain that since a mother can’t breastfeed at 3 months if she never initiates, and the initiation rate is not as high as it could be, initiation should be looked at first. The number of mothers who breastfeed at 3 months will increase if the number who initiate is increased. Some projects looking to increase breastfeeding rates might start with the population who initiated and work from there. In this case, there could be an increase in those who initiate, since 40 percent of the potentially eligible population is not initiating. This also gives more room later to develop projects that focus on all aspects from initiation through continuation, instead of just one area, such as continuation at 3 months.

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Module 5 Facilitation Guide: Understanding the PDSA Process and Measurement

Purpose/Goals: The purpose of this training module is for the participants to learn about how to implement the Plan-Do-Study-Act (PDSA) cycle to guide the CQI process.

Time: About 100 minutes (30 minutes of content and 70 minutes of activities).

Format: This presentation is given in person but can also be delivered via webinar if necessary. The recommendation is for participants to sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training requires a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone. To complete the Coin Spinning Activity, four coins of different sizes and a timepiece are needed for each group.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *The PDSA Cycle: Step by Step* handout — Within each stage of the PDSA cycle, there are several action steps to guide participants through the process. This handout, referenced on Slide 15, is a reference document for independently developing PDSA cycles.
- *Coin Spinning Game Worksheet* — This handout is used for the Coin Spinning Game and is referenced on Slides 17 and 18.
- *PDSA Ramps* Handout — This handout provides tips and examples for linked tests of a change strategy, also referred to as PDSA ramps. The handout provides tips, an example, and a worksheet that can be helpful for planning future PDSA cycles. It is referenced on Slide 36.
- The *PDSA Cycle Worksheet: Example* and the blank *PDSA Cycle Worksheet* walk participants through each stage of the PDSA cycle. The *PDSA Cycle Worksheet: Example* illustrates how to complete the worksheet. The blank worksheet provides a template for participants to plan their own PDSA cycle. Slide 37 includes notes on how to facilitate the completion of the handout.

General Topics Covered:

- The PDSA cycle and explain why it is useful
- Three types of measures for PDSA cycles
- How to conduct rapid improvement cycles

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: Example of Change Strategies: Family Retention (Slide 9)

- **Introduction:** This activity guides participants in how to increase family retention through three examples of change strategies.
- **Time:** About 10 minutes.
- **Instructions:** Present the potential family retention innovations to the participants and ask them to think about how each innovation may lead to improvement.
 - Ask participants to select one change strategy and volunteer to provide a rationale as to why the change strategy will help retain families.
 - If the example and explanation given are sound, reinforce the key points and thank the person for sharing.
 - If the example and explanation do not fully explain why the change strategy would lead to family retention, ask the participants followup questions to help him/her think through the underlying logic. For example, if the participant selects “Texting to support the family’s goals” and he/she states, “The family will feel more supported,” you can ask the following questions:
 - Why would feeling supported matter for retention?
 - Why would you text rather than email or call the family member? What is unique about texting?
 - If texting is a good option because it follows how the family members communicate, how does this lead to their retention in home visiting?
 - Is it possible that at first the family does not value home visiting? If so, is it possible that texting with the family member to support their goals increases their perceived value of home visiting, thus reducing the likelihood the family will leave?

Activity: Coin Spinning Game (Slides 17 and 18)

- **Introduction:** This activity demonstrates how PDSA cycles work and how data can be easily collected and charted. By making predictions about spinning coins, participants learn more about the experimentation process, why predictions are made, and why data are recorded. Please watch the [youtube video](#) prior to facilitating this session for more guidance. If the link here or on the slide does not work, copy the link (<https://www.youtube.com/watch?v=3U9lLiPOhtM>) and paste it into your browser.

