



Starting a Continuous Quality Improvement Project: A Brief for Tribal Home Visiting Grantees

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Introduction

This brief was developed by the [Tribal Home Visiting Evaluation Institute](#) (TEI) as a resource for Tribal Home Visiting programs seeking to conduct continuous quality improvement (CQI) projects to strengthen their services. It synthesizes fundamental CQI information from expert sources and builds on it to be consistent with **indigenous ways of knowing** and appropriate for tribal community contexts. The brief covers the definition of CQI, how to get started on a CQI project, and how to run a Plan-Do-Study-Act (PDSA) cycle. It also provides an overview of Tribal Home Visiting grantee improvement project topics and one detailed project example. The brief concludes with a list of additional CQI resources and a glossary of terms used.

The content of this brief is based on TEI's experiences supporting [Tribal Home Visiting](#) grantees in conducting CQI in tribal settings. However, the concepts may be applicable to health and human service programs elsewhere. Organizations and teams that are new to CQI will likely benefit most from the brief content.



What is CQI?

CQI is a *systematic* and ongoing approach to specifying the processes and outcomes of a program or set of practices through *regular* data collection and observation, and the implementation of **change strategies** that may lead to improvement in performance (Poes et al., 2017). Exhibit 1 outlines the CQI approach.

Exhibit 1. The CQI Approach



If this process sounds familiar, it's likely because we all run informal CQI projects every day as part of human nature. For example, if you're having trouble getting to work on time each morning, you may (1) examine what may cause you to be late, (2) determine you lose track of time eating breakfast and that bringing breakfast to work may help you get to work on time, (3) **test** bringing breakfast to work, (4) study the time that you're arriving at work and determine you are in fact getting to work on time, and (5) decide to continue bringing your breakfast to work.

CQI formalizes that process. In the context of Tribal Home Visiting, CQI is an intentional, cyclical process intended to achieve balance in a program that involves—

- ◆ Making constant observations and looking for patterns
- ◆ Acknowledging the changing nature and interdependence of programs within a broader context (i.e., organizations, communities)
- ◆ Using both **Western science** and **indigenous ways of knowing**

With these many attributes, CQI is important to Tribal Home Visiting grantees because it helps teams to build a culture where making measurable program improvements is an ongoing part of their work. This culture of improvement supports teams in developing program-level solutions to everyday challenges, streamlining processes, and reducing program costs. Ultimately, CQI can enhance team capacity to address family and community needs and to improve program outcomes.



What do I need to know to start a CQI project?

Create a CQI Team

The first step to starting a CQI project is creating your team. One of the advantages of CQI is that it uses the entire team's knowledge to identify and target change strategies that can improve

practices and program outcomes. Every member of your team has unique knowledge, experience, and strengths to bring to your CQI projects.

Tips to consider when forming your team (Poes et al., 2017) include—

- ◆ Seek, prioritize, and use all team members' knowledge
- ◆ Recognize that prior formal CQI experience is not required to work on CQI projects
- ◆ Remember that small teams are best (5–6 people)
- ◆ When appropriate, engage internal and external stakeholders (e.g., families, home visitors, and/or experts on the **topic** or improvement idea)
- ◆ Involve staff who understand day-to-day program processes and activities
- ◆ Include staff who understand and use data and technology

Use a Team Charter

A team charter is a useful tool for pulling your CQI team together. It lays out the roles and responsibilities for each team member and provides a roadmap for planning and conducting the CQI project (Scamarcia-Tews et al., 2012; Poes et al., 2017). The charter helps identify the team members and their assigned roles, when your team will meet and how often, and the plan for the CQI project. For more information on the team charter, see the [CQI Tools](#) page on the TEI website.

