

Understanding the Conceptual Elements of Continuous Quality Improvement

The Office of Program, Research, and Evaluation (OPRE) LEADS study conducted a multidisciplinary review of the literature on the processes, facilitators, and impediments to data use for continuous quality improvement (Derrick-Mills et al., 2014). The key principles that emerged helped to identify the elements that facilitate or impede the process of data use for continuous quality. They are:

1. Leadership
2. Commitment of resources
3. Analytic capacity
4. Professional development
5. A culture of collaborative inquiry
6. A cycle of continuous quality improvement
7. Organizational characteristics
8. Environment

The National Center on Program Management and Fiscal Operations (PMFO) created the **Conceptual Elements of Continuous Quality Improvement** graphic to help program leadership identify and work toward the creation of a culture of continuous quality improvement. It reviews each principle identified by OPRE. The graphic also incorporates the requirement for Head Start grantees to establish procedures on data management.

Implementation of the Conceptual Elements

1. Leaders must be strong, committed, inclusive, and participatory.

The most important element identified was strong leadership. Specifically, leaders must be transformational change agents. They must be willing and able to communicate expectations around data use, motivate innovation and creativity, and distribute responsibilities. Leaders must act as role models and communicate clear expectations around data use. Strong leadership ensures the organization has the required resources, analytic capacity, and professional development to use data. The absence of any of these elements is likely to reduce an organization's ability to successfully use data for continuous quality improvement.

2. Leaders must prioritize and commit time and resources to the data-use effort.

Leaders must demonstrate their commitment to data use for continuous quality improvement by:

- Channeling resources to support and sustain technology

- Devoting their time to these efforts
- Allocating staff time to support data collection, analysis, and use

3. Leaders must invest in professional development.

Leaders must intentionally build staff capacity to:

- Analyze and understand the meaning of data
- Understand the systems in which data is stored
- Integrate new knowledge to effectively use data

4. Analytic capacity is necessary and should not be assumed.

Analytic capacity refers to collecting appropriate data, using related technology, and supporting staff capacity to effectively analyze and use data.

- Data include quality observations, information, and numbers that may be sorted and aggregated to provide meaningful insights.
- Appropriate technology supports efficient data collection, secure data storage, data sorting and aggregating, and appropriate data analyses.
- Human capacity refers to the extent to which the staff understand:
 - What appropriate data are
 - How to analyze and make meaning from the data
 - How to use that information to improve the quality of their work

5. An organizational culture of learning facilitates continuous data use.

Leadership must foster and support a culture conducive to collaborative inquiry where staff learn together in an environment that fosters joint problem-solving, creativity, and innovation. A learning culture requires a safe space where staff can openly discuss whatever the data might reveal about program operations and outcomes—good or bad—without fear of reprisal. Learning cultures also create opportunities for shared learning. Staff can discuss data together to determine what the data mean and what to do about it. Learning cultures work to involve both staff and stakeholders in making sense of the data and determining where to focus improvement efforts.

6. The environment matters. It, too, is complex and dynamic.

An organization's environmental characteristics refer to all the factors that influence it. Factors may include:

- Governmental mandates and regulations at the federal, state, and local levels
- Licensing, accreditation, and professional systems
- Nongovernmental funders, such as foundations

- Time (e.g., the continual changing of requirements, expectations, and other elements of the environment to which the organization must respond)

It is important for organizations to recognize and plan for the environmental conditions that can help or hinder their ability to use data.

7. Organizational characteristics influence processes and systems.

Organizational characteristics include:

- Size
- Governance structure
- Types of programs the organization operates
- History, including the record of related data, planning, and continuous improvement efforts

The size of the organization and its history of quality improvement are two main characteristics affecting efforts to implement or sustain data use for continuous improvement. Literature suggests the history of previous data use efforts can have either positive or negative effects on current data use efforts.