- **Time:** About 20 minutes (5 minutes to introduce the game, 10 minutes to play the game, 5 minutes to debrief).
- **Instructions:** Ask participants to break into agency teams of four to six for this activity. Briefly introduce the activity and its objectives.
 - Provide each team with four coins of different sizes and the *Coin Spinning Game Worksheet*.
 - Have the teams designate one person to be the time keeper. This person needs a watch with a second hand or a smartphone with a stopwatch function.
 - Review the *Coin Spinning Game Worksheet* with the teams.
 - Plan — Develop a plan to test the change strategies and predict what you expect to happen.
 - Do — Execute the change strategy as planned. Record the observations.
 - Study — Document similarities and differences between what was predicted and observed.
 - Act — Decide whether to adapt, adopt, or abandon the change strategy.
 - Remind teams to document the results on the run chart at the bottom of the page.
 - Ask for questions, then provide 10 minutes to play the Coin Spinning Game. Walk around to ensure that teams understand and are completing the *Coin Spinning Game Worksheet* as intended.
 - Debrief — Reconvene the teams to debrief the game using the following questions:
 - What brought you to the longest spin?
 - Creativity — Tried spinning on different surfaces (e.g., table, notepad, floor).
 - Theory — Who was the best spinner? Which coin spins the best?
 - Ability to formulate and ask questions — Explored assumptions without judgment.
 - How many tests did your team run?
 - How much data did you collect? How many data points are on your run chart?
 - For teams that completed the run chart, ask “Were you surprised at how quickly you could collect the data and fill out a run chart?”
 - For teams that did not complete the run chart, ask “In the real world, if multiple change strategies are tested and a change is documented, how would you be able to tell what steps you took to get there?”

Activity: What Type of Measure Quiz (Slide 27)

- **Introduction:** This activity helps participants identify process, outcome, and balancing measures. All PDSA cycles should include at least one measure of each type. When the slide appears, the red checks will not be visible. After the participants indicate their first answer, click “Enter” for the first check to appear. Only click once, or multiple checks will appear. Use the facilitator notes with each slide to walk through the content and facilitate discussion.
- **Time:** About 10 minutes.
- **Instructions:** Present the following SMART aim for smoking cessation to the audience: “By October 1, 2018, 10 of the 20 primary caregivers who reported smoking at enrollment will quit smoking within 6 months of enrollment.” Next, present each measure that is associated with the smoking cessation project and ask audience members to identify whether the measures are process, outcome, or balancing measures.
 - Alcohol use — This is a balancing measure, as decreasing tobacco use may cause an increase in other substance use. Monitoring other substance use to make sure that alcohol or drugs are not being substituted for tobacco is important.

- Number of quitline referrals — This is a process measure; referral to a quitline is a change strategy that can be tested to determine whether it increases the likelihood that primary caregivers will quit smoking.
- Number of primary caregivers who quit smoking within 6 months of enrollment — This is an outcome measure, and is the primary measure of change to determine whether change strategies are successful.
- Number of home visitors trained in motivational interviewing — This is a process measure; motivational interviewing is a change strategy that can be tested to see if it increases the likelihood of smoking cessation.
- Number of home visits attended — This is a balancing measure, as the primary caregiver may reduce or stop attendance at home visits if he/she feels too much pressure from his/her home visitor to quit smoking.

Activity: PDSA Group Work (Slide 37)

- **Introduction:** This activity guides participants through planning their own PDSA cycle using the *PDSA Cycle Worksheet* and SMART aims created in the previous module.
- **Time:** About 30 minutes.
- **Instructions:** Ask participants to break up into their respective agency teams of four to six participants. Ask participants to fill out the blank *PDSA Cycle Worksheet*, using the *PDSA Cycle Worksheet: Example* as necessary. You may choose to walk through the example as a group if you think that would be helpful for the participants.
 - Use the SMART aim statements created in the last module to develop this PDSA cycle.
 - Provide participants with 15 minutes to complete the blank PDSA worksheet.
 - Have participants complete the PDSA worksheet, focusing on the plan section. Encourage participants to
 - Develop a timeline for the initial PDSA.
 - Think through tasks necessary to carry out the change strategy and who will be responsible for those tasks.
 - Predict what will happen and how the team will measure whether the predictions are accurate.
 - Discuss a potential next PDSA cycle.
 - Reconvene the groups. Invite a representative from each team to share its planned PDSA cycle (timeline, scale, next cycle). Ask the following:
 - How has the team incorporated the “Power of One” into its PDSA cycle and ramp?
 - For teams that are proposing to start on a larger scale, ask the representative to elaborate on why the team thought it was necessary to start larger: “What would it look like to start with testing with just one family?”

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Module 6 Facilitation Guide: CQI Tools I—Process Maps

Purpose/Goals: The purpose of this training module is to learn how to use process maps as a tool for CQI and how to implement process maps to support the CQI process.

Time: About 50 minutes (30 minutes of content and 20 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency team in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone. To complete the Process Mapping Activity, sticky notes and a white flip chart board or large wall space are needed.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.

General Topics Covered:

- Purpose of a process map
- When to use a process map
- Developing a process map

Introduction to PowerPoint Activities or Participation. When the icon below appears, participants will be engaged.



