

Creating a Continuous Quality Improvement Plan

CQI Brief

Design Options for Home Visiting Evaluation

July 2016

Maternal, Infant, and Early Childhood Home Visiting¹ (MIECHV, also known as the Federal Home Visiting Program) grantees are required to submit a continuous quality improvement (CQI) plan.² The plan helps grantees assess their CQI efforts and use the lessons they have learned to inform next steps.

This brief can help you develop a CQI plan and communicate it to others in your organization. It explains what the plan should cover and includes a sample outline and template for drafting your plan.

What is a CQI plan?

A CQI plan is an organization's roadmap for improving its services, processes, capacity, and outcomes.³ It guides the organization and its key collaborators and stakeholders through the process of monitoring services and using data as part of everyday practice to improve outcomes. A CQI plan allows you to describe your approach to CQI, assess your capacity to carry out CQI, summarize past CQI efforts, and identify lessons learned.

States, territories, tribes, communities, and children and families have unique needs. Your CQI plan should therefore be flexible and specific to your organization while including the following general components:

- Description of an organizational system and support to maintain ongoing CQI work
- A clear guiding mission for the CQI work
- Measurable goals and objectives to improve outcomes
- Changes that will be disseminated to local implementing agencies (LIAs) for testing and adaptation
- CQI methods and tools you will use
- Measures and a data collection plan for tracking, assessing, and guiding improvement
- Process for monitoring the CQI plan and assessing progress

Design Options for Home Visiting Evaluation (DOHVE) provides research and evaluation support for the MIECHV Program. DOHVE is funded by the Administration for Children and Families (ACF) in collaboration with the Health Resources and Services Administration (HRSA).

Organizational System and Support

The structure of the CQI team can vary from one organization to another. The CQI plan should describe the team and define roles, responsibilities, and tasks. Exhibit 1 provides considerations for developing a team to support CQI.

Support for CQI Teams

Teams function best when they are confident that their organization’s leaders support them.³ Your CQI plan should describe how you will support the state (or territory) and local CQI teams to strengthen CQI competencies. For example, your state team may have expertise to share with local teams about CQI models and methods, such as applying the Model for

Improvement (including Plan-Do-Study-Act cycles) or LEAN/Six Sigma.

Support for state CQI teams may include the following:

- Ensuring sufficient staffing and time to support local teams
- Providing ongoing training and coaching in advanced CQI methods
- Providing opportunities for peer-to-peer learning with other CQI experts
- Linking with the DOHVE team for grantee-level coaching and training

Exhibit 1. Roles, Responsibilities, and Tasks for Supporting CQI

Roles, Responsibilities, and Tasks	Examples
Who is accountable for CQI processes at the grantee level? <ul style="list-style-type: none"> • Data collection and analysis • Team coaching • Dissemination • Ongoing improvement, planning, and coaching 	Often, this will be a CQI team that includes members such as a grantee CQI specialist and a state data manager.
Who is responsible for ongoing improvement and planning within the local CQI teams?	Key members of local teams may include an LIA administrator, data manager, supervisor, home visitor(s), and clients.
What are the timeline and methods for reviewing and sharing findings?	<ul style="list-style-type: none"> • Monthly, quarterly • Monthly Webinars facilitated by the state team to review data and share changes tested with local teams
How will you provide ongoing training and support to LIAs?	<ul style="list-style-type: none"> • Ongoing learning collaborative • Virtual training • Coaching sessions • Telephone support as requested
How will you engage community and family members in the CQI work?	Parents and partners join local CQI team
What human and financial resources are available to sustain CQI work?	Project budget and staffing for CQI activities
How will you recognize and celebrate results?	<ul style="list-style-type: none"> • Monitoring of monthly collaborative run charts • Attainment of SMART aims • Monthly newsletter with highlights of results from teams • Annual home visiting conference with team presentations, recognition, and celebration
How will you share successful strategies with other programs?	<ul style="list-style-type: none"> • Online forum • Newsletters • Webinars • Conferences

Support for local CQI teams may include the following:

- Building system leaders for CQI at the LIA level
- Allocating time to participate in CQI work
- Staying abreast of innovations
- Providing ongoing training and coaching in CQI methods
- Providing opportunities for peer-to-peer learning (e.g., collaborative, office hours)
- Exercising authority to remove barriers to full participation and innovation

Local Structures and Supports

You may share guidance with LIAs on efforts such as forming local CQI teams as they work to create local capacity. Local teams should have members with different roles and perspectives on the processes identified for improvement. When possible, they should include input from the end user—the family.

