Roadmap to a Culture of Quality Improvement

A guide to leadership and success in local health departments.

FALL 2012

NACCHO
National Association of County & City Health Officials
The National Connection for Local Public Health

Roadmap to a Culture of Quality Improvement

Introduction

THE PUBLIC HEALTH FIELD IS A DYNAMIC ENVIRONMENT with new health issues emerging every day. In recent years, quality improvement (QI) has been introduced to, and embraced by, the field of public health as a means to achieve efficiencies and improve quality of services during a time of tough economic and political pressures. Although QI has a notable presence in public health practice, isolated QI processes are not sufficient to balance budget cuts with competing public health priorities. Local health departments (LHDs) need a more comprehensive approach to transform organizational culture, wherein the concepts of QI are ingrained in the shared attitudes, values, goals, and practices of all individuals in the LHD. Beyond discrete process improvements, achieving and sustaining an integrated agency-wide culture of QI is necessary to achieve efficiencies, demonstrate return on investment, and ultimately impact health outcomes.

About the Roadmap to a Culture of QI

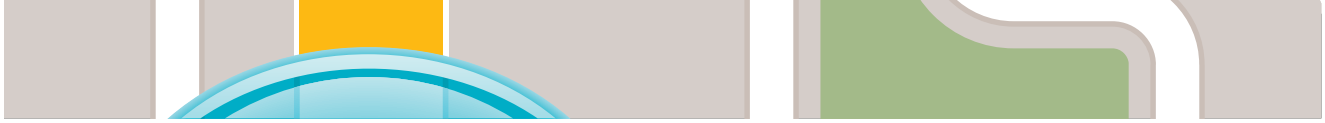
When initiating QI activity in LHDs, a natural evolution of change tends to occur, reflecting impact on both the people and processes within the organization. To gain a solid understanding of the barriers, drivers, and nuances along the journey to a QI culture, the National Association of County and City Health Officials (NACCHO) convened LHD staff responsible for leading QI efforts in their agencies across the country, as well as QI consultants who have worked with LHDs. These experts discussed the various points along a spectrum regarding the uptake of QI in LHDs and strategies to move toward a culture of QI. As a result of this meeting in April 2011, the foundation for this *Roadmap to a Culture of QI* (QI Roadmap) was built, based on real experiences of practitioners in the field.

The QI Roadmap provides LHDs with guidance on progressing through six phases or levels of QI integration until a culture of QI has been reached and can be sustained. For each phase, the Roadmap presents common organizational characteristics and incremental strategies for transitioning to the next phase. The QI Roadmap also describes six foundational elements of a QI culture that LHDs should cultivate over time. Whether a novice or advanced in QI, any LHD can adapt the QI Roadmap as a guide to understanding the current state and identifying next steps for advancing to the next stage of QI integration.

Accreditation and QI

The Public Health Accreditation Board's (PHAB's) voluntary, national accreditation program for state, local, and Tribal health departments, a cornerstone of which is QI, reinforces the increasing importance for system-wide QI in public health. The program's creators, whose development process included significant input from LHD practitioners,

QUALITY IMPROVEMENT (QI) in public health is defined as the use of a deliberate and defined improvement process that is focused on activities that are responsive to community needs and improving population health. QI is a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes that achieve equity and improve the health of the community.[1]



have carefully designed the accreditation process to ensure evidence of continuous QI, whereby accredited health departments must not only apply for reaccreditation every five years but must also submit annual reports demonstrating improvements in areas identified as weaknesses during the accreditation process.[2] Further, Domain 9 of the PHAB Standards and Measures Version 1.0 outlines specific requirements related to performance management and QI.[3] PHAB is partly responsible for stimulating QI activity in the field as several LHDs new to performance improvement have initiated QI as a result of preparing for accreditation. Other LHDs that are generally more advanced in QI implement QI for the sole purpose of improving performance and use accreditation as a platform for continuous QI.[4] Whether accreditation is the impetus for QI, or vice versa, these two processes must be in harmony.