Activity: Process Mapping Activity (Slides 27 and 28)

- **Introduction:** This activity provides participants with an opportunity to develop a process map in small groups.
- **Time:** About 20 minutes.
- **Instructions:** Present the process mapping activity slide to the groups and walk through the instructions presented in the talking points. Briefly review symbol definitions and leave that slide up during the activity. Ensure that there is sufficient space (e.g., flip charts or a large wall) for visual representations of the processes. Have participants use flip charts, post-it notes, or other materials that allow the group to depict its process map and easily make changes. Allow 15 minutes for groups to develop their process maps.
- **Debrief:** After the groups complete their process maps, move to Slide 28 and review the debrief questions included in the talking points with the group.
 - If participants struggle to define the process map boundaries, have them review the process with the larger group and ask the group to suggest places to start and stop the process map.
 - If participants created a high-level process map, ask some probing questions:
 - What additional detail is needed to fully explain the process?
 - Who has the detailed information?
 - Did the group role play? If not, how could role playing help?
 - Engage the participants in a discussion about the utility of process maps. Highlight comments that show the value and utility of the process maps.
 - How did process mapping change participants' views of the processes?
 - How will participants use process maps in the future?

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Module 7 Facilitation Guide: CQI Tools II—Root Cause Analysis Tools

Purpose/Goals: The purpose of this training module is to learn how to conduct root cause analyses, using the 5 Whys, Brainstorming, and Fishbone Diagram tools.

Time: About 50 minutes (20 minutes of content and 35 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency team in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *5 Whys* — This handout is a quick, easy-to-use tool to help determine root causes. The notes on Slides 11 and 12 refer to this handout.
- *Fishbone Diagram* — The handout provides information on how to create a Fishbone Diagram to determine root causes and target change strategies to test. A Fishbone Diagram template is provided for participants to capture their ideas. The notes on Slides 18 and 19 refer to this handout.

General Topics Covered:

- Root cause analysis and three root cause analysis tools
- How to analyze findings to determine where to focus CQI efforts

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: 5 Whys (Slides 11 and 12)

- **Introduction:** This activity gives participants the opportunity to practice the 5 Whys root cause analysis technique.
- **Time:** About 15 minutes.
- **Instructions:** Pass out the *5 Whys* handout and ask participants to break into agency teams of four to six per table to complete the activity. Review the steps listed on the 5 Whys slide.
 - **Step 1:** Start by identifying a problem for which the root cause is unknown.
 - **Step 2:** Ask the first “why” question.
 - **Step 3:** Go back a step using another why question. Continue to do this until it is no longer possible to think of a response to the last why question.
 - **Step 4:** The last response represents the root cause.
- **Debrief:** After the groups complete the 5 Whys exercise, move to Slide 12 and lead the group through the debrief questions.
 - How many steps did it take to discover the root cause?
 - Did the team have any difficulty coming up with potential responses to the why questions?
 - Did the team gain new insight into the problem? If not, why not?
 - When would this tool be helpful in improvement efforts?

Activity: Fishbone Diagram (Slides 18 and 19)

- **Introduction:** This activity gives participants an opportunity to develop a Fishbone Diagram. Participants will also analyze results to select a potential area for CQI.
- **Time:** About 20 minutes.
- **Instructions:** Pass out the *Fishbone Diagram* handout and ask participants to break into agency teams of four to six per table to complete a group activity. Walk through the steps on Slide 18. It may be helpful to review the components of the fish again (e.g., the problem statement is the fish head, categories are the ribs, etc.). Encourage teams to use the 5 Whys or Brainstorming tools to identify root causes. If teams finish early and have time to consider potential change strategies, suggest they use the Brainstorming technique to do so.
- **Debrief:** After the groups complete the Fishbone Diagram, move to Slide 19 and lead the group through the questions.

- Prior to completing the diagram, what were teams' assumptions concerning the root cause for the stated problem?
- How did assumptions change after completing the diagram?
- How did teams identify the root cause(s) on which to focus?
- How might teams use this process in future CQI work?

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Module 8 Facilitation Guide: CQI Tools III—Key Driver Diagrams

Purpose/Goals: The purpose of this training module is to learn how to create a Key Driver Diagram and use the diagram to identify change strategies to test.

Time: About 40 minutes (20 minutes of content and 20 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training will require a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may also be provided to participants.
- *Key Driver Diagram* Handout — This handout describes creating a Key Driver Diagram to identify drivers that influence the identified SMART aim and to identify change strategies to test what may impact the drivers. An example of a Key Driver Diagram is provided for participants to capture their ideas. The notes on Slides 20 and 21 refer to this handout.