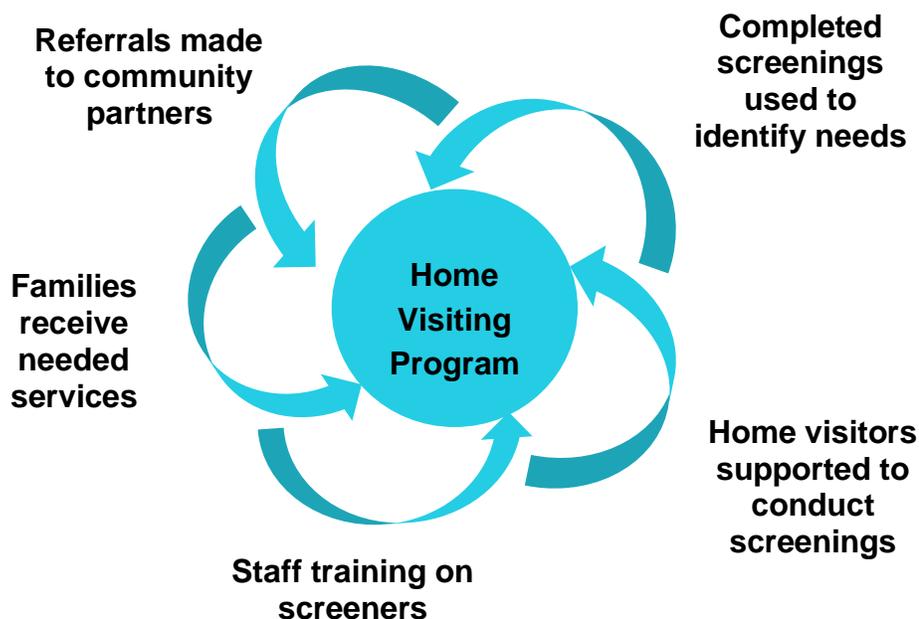
Select a Topic to Target

After forming a team, you are ready to identify a topic for your CQI project, or an area needing improvement. When considering which topic to focus on for your CQI project, it may be helpful to think about the idea of balance between program processes. Some processes that are part of a home visiting program include—

- ◆ Staff training and professional development
- ◆ Family enrollment and retention
- ◆ Data collection
- ◆ Screenings and assessments
- ◆ Referrals to community partners
- ◆ Implementing the home visiting model

Balance is achieved when the strengths of each process are occurring in harmony and the program is operating at its fullest potential (see Exhibit 2 on next page).

Exhibit 2. Example of Balance Within a Home Visiting Program—Screening and Assessment



All processes of a home visiting program are important and interrelated. When selecting a topic, it is important to look at the program holistically rather than at only one program process in isolation.

Example. A team holds a community advisory group meeting and, after presenting quarterly data on home visit frequency, receives feedback that the home visiting team should focus on increasing the number of families that receive the recommended number of home visits. During a staff meeting, the team discusses this recommendation and considers how different aspects of the program may influence engagement:

- ◆ Home visitor caseloads: Caseload assignments may affect engagement (e.g., too-high caseloads may be preventing home visitors from having the time to deliver the recommended number of home visits to each family).
- ◆ Families: Families' lack of engagement may influence the number of visits received (e.g., families may have competing priorities at this time).
- ◆ Home visitors: Home visitors' approaches with families between visits may affect family engagement (e.g., home visitors may not be following up with families consistently to reschedule a missed visit).

The team decides to focus on the problem of home visitor caseloads first and explore the reasons why it may be impacting engagement. The full team agrees this is a program priority and is something within their influence. By taking the time to explore how the different interrelated

aspects of the program could be contributing to an imbalance in service delivery, the team is able to identify where to best focus their initial CQI efforts.

Tips for selecting a topic include—

- ◆ Ask your stakeholders to help. Those who know your program and community best can help determine which processes are imbalanced and possible change strategies to test. Stakeholders may include your program team, other agency staff, advisory groups, elders, and family or community members.
- ◆ Think about your program’s goals, mission, and values. Consider what processes may be out of balance in supporting your program’s guiding principles.
- ◆ Examine available data on the potential topic to confirm the anecdotal information you gather from your team and stakeholders and to verify that the area needs improvement or balance. In some cases, teams may need to collect additional **baseline** data. You may be familiar with the term **data-driven decision making**. Using data to help inform your team’s decisions is a key strength of CQI. Your team will need to use data to track the progress of your improvement efforts, so it is important to make sure you have access to regular and reliable data to measure the topic.
- ◆ Consider feasibility. Is the topic something your team can realistically influence and bring into balance? Is the scope of the effort reasonable and attainable? How much time will the change effort take, and does the time frame needed align with the time available? Do you have access to regular and reliable data on the topic?