Examples of local team members include the following:

- Agency-level lead
- Day-to-day supervisor
- Data coordinator/analyst
- Home visiting supervisor
- Home visitor(s)
- Family member(s)

Organizational Challenges

Early childhood services are interconnected. Improved outcomes in home visiting often depend on addressing external challenges and barriers such as the following:

- Conflicting eligibility criteria
- Inconsistent interpretations of regulations
- Competition between service agencies
- Fragmented delivery systems that provide services for the same families in different institutional structures
- Services that put the responsibility on families to navigate rather than on the service providers to communicate and coordinate

To implement improvements and innovations successfully, you should demonstrate both the will and the organizational capacity to ease such barriers. In the past decade, many states have used their early childhood comprehensive system councils, early childhood state advisory councils, and/or governors' early childhood cabinets to solve problems that previously seemed intractable.

The Bottom Line: Plan Requirements for Organizational System and Support

- List the participating LIAs and describe how program participants will be involved.
- Identify state-level staff that will support LIAs in their CQI work and describe the support.
- Identify how data will be used for ongoing learning (e.g., as part of monthly state-facilitated meetings with local teams to review progress).
- Identify areas of priority support the DOHVE team could provide to state-level staff.
- Identify organizational challenges, if any, that could be barriers to CQI efforts.

CQI Mission

Your CQI plan should state the guiding mission of your organization's CQI work to identify the overall change you want to see in your programs. For example, you may decide to focus on improving duration of breastfeeding across home visiting programs.

Explain how you identified your CQI mission:

- Did you gather information from baseline data, self-assessment, surveys, or other formal methods to identify gaps in services?
- Did you include consumer input to identify areas that need improvement, and if so, how?
- How does your mission align with MIECHV priorities?
- How do you generate support for improvement work?

Your plan should also identify CQI topics that will be addressed at the LIA level and align with your mission.

The Bottom Line: Plan Requirements for CQI Mission

- Include a list of topics of focus for each LIA.
- Explain why those topics were chosen and how they align with state priorities.

Goals and Objectives

Your CQI plan should succinctly describe your CQI goals and objectives for the year, which should align with your CQI mission and be informed by program data.

Goals identify your general intentions, such as “Improve family retention.” Objectives are clear and measurable targets set to meet the overall goal(s).

The objective(s) for each goal must be SMART—identifying what you are trying to accomplish, how much, and by when (see box below). That will help you determine whether the objectives have been met at the end of the year.

For example—

By July 31, 2017 (*by when*), we will retain 65 percent (*how much*) of all enrolled families for 3 months or more (*what you are trying to accomplish*).

SMART Aims Are—

Specific: Ensure objective is defined and clear.

Measurable: Check for a clear benchmark and target.

Achievable: Set an objective that can reasonably be attained.

Relevant: Ensure objective is agreed upon by the team and aligns with values and mission.

Timely: Set timeframe for meeting the objective.

Source: Home Visiting Collaborative Improvement and Innovation Network (HV COIIN)

Many organizations find it useful to set 90-day goals and track quarterly progress toward accomplishing annual objectives. A limited set of measures (e.g., 5–10) allows data to be displayed and reviewed at least monthly to spur reflection and testing of new ideas.

The Bottom Line: Plan Requirements for Goals and Objectives

- Include SMART aims for your CQI work.

Changes to Be Tested

Your CQI plan should describe the changes teams will make to achieve the CQI goals and objectives, and how teams will test the changes to adapt them to their local context. The changes should reflect practices that have already been shown to be effective or promising in the field or that build off of your evaluation findings. If your changes need further input and development, describe how you will accomplish that.