Foundational Elements for Building a QI Culture

The culture of an organization is the embodiment of the core values, guiding principles, behaviors, and attitudes that collectively contribute to its daily operations.[5] Organizational culture is the very essence of how work is accomplished; it matures over several years, during which norms are passed on from one "generation" of staff to the next. Because culture is ingrained in an organization, transforming culture to embrace QI when minimal knowledge or experience with QI exists requires strong commitment and deliberate management of change over time.

Each foundational element described below reflects a fundamental principle of quality and is essential to achieving transformational change. An organization's evolution from implementation of small, discrete QI efforts or an informal application of quality concepts to complete infusion of QI into its culture will occur through a process of cultivating these foundational elements over time. Various aspects of these elements are likely already present in many health departments, but each element must be fully developed to ensure sustainability of progress toward a strong QI culture.

- **Leadership Commitment**—Senior leadership's commitment is vital for the success and sustainability of a QI culture. The health director and senior management should initiate and lead the process for transformational change, dedicate financial and human resources to QI, communicate progress, and exhibit lasting support for QI. Without leadership commitment, progress will diminish and likely result in relapse to the previous state.[6]

  A primary role for senior leadership is change management. Defined as a structured approach to transitioning an organization from a current state to a future desired state, change management must be deliberately used to address challenges throughout the change process.[7] When integrating QI into culture, management can use change-management concepts and strategies to address both the **process side of change** (e.g., building the infrastructure, processes, and systems needed for effective QI) and the **human side of change** (e.g., alleviating staff resistance, maintaining transparency, meeting training needs, attaining staff support).[8]

- **QI Infrastructure**—To a build culture of QI, infrastructure must be in place to ensure that QI efforts are aligned with the organization's mission, vision, and strategic direction and that QI is linked to organizational performance. The following are components of a strong QI infrastructure:

  - **Performance Management System**—This cyclical process of measuring, monitoring, and reporting of progress toward strategic organization, division, and program goals and objectives provides a structured, data-driven approach to identifying and prioritizing necessary QI projects.[9] The performance management system (PM system) should be guided by an agency's strategic plan.

  - **PM/QI Council**—The performance management committee or QI Council (PM/QI Council) oversees the implementation of the PM system and QI efforts. This group of leaders and key staff is responsible for implementing, evaluating and revising the QI plan; supporting specific QI projects; reviewing performance data and reporting progress; and recommending next steps. All divisions/departments should be represented on the PM/QI Council.[10] (Members of a performance management committee and QI council often overlap or are the same. For simplicity, the QI Roadmap defines these terms as the same group).

  - **QI Plan**—Outlining the organization's QI goals and objectives, this living document provides direction and structure for QI efforts. Leadership should continuously evaluate and revise the QI plan to progress further and maintain momentum. The agency's strategic plan should inform the QI plan, and QI efforts should align with strategic priorities.

- **Employee Empowerment and Commitment**—When a QI culture is achieved, all employees, from senior leadership to frontline staff, have infused QI into the way they do business daily. Employees continuously consider how processes can be improved, and innovation is the norm. QI is no longer seen as an additional task but a frame of mind in which the application of QI is second nature. To achieve this state, leadership must empower employees by providing periodic training, granting authority to make decisions relative to quality, and eliminating fear of consequence or placing blame.[10,11,12] Additionally, QI champions must be identified, cultivated, and gradually diffused throughout the organization as they spread expertise and advocate for QI, reducing the impact of any staff turnover.
- **Customer Focus**—Customer service is a core tenet of quality. Services offered should be customer driven, and continuous assessment of internal and external customer needs should drive improvement efforts to meet and exceed customer expectations and prevent dissatisfaction.[13]
- **Teamwork and Collaboration**—A QI culture is an organization-wide effort that cannot be accomplished without teamwork and collaboration. Teams should routinely be formed to brainstorm, solve problems, implement QI projects, and share lessons learned.[14] Collaboration among divisions and programs must also exist to standardize processes and ultimately break silos that may exist throughout the agency.
- **Continuous Process Improvement**—Abandoning the notion of perfection, continuous process improvement is a never-ending quest to improve processes by identifying root causes of problems. Process improvement involves making gradual improvements in everyday processes to reduce variation and redundancies, improve quality of services, and increase customer satisfaction. Widely used models for continuous process improvement include Lean, Six Sigma, and Business Process Re-engineering.[15] The most widely used improvement process in public health today is Rapid Cycle Improvement through the use of successive Plan-Do-Check-Act (PDCA) cycles.[16]