Selecting a CQI Topic

- ◆ Discuss program processes with team and other stakeholders
- ◆ Review the relevant data
- ◆ Consider alignment of the topic with the vision of the program and organization
- ◆ Consider feasibility

For tools on selecting a CQI topic, see the [CQI page](#) on the TEI website.

Determine What to Measure

Gathering good data and knowing how to use it are essential for CQI. This includes the data that will tell you what needs to be changed and the data that will tell you whether the change you made led to improvement. You can gather data for tribal programs using both **indigenous ways of knowing** (e.g., consultation with elders, tribal member observations) and **Western science** (e.g., formal measurement practices). Data can be **quantitative** (e.g., number of visits, family satisfaction ratings on a scale) or **qualitative** (e.g., reasons for cancelled visits, descriptions of satisfaction).



What model can we use to conduct CQI?

Run a PDSA Cycle

Plan-Do-Study-Act (PDSA) is a quality improvement model that is used in public health and human service fields and now in home visiting. PDSA is the most commonly used model among Tribal Home Visiting grantees. It is a four-stage approach that seeks to answer three questions:

- ◆ What are we trying to accomplish?
- ◆ How will we know if a change is an improvement?
- ◆ What changes can we make that will result in improvement?

The four stages are summarized below. See the [PDSA page](#) on the TEI website for more information.

Plan. Select your topic and plan how you will **test** the change, keeping the scope small in scale.

Do. Test your theory. Collect data and document problems or unexpected findings.

Study. Compile your data and study the results.

Act. Determine what you learned and make decisions about your next steps.

PDSA: An Example of the Plan Stage

The steps included in the Plan stage are shown below, framed by an example of a home visiting program's CQI project. These steps should be informed by discussions with the team and stakeholders and relevant data.

- ◆ **Identify an area to target.** Families are not receiving the intended number of home visits. Review current data on receipt of home visits to verify the targeted issue.
- ◆ **Examine your current approach.** Home visitors schedule the next home visit at the end of the current visit.
- ◆ **Identify potential change strategies.** Send families several text message visit reminders (1 week, 3 days, and the day before the next home visit).
- ◆ **Develop your improvement theory.** “If home visitors send multiple text message reminders to families in the week prior to a home visit, then families will keep their appointments and will receive the recommended number of home visits.”
- ◆ **Create a plan to test your theory.** The CQI team will establish a baseline by determining the percentage of families who received the number of home visits they should have received from May 1 to May 30. Then, in June, home visitors will send a text message reminder to families at the following intervals: 1 week before the scheduled home visit, 3 days before the visit, and the day before the visit. The CQI team will track the percent of home visits that families receive during the testing period (June 1–June 30). This is the data they will use to determine if the change led to an improvement.
- ◆ **Draft an Aim statement** using [SMART Aim criteria](#). Between June 1 and June 30, 90 percent of families will receive the number of home visits they should be receiving.

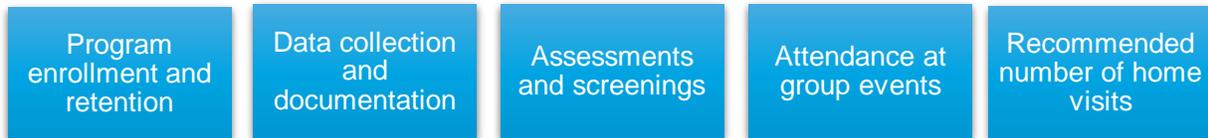


What have Tribal Home Visiting grantees done in their CQI work?

Tribal Home Visiting grantees have conducted CQI projects on a variety of topics to improve program processes and services for families. Grantees have formed CQI teams, utilized team

charters, selected topics based on data and input from stakeholders, identified measurement strategies, and conducted PDSA cycles. Improvement projects have included completing assessments and screenings during home visits, increasing program enrollment and retention, increasing attendance at group events, improving data collection and documentation, and ensuring that families receive the recommended number of home visits they should receive according to model developer guidelines (exhibit 3).