Testing cycles (Plan-Do-Study-Act) can generate knowledge quickly and minimize risk that a change will have unintended effects or create resistance.

Examples of Changes to Address Family Retention

Gather feedback from families on the first 3 months of enrollment using a check-in card with guided questions:

- “What has made home visiting meaningful up until now?”
- “What might make it hard for you to continue to participate in the home visiting program in the next few weeks?”
- “What do you need in order to continue?”

Try a variety of communication strategies to enhance the relationship between the home visitor and family:

- Motivational interviewing
- Active listening
- Texting to support family’s early goals (“how is it going?”)

Develop family service plans that focus on one or two key goals identified by the family.

You will need to evaluate the changes and identify the ones that are most promising in leading to improved outcomes. Then you will disseminate those changes across LIAs through mechanisms such as an online forum, monthly reports, and monthly Webinars.

The Bottom Line: Plan Requirements for Changes to be Tested

- Include a description of changes to be tested based on evidence-based and/or promising practices.

Methods and Tools

Your CQI plan should identify the CQI methods and tools and you will use. Tools may include benchmarking, fishbone diagrams, root-cause analysis, process mapping, and key driver diagrams. Several widely used methodologies are shown below (exhibit 2).

The Bottom Line: Plan Requirements for Methods and Tools

- Describe your CQI methods and tools.

Measurement and Data Collection

Your CQI plan should describe how your organization will measure improvement and how you will collect, monitor, and analyze data.

Measures

To assess whether your changes lead to improvement, identify measures that address specific outcomes. Measurement for improvement seeks to gain knowledge to improve practice and adapts the intervention as new knowledge is generated. Measurement for learning and process improvement does the following:

- Brings new knowledge into daily practice
- Relies on many sequential, observable tests
- Gathers "just enough" data to learn and complete another cycle
- Involves a series of small tests of changes to accelerate the rate of improvement
- Collects, analyzes, and reviews data in an ongoing way (at least monthly)

A balanced set of measures will include outcome measures (impact on population) and process measures (system performance). For example, an outcome measure might be "The percentage of families retained 3 months after enrollment." A process measure might be "Among families for whom weekly or biweekly visits are expected, the percentage of families with 21 or more days between visits." This is based on the theory that missed or infrequent visits are an early sign of disengagement that predicts dropout.⁴

Exhibit 2. CQI Methodologies

Methodology	Description
Plan-Do-Study-Act (PDSA)	Develop plan, implement, study results, act on lessons learned
Six Sigma	Two models: Define, measure, analyze, improve, control (to examine existing processes) Define, measure, analyze, design, verify
FADE	Focus, analyze, develop, execute, evaluate
Model for Improvement	Ask three questions to identify goal, measures, and changes; uses PDSA cycles

Data

Describe your strategy for collecting, entering, storing, analyzing, presenting, and interpreting measurement data at frequent intervals (e.g., monthly). Identify methods for clearly communicating with state and local team members about how data will be used to inform practice. Describe how you will incorporate learning based on data into staff training and technical assistance for LIAs. Transparency may encourage participation by assuring staff that the data are not being collected to monitor them.

Data Collection and Storage

The measures you select might be measures LIAs already collect for reporting purposes, or they might be measures LIAs will administer to test a change. In either case, the CQI plan should describe how you will collect and store the data so they can be easily analyzed and frequently shared.

Data Analysis

Describe your analytic methods. For each data source, identify the method that will be used to analyze it, the kind of information the method will produce, and how the information relates to your goals.