Combined, these elements will lay the foundation for a comprehensive approach to transformational change that considers the processes and people involved and will lead an agency toward a sustainable QI culture.

How to Use the QI Roadmap

Breaking down six foundational elements into manageable pieces, the QI Roadmap presents organizational characteristics and transition strategies within each phase on the continuum to creating a culture of QI.

Features of the QI Roadmap

- **Organizational characteristics**, by phase, allowing LHDs to more readily determine their current level of QI integration.
- **Strategies**, delineated by each foundational element, for transitioning to the next level of QI integration, managing both the "human" and "process" sides of change, and for sustaining progress already made.
- Links to tangible **tools, templates, and resources** corresponding to the transition strategies in each phase.
- Identification of **PHAB's requirements** for performance management and QI, which appear at various points along the QI Roadmap.

How to Use the QI Roadmap

1. Assess the LHD against characteristics in each phase to determine which phase the LHD is currently in.
2. Use the corresponding resources (available on NACCHO's website) to assist with implementing the transition strategies in each phase. (Strategies identified in previous or subsequent phases may be helpful based on the degree to which the LHD has established each foundational element.)
3. Move phase by phase. After implementing strategies in one phase, assess the LHD against the characteristics in the next phase and determine if the LHD has successfully transitioned. If yes, implement the strategies using the resources in that phase. If not, return to the previous phase(s) and identify which transition strategies would assist the LHD in moving forward. Be sure to sustain progress made in previous phases.
4. Once reaching the final phase, sustain the culture of QI.

The QI Roadmap is not a prescription for developing a culture of QI but rather a general guide to provide direction and identify a non-exhaustive list of tangible strategies and resources for building a culture of QI. Each LHD is different and is beginning with its own organizational culture and challenges, which must be honored and respected during the change process to ensure smooth and successful movement along the QI Roadmap. At any given time, an LHD may find characteristics or transition strategies in multiple phases applicable. Rather than implementing all strategies within each phase, LHDs are encouraged to use the most appropriate transition strategies based on what it has already accomplished.

The Roadmap to a Culture of Quality Improvement

PHASE 1

No Knowledge of QI

In this phase, LHD staff and leadership are unaware of QI and its importance. QI is not considered as a way of doing business, evidence base is not used in decision-making, and a reactive rather than proactive approach is used to address problems.

LHD Characteristics

"Human" Characteristics:

- Leadership and staff do not know about or understand QI.
- Competing priorities impede interest in QI among leadership and staff.
- Leadership and staff may be satisfied with status quo.
- Leadership and staff do not see the value or link between QI and public health practice.

"Process" Characteristics:

- Leadership does not dedicate, or seek out, resources for QI.
- Organizational efforts are not aligned with the strategic plan.
- Data are not available or are not used in solving problems.
- LHD performance is not monitored, and decisions are not driven by data or formal processes.
- Innovation is rare.

Transition Strategies

The following strategies are intended to assist in moving LHDs from "PHASE 1: No Knowledge of QI" to "PHASE 2: Not Involved with QI Activities."

Leadership Commitment:

- All leaders learn about, understand, and embrace the key principles of QI from a managerial and philosophical perspective.
- Leaders attend leadership training(s).
- Leaders learn about the concepts of and strategies for change management.
- Leaders assess the current organization culture (e.g., level of QI knowledge, group dynamics, leadership, communication and decision-making styles, norms, and behaviors).
- Leaders communicate to all staff and the governing entity the urgency for and benefits of QI, highlighting QI success stories in public health and other industries.