General Topics Covered:

- Key Driver Diagrams basics
- How Key Driver Diagrams are used in CQI
- How to create Key Driver Diagrams

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Participation: Key Driver Diagram (Slides 20 and 21)

- **Introduction:** This activity gives participants an opportunity to create a Key Driver Diagram. Participants will identify a SMART aim and link it to primary drivers and change strategies to test.
- **Time:** About 20 minutes.
- **Instructions:** Ask participants to break up into agency teams to complete a group activity. Pass out the *Key Driver Diagram* handout and walk through the instructions presented in the talking points on Slide 20. Review the tips and best practices for developing the Key Driver Diagram again (e.g., use neutral language to develop key drivers, engage subject matter experts to identify potential change strategies, and select evidence-based change strategies where possible). Encourage teams to use the Brainstorming or 5 Whys techniques to identify key drivers. Suggest that teams consider which change strategy they would like to test, and provide a rationale for the selection.
- **Debrief:** After the groups complete the Key Driver Diagram, bring them back together and lead the entire group through the debriefing questions on Slide 21.
 - Which subject matter experts could teams include in the development of the Key Driver Diagram?
 - What resources could teams use to research evidence-based change strategies?
 - What was the most challenging part of developing the Key Driver Diagram?
 - What change strategy will the team test? Provide a rationale for how the change strategy will influence the outcome.

Continuous Quality Improvement Toolkit

A Resource for Maternal, Infant, and Early Childhood Home Visiting Program Awardees

Module 9 Facilitation Guide: Reliability Concepts and Sustaining Gains

Purpose/Goals: The purpose of this training module is to understand the concept of reliability as it applies to CQI and how to use reliability concepts to sustain gains realized by CQI efforts. This module provides learning opportunities to understand levels of change strategies and how they can be used to continue maintaining positive gains.

Time: About 55 minutes (20 minutes of content and 30 minutes of activities).

Format: This presentation is intended to be given in person but can also be delivered via webinar if necessary. We recommend that participants sit with their agency team in small groups of four to six per table. Coaches should float between tables and connect with each agency team.

Equipment: An in-person training requires a laptop and projector to deliver this presentation. This training can also be conducted via Webinar, which would require a Webinar service, laptop, and telephone.

Materials:

- PowerPoint slides — The notes section of the PowerPoint slides contains talking points to use during the presentation. A copy of the slides may be provided to participants.
- *Change Strategy Intensity Examples* — This handout provides examples of change strategies at each level of intensity. It is referred to in Slides 10, 12, and 14.
- *Change Strategy Intensity Worksheet* — This handout is for an activity on Slide 22 that includes data from a run chart. It asks participants to predict the changes that resulted in the data.

General Topics Covered:

- Reliability in CQI
- Changes at multiple levels of intensity
- The importance of monitoring data
- How to maintain improvement

Introduction to PowerPoint Activities and Participation. When the icon below appears, participants will be engaged.



Activity: Change Strategy Intensity Examples (Slides 10, 12, and 14)

- **Introduction:** This activity will give participants an opportunity to understand change strategies at each level of intensity and practice applying them to a home visit completion scenario.
- **Time:** About 5 minutes per slide (15 minutes).
- **Instructions:** Pass out the *Change Strategy Intensity Examples* handout to the participants. Read the example on the slide aloud, and then ask participants to identify possible change strategies at each level of intensity within the context of increasing the rate of home visit completion. Use the examples in the handout for ideas.
 - Use the facilitator notes for the slides to walk through the content and encourage discussion.
 - Examples of change strategies are included in each slide, but facilitators and participants are encouraged to identify additional examples independently.

Activity: Change Strategy Application – Cherryville Depression Screenings (Slide 22)

- **Introduction:** This activity will give participants an opportunity to develop change strategies at various levels of intensity while monitoring outcome data.
- **Time:** About 15 minutes.
- **Instructions:**
 - Pass out the *Change Strategy Intensity Worksheet* and ask participants to break into agency teams of four to six per table.
 - Remind participants that during Module 2 they created this run chart and then brainstormed some initial ideas about what led to the improvements.
 - Ask participants to identify one change strategy at each intensity level that could have been used to support or sustain the Cherryville Home Visiting Agency's increase in rates of depression screenings. As participants identify change strategies, they should indicate where on the run chart the strategies were implemented.
 - Allow participants 10 minutes to work in their groups to complete the worksheet.
 - Bring the group back together and invite someone from each team to share change strategies at each level and the associated timing on the run chart.