Data Interpretation

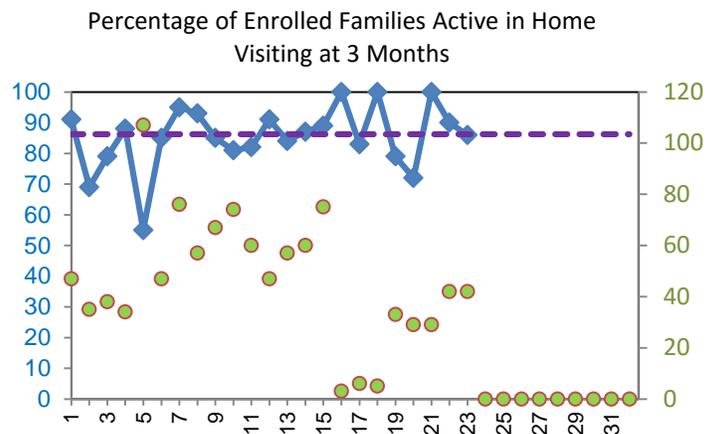
Describe how LIAs will receive feedback in a timely manner (e.g., monthly) to keep the improvement process on track. Explain who will receive which data reports. Sharing data transparently and frequently helps facilitate learning and rapid spread of improvements.

Specify how LIAs are expected to use the reports and what ongoing support will be provided to ensure that data are used to make improvements (e.g., training and orientation). The CQI plan may also describe succinct, easy-to-interpret formats for sharing data. Visual presentations of data, such as graphs or run charts, may be an effective way to quickly communicate results (see exhibit 3).

Findings from data analysis can suggest whether a particular change is related to improvement. Describe your plan to modify the process and continue testing changes when findings suggest that a change is not working. Also describe your plan to

implement and spread changes that did work so they become standard, permanent processes.

Exhibit 3. Sample Run Chart



Left axis: Scale for blue diamonds indicating percentage of enrolled families active in home visiting at 3 months

Right axis: Scale for green dots indicating percentage of families enrolled 3 months ago

X axis: Date of data submission and number of LIAs submitting data each month

Source: HV CoIIN

Communication

Describe how you will regularly communicate your work throughout the organization. It is important to communicate with all staff, including state-level partners, LIA leadership, frontline staff, and families. This will keep all parties in the home visiting system actively engaged in the improvement work. Plan regular updates about CQI plan implementation, training activities, and improvement charting.

Document CQI progress using activity logs, issue identification logs, meeting minutes, and other tools. Communicate your progress using methods such as the following:

- Kickoff meetings or all-staff meetings
- Local learning sessions (for states conducting quality improvement collaboratives)
- Storyboards or posters displayed in common areas
- Routine sharing of your organization's CQI findings and lessons learned

- Emails, memos, newsletters, or handouts
- Online sharing platforms
- Informal communication

The Bottom Line: Plan Requirements for Measurement and Data Collection

- Describe how LIAs will collect, store, and track measurement data.
- Describe how teams will be supported in monitoring progress toward their goals, and identify strategies for mid-course correction.
- Identify strategies to spread CQI learning to other stakeholders.

Grantee Monitoring and Assessment of Progress

All grantees should routinely monitor their progress and learning based on the implementation of their CQI plans. They should use lessons learned from implementation to assess CQI activities moving forward. For technical assistance with developing your CQI plan, contact your HRSA PO and DOHVE Liaison.

The Bottom Line: Plan Requirements for Grantee Monitoring and Assessment

- Include a list of active and completed CQI projects at the state level.
- Report on results, such as progress on SMART aims, successes, and lessons learned.

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² Funding Opportunity Announcement HRSA-16-025

³ HRSA Quality Toolkit. Quality Improvement. Available at <http://www.hrsa.gov/quality/toolbox/methodology/qualityimprovement/index.html>

⁴ HV COIIN Charter, 2015. Available at <http://hv-coiin.edc.org/sites/hv-coiin.edc.org/files/HV%20COIIN%20Family%20Engagement%20Charter%202016.pdf>

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Appendix A: Sample CQI Plan Outline

1. Organizational System and Support

- a. List LIAs or CQI teams that will participate in CQI activities and the extent to which LIA management supports direct involvement in CQI activities.
- b. Describe the extent to which program participants are included in CQI teams and encouraged to lead quality improvement work.
- c. List state/territory personnel assigned to CQI teams, including their relevant experience and skills.
- d. Summarize financial support for CQI work, including allocation of resources and staff time at the state/territory and local levels.
- e. Describe how you will generate buy-in and support for your CQI work.
- f. Describe training and coaching activities planned to strengthen CQI competencies for state/territory and local teams.
- g. Describe how you will incorporate learning based on data into staff training and technical assistance provided to LIAs.
- h. Highlight training or coaching the DOHVE team could provide to the state/territory team.
- i. Identify organizational challenges, if any, that could be barriers to CQI efforts and include an approach to addressing those challenges.