Employee Empowerment and Commitment:

- Identify staff with existing QI knowledge, experience, or expertise and engage them as QI champions. (If no expertise currently exists, seek out staff that exhibit characteristics of natural QI champions (e.g., early adopters, innovators, natural leaders, analytical thinkers).
- Leaders provide all staff with an orientation to performance management and QI, emphasizing their importance and applicability to the organization (this could be done during department-wide training(s) or all staff meetings).
- Leaders identify QI training opportunities and supply QI resources to staff. Many resources and trainings are offered through national organizations including American Society for Quality, Association of State and Territorial Health Officials, Institute for Healthcare Improvement, NACCHO, National Network of Public Health Institutes, and Public Health Foundation.

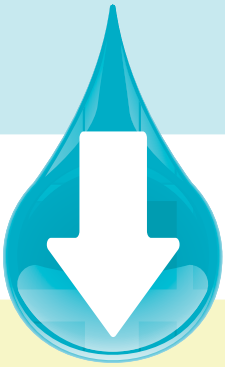
QI Infrastructure:

- Leaders identify members of a PM/QI council with all divisions/departments represented. This group will oversee the implementation of the PM system and QI program.
- Leaders work with PM/QI Council to develop a team charter, outlining the mission and roles and responsibilities of each member.
- Leaders or PM/QI Council conduct a performance management self-assessment, the first step in developing a PM system. (**For PHAB documentation requirements of PM self-assessment, see PHAB Measure 9.1.2 A.**)

Continuous Process Improvement:

- Leaders or PM/QI Council explore the different models for continuous process improvement (e.g., Lean, Six Sigma, Rapid Cycle Improvement) and determine the best fit for the agency. (Rapid Cycle Improvement through the use of PDCA cycles has been widely used in public health and is a good model for those new to QI. Other models such as Lean or Six Sigma are generally used by organizations with more experience that are addressing more complex issues. (**For PHAB documentation requirements on use of a formal improvement process, see PHAB Measure 9.2.2.**)

Visit http://www.qiroadmap.org/phase-1/ to access resources, tools, and templates to assist with implementing transition strategies in the "No Knowledge of QI" phase.



PHASE 2

Not Involved with QI Activities

In this phase, leadership understands and discusses QI with staff but does not enforce the implementation of or dedicate sufficient staff time and resources for QI.

LHD Characteristics

"Human" Characteristics:

- Leaders understand, and staff are beginning to understand, QI concepts and their link to LHD practices.
- Leadership have little or no expectations of staff to engage in QI.
- Staff may view QI as a trend or temporary activity.
- Resentment among staff around the use of QI may be building (i.e., fear of being punished, worry about additional work).
- Very few training opportunities exist for staff.
- Very few QI champions exist.

"Process" Characteristics:

- Problems are randomly or inconsistently addressed.
- Leadership and staff do not know where or how to access data.
- Decisions are made without use of data or evidence base.
- Simple, informal elements of QI exist (e.g., evaluation activities, some data collection).
- Resources and staff time allocated for QI are very limited.
- Redundancies and variations in processes are common.

Transition Strategies

The following strategies help LHDs move from PHASE 2: Not Involved with QI Activities" to "PHASE 3: Informal or Ad Hoc QI."

Leadership Commitment:

- Leaders begin to identify and seek out additional resources for QI.
- Leaders continue to dedicate additional human and financial resource to QI.
- Leaders incorporate QI into the organization's value statement and guiding principles.
- Leaders work with PM/QI Council to develop a plan for the change process using deliberate change-management strategies and including timelines, costs, short- and long-term goals, communication and training plans, and implications for staff and stakeholders.