Exhibit 3. Examples of Tribal Home Visiting CQI Project Focus Areas



Grantee Example: Native American Professional Parenting Resources Tribal Home Visiting Program, Albuquerque, NM

NAPPR's CQI project, called Project Noodle, focused on improving their intake paperwork completion process at the first home visit. The CQI team, or Noodle Team, included the program director, evaluation specialist, and two home visitors. The team collected baseline data using a checklist (known as the Noodle Recipe) of required forms to be completed at intake. Baseline data were collected on 15 cases, and findings showed that 54 percent of intake forms were completed. The team set an aim to increase the amount of completed required intake forms on the first home visit by 10 percent. To accomplish this, the team decided to adjust the referral and intake process and reduce the amount of paperwork to be completed at the first home visit. Home visitors tested the revised process and collected follow-up data on 11 cases. Sixty-four percent of the intake forms were completed—showing the Noodle Team achieved a 10 percent increase from baseline.



Where can I access additional information about CQI?

To find more information about CQI, see the following resources.

[Continuous Quality Improvement Toolkit: A Resource for Maternal, Infant, and Early Childhood Home Visiting Program Awardees](#)

The CQI Toolkit includes nine modules to help MIECHV awardees and others work with local agencies to build capacity in CQI. It features examples from home visiting but may also be helpful for audiences from other health and human service programs. Modules may be delivered individually by CQI staff or as part of a multiday training activity.

[TEI CQI Resources](#)

TEI provides technical assistance on evaluation, performance measurement, CQI, and dissemination to Tribal Home Visiting Program grantees. Resources on this web page are targeted toward programs serving children and families interested in building capacity to conduct CQI using PDSA cycles.

[Foundations of Quality Improvement Training](#)

This self-paced introductory training facilitated by the Michigan Public Health Institute (MPHI) is about 30–45 minutes long and covers the basics of quality improvement and the PDSA method. Examples are provided.

[Quality Improvement Guidebook](#)

This MPHI guidebook is designed to build capacity and provide tools for public health practitioners at any performance improvement skill level.

[PDSA Planning Tool](#)

The PDSA Planning Tool helps Tribal Home Visiting grantees think through the important details of a PDSA cycle. The tool should be used in preparation for testing a change and then revisited once the test is completed to document what was learned and next steps (i.e., repeat the test, add the change to your program's process, or abandon the change). A sample tool provides added guidance.



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Glossary

Baseline—A measurement taken prior to implementing a change. It is used to determine a starting point and serves as the basis against which the change is measured (Scamarcia-Tews et al., 2012).

Change strategies—Structures, processes, or practices that can be adopted to achieve the goals of a CQI project (Douglass et al., 2019). Once identified, you test them to see if they yield improvements.

Data-driven decision making—A process for deciding on a course of action based on data. Through this process, data are used to assess, test, and improve a program, activity, or strategy (James Bell Associates, 2018).

Indigenous ways of knowing—Traditional ways of understanding the world that are based on historical experiences and passed down through generational knowledge, such as oral tradition, storytelling, and holistic thinking; varies by tribal community (Tribal Evaluation Workgroup, 2013).

Qualitative data—A description or characterization of a thing or phenomenon. This type of data can be described or observed (e.g., attitudes, feelings, behaviors), but not counted (Salvador et al., n.d.).

Quantitative data—A type of data that can be counted or measured. Examples include height, weight, and scores on a rating scale (Salvador et al., n.d.).

Test—A systematic way to assess and examine whether a change strategy improves a program process. Testing a change involves collecting baseline data, implementing the change, studying data collected during implementation, comparing the data to baseline, and making a decision about the change.

Topic—A program process area targeted for improvement.

Western science—A system of knowledge based on a set of rules and laws established through the application of the scientific method to understand the world. Tends to focus heavily on individual impact, linear thinking, objectivity, and quantitative data.

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