2. CQI Mission

- a. Include topic(s) of focus for each LIA, a justification for why those topics were selected, and an explanation of how those efforts will align with state/territory priorities.

3. Goals and Objectives

- a. Include SMART aims for the CQI projects proposed or underway at each LIA.

4. Changes to Be Tested

- a. Describe evidence-based or promising practices teams will test.

5. Methods and Tools

- a. Identify CQI methods that will be used to assess progress.
- b. Describe CQI tools the state/territory team will use to support local CQI work, such as a CQI team charter, a driver diagram that displays the theory of change, process and outcome measures used to track progress, process maps, and run charts.

6. Measurement and Data Collection

- a. Include a plan for data collection (what to collect and how often), display, and dissemination at the local and state/territory levels for CQI purposes.
- b. Describe LIA or CQI team capacity to track progress, determine if tested changes resulted in improvement, identify the need for course corrections, and use data to drive decision making.
- c. Describe how you will communicate and spread CQI learning.

7. Grantee Monitoring and Assessment of Progress

- a. List active and completed CQI projects at the state/territory level including topics, SMART aims, successes, and lessons learned.
- b. Include a plan to routinely monitor CQI efforts and reassess efforts moving forward.

Appendix B: Sample CQI Plan Template

Date:

1. Organizational System and Support

- A. Participating Local Implementing Agencies
 - a. Indicate number of federally funded LIAS in your state/territory
 - b. Indicate number of LIAs participating in the CQI plan
 - c. For those participating LIAs, complete the following table.

LIA Name	CQI Team Members/Roles (e.g., Ms. Johnson, Home Visitor)	LIA Management Lead	CQI Topic (e.g., family retention, breastfeeding)
Notes:			

Tip: If home visiting program participants are not on local CQI teams, explain how they will play an active role in CQI work. In the notes section, identify administrative support for CQI work.

B. Grantee Personnel to Support Local Implementing Agencies

State/Territory Personnel Assigned to CQI Teams	Experience With CQI	Skills Specific to CQI Work	Professional Development/ Support Needed to be Successful in This Role	LIAs/CQI Teams Supported (List)	Staff Time Allocated To Supporting CQI Teams (e.g., .25 FTE)
Notes:					

Tip: If personnel are not already identified, share your plan for securing personnel to adequately support local CQI work.

C. Ongoing Support for Teaching, Coaching, and Using CQI Data to Inform Improvement

	Method	Frequency	Additional Comments	Indicator(s) of Effectiveness
1. Describe point person and training methods planned to strengthen CQI competencies for state/territory and local teams.	<p>Example:</p> <p><i>Name of point person:</i></p> <p><i>Methods:</i></p> <p><i>Annual CQI conference</i></p> <p><i>Virtual topic calls</i></p> <p><i>1:1 team coaching</i></p> <p><i>Group coaching</i></p>	<p>Example:</p> <p><i>Monthly calls</i></p> <p><i>1:1 check-in with each team monthly</i></p> <p><i>Group coaching and 1:1 per requests within 72 hours</i></p>	<p>Add specific information on the type of training that will be done.</p>	<p>How will you know that teaching/coaching is effective? Add examples to explain methods used for collecting data on efficacy and satisfaction.</p>
2. Describe how you will encourage learning based on data into training and coaching.	<p>Example:</p> <p><i>Collaborative run charts and small multiples with LIA-identified data shared in monthly topic calls</i></p> <p><i>Storyboards with annotated run charts created by:</i></p> <p><i>Team data used in 1:1 and group coaching</i></p>	<p>Example:</p> <p><i>Monthly</i></p> <p><i>Every 6 months</i></p> <p><i>Check-ins monthly with LIAs</i></p>		
3. Identify areas of anticipated priority support you would like to receive from the DOHVE team to provide optimal support to local CQI teams.				
Notes:				

D. Organizational Challenges

Describe organizational challenges, if any, that you feel may impact your CQI outcomes (e.g., competition between service agencies, inconsistent interpretations of regulations, fragmented delivery systems for families).