Employee Empowerment and Commitment:

- PM/QI Council provides staff at every level with basic trainings in performance management and QI.
- PM/QI Council and QI champions engage in advanced training opportunities to enhance their knowledge and ability to lead QI efforts and offer technical assistance to staff.
- Leaders assess the source of any staff resistance and develop strategies to counter resistance through effective messaging, training, and incentives. (Resistance is often due to fear of blame, lack of QI knowledge and skills, perceived lack of time, etc.)
- Leaders continue to provide staff with access to QI resources, tools, and templates.
- Leaders and QI champions attend national conferences and meetings to learn about QI.

QI Infrastructure:

- PM/QI Council assumes ownership of all QI efforts, reporting to and consulting with leaders as appropriate.
- PM/QI Council identifies aspects of core operations and program areas for which performance is already being measured and data are being collected or are available.
- PM/QI Council develops a plan for establishing and implementing a PM system to monitor achievement of organizational goals and objectives. (**For PHAB documentation requirements of a PM committee, see Standard 9.1.**)
- PM/QI Council drafts a QI plan with time-framed and measureable goals and objectives. (In early phases, the QI plan will likely be nascent and will need to be updated and revised as QI infrastructure matures and activity increases. **For PHAB documentation requirements of a QI plan, see Measure 9.2.1 A.**)

Customer Service:

- Identify the agency's customers and stakeholders to determine where customer satisfaction should be assessed. (These individuals may have been previously identified as a part of a strategic planning or health improvement planning process. **See PHAB Measure 9.1.4 for documentation requirements.**)
- Identify existing customer satisfaction data and data needs.

Continuous Process Improvement:

- Train all staff on a formal QI model (e.g., PDSA) and the seven basic tools of quality: (1) Cause-and-effect diagram; (2) Flowchart; (3) Checklist; (4) Control chart; (5) Scatter diagram; (6) Pareto chart; and (7) Histogram.
- Identify and engage staff with data-analysis skills.
- Prioritize and sponsor QI projects and form functional QI teams to implement these projects using a formal model for improvement. (If just beginning, choose small processes with a likelihood for success.)

Visit http://www.qiroadmap.org/phase-2/ to access resources, tools, and templates to assist with implementing transition strategies in the "Not Involved with QI Activity" phase.

PHASE 3

Informal or Ad Hoc QI activities

Discrete QI efforts are practiced in isolated instances throughout the LHD, often without consistent use of data or alignment with the steps in a formal QI process.

LHD Characteristics

"Human" characteristics:

- Staff infrequently share lessons-learned.
- Staff may view QI as an added responsibility.
- Staff are anxious about implementing QI incorrectly or uncovering negative performance.
- Staff may be frustrated if efforts do not result in immediate improvement.
- Basic QI training and resources are more readily available, but advanced QI training may still be limited.
- Some QI champions are able to lead QI projects and mentor staff.
- Loss of a QI champion often results in regression.

"Process" Characteristics:

- QI projects may be occurring only at the administrative staff level or at other isolated times.
- Data are still not routinely used in agency operations and decision-making.
- Discrete QI projects occur but are likely not fully aligned with formal steps of a QI model (e.g., PDSA).
- QI is not aligned with organization's strategic plan or performance data.
- Multiple failed attempts to improve through QI projects may exist.
- QI efforts are often stalled due to emerging issues (e.g., budget cuts, staff turnover, H1N1 response).
- Redundancies and variations in processes still exist.

Transition Strategies

The following strategies help LHDs move from "PHASE 3: Informal or Ad Hoc QI" to "PHASE 4: Formal QI Implemented in Specific Areas."

Leadership Commitment:

- Leaders continuously communicate updates on progress and future plans, maintaining an inclusive and transparent process.
- Leaders communicate to staff key messages and begin to demonstrate concrete examples of these messages: (1) QI is not about placing blame or punishment; (2) QI is a way to make daily work easier and more efficient; (3) QI is within reach of all staff and will get easier with practice.
- Leaders work with PM/QI Council to continuously assess the culture of the agency including staff commitment and engagement and sustainability of progress toward building a QI culture.
- Leaders encourage and positively reinforce QI implementation.