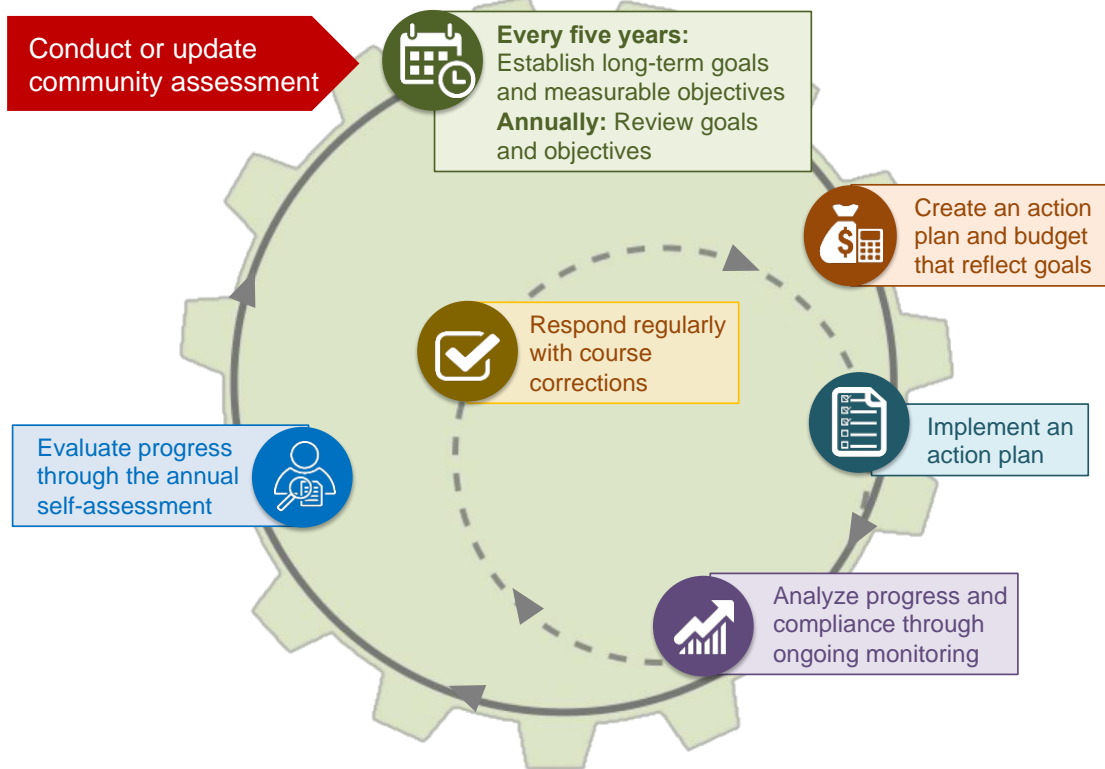
8. Implement sound management procedures.

In accordance with HSPPS [45 CFR §1302.101\(b\)\(4\)](#), programs must have data management procedures to effectively support the availability, usability, integrity, and security of data. A program must establish procedures on data management in areas such as quality of data and effective use and sharing of data, while protecting the privacy of child records. The procedures have to be approved by the governing body or Tribal Council and Policy Council. See *Guidance for Management of Program Data* for more information.

Data Use for Quality Improvement is a Continuous Process

Using effective data to improve quality involves a continuous, cyclical process of goal-setting, data collection and examination, and data-informed action. Reflecting on organizational and program goals, data users identify key data elements and the questions they want to address. They collaboratively analyze the data and interpret the findings. Through the expertise and experience of data users, the information becomes knowledge. That knowledge tells users how the program is performing. It identifies areas of strength, enabling the program to replicate these strategies, and identifies areas that need improvement. Areas needing improvement are prioritized and concrete actions are planned. During implementation, observations and data are fed back into the continuous improvement loop so progress toward goals and performance objectives can be monitored. Progress and quality are evaluated against internal goals or external benchmarks. The end of every cycle is the beginning of a new cycle.

The Head Start Program Planning Cycle graphic below demonstrates an ongoing cycle of planning, implementation, and evaluation in Head Start. It is driven by data that promotes continuous quality improvement and allows programs to work toward the achievement of positive outcomes for children and families. Understanding the conceptual elements that support continuous quality improvement can help programs work toward quality outcomes for children and families



Source: Derrick-Mills, T., H. Sandstrom, S. Pettijohn, S. Fyffee, and J. Koulisch. *Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn from Other Disciplines, A Literature Review and Conceptual Framework*. OPRE Report 2014-77. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. 2014.