Challenge(s)	Possible Solutions	Is this an area you would like to request TA support? (yes or not right now)

2. CQI Mission

Clearly state the guiding mission of your organization’s CQI work to identify the overall change you want to see in your programs, such as “reach enrollment capacity” or “improve rates of screening for maternal depression.” Complete the table below to illustrate the rationale for your CQI mission.

	Evidence of Need for Improvement	
	Topic #1 (e.g., Enrollment)	Topic #2
1. Explain how you chose the topic(s) for improvement. For example, did you gather information from baseline data, self-assessment, surveys, or other formal methods to identify gaps in services?		
2. Did you include consumer input to identify areas that need improvement, and if so, how?		
3. How does your mission align with MIECHV priorities?		

3. Goals and Objectives, Changes to be Tested, Methods and Tools, Measurement and Data Collection

A. For each topic for improvement, complete the chart below.

Example: Goal 1: Improvements in School Readiness and Achievement: Improve Rates of Developmental Surveillance					
Objective(s)	Change(s) to be Tested, if Known	Method(s)/ Tool(s)	Measure	Data Collection	Data Review and Interpretation
<p>Example: <i>By December 2016, there will be a 20 percent increase in families asked at every home visit about their child’s development, behavior, and learning.</i></p>	<p>Example: <i>Home visitors use Parent Evaluation of Developmental Status language to elicit parent feedback at every home visit: “Do you have any concerns about your child’s learning, behavior, or development?...”</i></p> <p><i>A reminder sticker is placed on home visitor logs.</i></p> <p><i>Reminder: The changes tested can and should be adapted, adopted, or abandoned over time as testing and learning occur.</i></p>	<p>Example: <i>Teams will be supported to develop a key driver diagram delineating their theory of change and a subsequent change package.</i></p> <p><i>Teams will use PDSA cycles to test changes.</i></p>	<p>Example: <i>The percentage of home visits this month in which parents were asked if they had concerns regarding their child’s development, behavior, or learning</i></p> <p><i>Numerator: Number of home visits this month in which parents were asked if they had concerns regarding their child’s development, behavior, or learning</i></p> <p><i>Denominator: Number of home visits this month</i></p>	<p>How will local teams collect, store, and use the data required for each measure?</p> <p>What form will the data take?</p> <p>How will it be cleaned and analyzed?</p>	<p>Example: <i>LIAs report measures monthly using a formulated Excel template via an online portal.</i></p> <p><i>Collaborative data and small multiples are reviewed monthly through collaborative team calls.</i></p> <p><i>Strengths, barriers, and need for mid-course correction are discussed.</i></p> <p><i>Individual or group coaching is set up with teams that have unreliable or stagnant data or regression in their data.</i></p>

Tip: Remember to include SMART aims that indicate “how much, by when, and for whom.”

B. Communication

Describe how you will regularly communicate your work throughout the organization.

Method	Frequency	Target Audience
Example: <i>Kickoff meetings or all-staff meetings</i>		
<i>Storyboards or posters displayed in common areas</i>		
<i>Sharing your organization's annual CQI plan evaluation</i>		

4. Grantee Monitoring and Assessment of Progress

Describe your method for routinely monitoring the progress and learning based on the implementation of the CQI plan.

Topic	SMART Aim	Successes	Lessons Learned
<i>Topic 1 (e.g., enrollment)</i>			
<i>Topic 2</i>			
<i>Topic 3</i>			
Upcoming CQI topics building on successes and lessons learned:			