Employee Empowerment and Commitment:

- The LHD continues to recruit additional QI champions to garner support and advocate for QI among staff.
- Staff celebrate QI successes.
- All staff attend training on the organization-wide performance-management process including how to develop performance measures, input and access data, identify performance gaps, and report methods and frequency.
- PM/QI Council and QI champions mentor staff and offer QI trainings and resources.
- The LHD provides advanced training in QI to those that need it, including more advanced tools of quality, statistical and data analysis, and more complex models for QI, as appropriate.

QI Infrastructure:

- PM/QI Council implements a formal process for choosing performance standards and targets and for developing respective performance measures to manage performance around core functions (e.g., human resources, information technology (IT), finance) and public health programs and services (e.g., maternal and child health, preparedness, customer service, service delivery), per the performance-management plan. Performance standards and measures are developed at the organization, division, and program level, measuring both processes and outcomes. (The process should include a mechanism to ensure alignment of standards and measures across programs, divisions, and agencies (e.g., consistent child health standards across programs and agencies) and with the agency strategic plan.)
- All staff identify performance data needs and sources.
- Leaders, PM/QI Council, and IT staff begin to explore options for a data-collection system for storing and tracking performance data (e.g., Excel, dashboard, software).
- PM/QI Council establishes a formal process for routinely reporting progress against performance standards/targets to all stakeholders (e.g., external customers, governing entity, managers, leaders) including methods and frequency of analysis and reporting.
- PM/QI Council begins to identify areas for improvement based on a gap analysis using performance data.
- PM/QI Council develops a formal process to assess progress against, and revise annually, the QI plan.
- Leaders and PM/QI Council request data prior to approving changes or making decisions.

Customer Service:

- Prioritize which programs/services to assess for, and improve, customer satisfaction. Prioritization criteria could include availability of data, number of people served, program budget, clear opportunities for improvement, strategic priorities, and high-profile programs. (If just beginning, do not try to measure all programs at once but rather begin with a few programs as learning opportunities for customer-satisfaction measurement.)
- Develop data-collection instrument(s) and methods for assessing customer satisfaction (e.g., forms, surveys, interviews, causal observations). Commonly used core areas for assessment include (1) Accessibility; (2) Clarity; (3) Courtesy; (4) Helpfulness; (5) Timeliness; (6) Overall Satisfaction.
- Establish a formal process for analyzing customer satisfaction data, prioritizing unmet customer needs, and reporting results to continuously improve services offered. (Ensure that the customer-satisfaction measurement process aligns with the performance-measurement system, i.e., customer satisfaction data are used to report on performance measures. **See PHAB Measure 9.1.4 for documentation requirements.**)

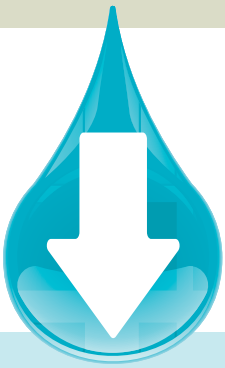
Teamwork and Collaboration:

- All staff increase use of collaborative QI techniques for problem-solving including group brainstorming sessions and discussions.
- QI champions and staff participate in internal and external QI learning communities.
- QI champions lead functional QI teams in implementing discrete projects sponsored by the PM/QI Council.
- Leaders provide staff the opportunity to share results achieved through various mechanisms (e.g., staff meetings, storyboards on display).

Continuous Process Improvement:

- All staff practice using the seven basic tools of quality in daily work to identify root causes of problems, assess efficiency of processes, interpret findings, and correct problems.
- The PM/QI Council identifies and sponsors "winnable" QI projects using agency performance data. QI efforts are linked to strategic priorities and identified from performance data to the extent possible. (Lack of performance measures and data in this phase should not hinder initiation of discrete QI efforts as opportunities for staff to practice will facilitate learning.)

Visit http://www.qiroadmap.org/phase-3/ to access resources, tools, and templates to assist with implementing transition strategies in the "Informal or Ad Hoc QI Activities" phase.



PHASE 4

Formal QI Activities Implemented in Specific Areas

Following adoption of one or more formal QI models, QI is being implemented in specific program areas, but QI is not yet incorporated into an organization-wide culture.

LHD Characteristics

"Human" Characteristics:

- Multiple QI champions and are well known among staff as QI mentors and experts.
- Formal, in-house QI technical assistance and training are available to staff.
- Successes are celebrated and lessons-learned are shared with staff.
- Several staff are embracing QI as a means to improve daily work.

"Process" Characteristics:

- Some use of data exists, but consistency and reliability issues are present.
- Data-driven decision-making is used over reactive problem-solving.
- Use of a formal QI model is well institutionalized in some areas of the agency.
- Sustainability of progress and improvements made is not consistent.
- Redundancies and variations in some process are being addressed.

Transition Strategies

The following strategies help LHDs move from "PHASE 4: Formal QI Implemented in Specific Areas" to "PHASE 5: Formal Agency-Wide QI."

Leadership Commitment:

- Leaders continuously provide regular updates on progress and future plans, maintaining an inclusive and transparent process.
- Leaders continuously assess the culture of the agency including staff commitment and engagement and sustainability of progress made through improvement efforts.

Employee Empowerment and Commitment:

- Staff are encouraged to identify quality concerns aligned with strategic plan and performance and implement staff suggestions.
- Leaders grant QI champions and staff authority to make decisions regarding quality issues in their own work processes, as appropriate.
- The LHD provides staff training in the use of evidence-based and model practices.
- Leaders make available beginner- and advanced-level trainings and resources to accommodate both new and experienced staff.
- Leaders establish a formal process to orient and train new staff in performance management and QI.
- QI champions continue to advocate for QI, mentor staff, and recruit additional champions throughout the agency.
- All staff celebrate successes around QI.

QI Infrastructure:

- Leaders and PM/QI Council implement a standardized performance management process to collect, store, monitor, analyze, and report on performance data.
- Senior leadership and PM/QI Council work with staff to link the agency strategic plan, QI plan, and all operational plans.
- PM/QI Council continuously assesses progress against QI plan.
- Senior leadership begin to request return on investment data including costs and cost savings resulting from QI efforts.

Customer Service:

- Standardize use of data-collection methods/ instruments to multiple programs and services when possible.
- Establish a standardized, department-wide process for assessing customer satisfaction, developing and implementing action plans to continuously improve services offered, and report results to customers and stakeholders. (This process should be aligned with the performance-management process.)

Teamwork and Collaboration:

- QI champions and staff continue to participate in internal and external QI learning communities.
- PM/QI Council sponsors multiple QI teams across divisions and programs to implement QI efforts.
- QI teams begin to break down silos by sharing results achieved and lessons-learned with staff from other programs or divisions.

Continuous Process Improvement:

- Hold improvement gains resulting from previous QI projects through quality-control strategies such as documenting and training staff on revised processes, continuing to measure improvements, creating checklists and reminders, and performing audits.
- PM/QI Council uses performance data to identify and initiate multiple QI projects throughout the organization.
- PM/QI Council monitors improvements and works with leaders to document and standardize improved processes throughout organization.
- Identify and use evidence-based practices, when possible, and contribute to the evidence base of public health through national conferences and publications.

Visit http://www.qiroadmap.org/phase-4/ to access resources, tools, and templates to assist with implementing transition strategies in the "Formal QI Activities Implemented in Specific Areas" phase.

PHASE 5

Formal Agency-Wide QI

QI is integrated into the agency strategic and operational plans. PM/QI Council oversees the implementation of a detailed plan to ensure QI throughout the LHD. Policies and procedures are in place and data are commonly used for problem-solving and decision-making.

LHD Characteristics

"Human" Characteristics:

- Several QI champions exist throughout the agency to mentor staff.
- Sharing of best practices and lessons-learned is common throughout the agency.
- Charts, graphs, storyboards, or other visuals illustrating improvement may be displayed throughout organization.
- The majority of staff understand how and why QI should be used in daily work, and resistance is minimal.
- Staff continuously use QI tools and techniques to improve work.

"Process" Characteristics:

- Standardized processes are in place throughout the agency.
- Progress and outcomes related to QI and strategic goals are reported widely and routinely.
- Problem-solving and decision-making are data-driven and collaborative throughout organization.
- Detailed operational plans are being used and linked to agency strategic plan and QI plan.
- QI plan is fully implemented, evaluated, and revised annually.
- Customer satisfaction is assessed systematically.
- A formal performance management system is fully in place.
- Resources and staff time are consistently allocated for QI.
- Redundancies and variations in processes are minimized throughout agency.

Transition Strategies

The following strategies help LHDs move from "PHASE 5: Formal Agency-Wide QI" to "PHASE 6: Organization Wide Culture of QI."

Leadership Commitment:

- Leaders regularly update staff on progress and future plans, maintaining an inclusive and transparent process.
- Leaders continuously assess the culture of the agency including staff commitment and engagement and sustainability of progress made.
- Leaders hold QI discussions at every leadership meeting in a standardized way.

Employee Empowerment and Commitment:

- Leaders and managers incorporate QI competencies in position descriptions.
- Leaders and managers incorporate QI into performance-appraisal process.
- Staff at every level identify QI opportunities aligned with agency strategic plan and are involved with decisions regarding quality in own work processes.

QI Infrastructure:

- All staff in all divisions and program areas continue to collect, monitor, analyze, and report performance data.
- PM/QI Council uses performance data to identify and recommend QI efforts throughout the organization.
- PM/QI Council continuously assesses progress against QI plan and revises annually.
- Senior leadership routinely measure return on investment using cost and benefit values.

Customer Service:

- Continue to monitor, assess, improve, and report on customer satisfaction for all programs and services.
- Refine and improve the customer-satisfaction measurement process.

Teamwork and Collaboration:

- PM/QI Council continues to sponsor multiple QI teams across divisions and programs to implement QI efforts.
- Staff routinely form sharing sessions or use other mechanisms to exchange successes and lessons-learned.

Continuous Process Improvement:

- Continue to hold improvement gains resulting from previous QI efforts.
- PM/Council continues to sponsor QI projects, as appropriate.
- Staff continue to use, and contribute to, evidence base and model practices.

Visit http://www.qiroadmap.org/phase-5/ to access resources, tools, and templates to assist with implementing transition strategies in the "Formal Agency-Wide QI" phase.

PHASE 6

QI Culture

QI is fully embedded into the way the agency does business, across all levels, departments, and programs. Leadership and staff are fully committed to quality, and results of QI efforts are communicated internally and externally. Even if leadership changes, the basics of QI are so ingrained in staff that they seek out the root cause of problems. They do not assume that an intervention will be effective, but rather they establish and quantify progress toward measurable objectives.

LHD Characteristics

"Human" Characteristics:

- People are highly valued in the organization.
- Ongoing QI trainings and resources are provided.
- QI knowledge and skills are strong across majority of staff.
- Problems are viewed as "gold" by all staff.
- "Top-down" and "bottom-up" approach to QI is prevalent.
- All staff are completely committed to the use of QI to continuously improve daily work.
- Solidarity among staff is strong, and staff turnover tends to be low.
- The organization is viewed as a QI expert in the field.

"Process" Characteristics:

- Every level of staff is engaged with implementation of a fully integrated performance-management system.
- Progress is routinely reported to internal and external customers and stakeholders.
- Every level of staff is held accountable with QI competencies and action plans incorporated in job descriptions and performance appraisals.
- QI is integrated into all agency planning efforts, and all efforts align with strategic goals.
- Data analysis and QI tools are used in everyday work.
- Customer is primary focus.
- Innovation and creativity is the norm.
- Agency operations are outcome-driven.
- Return on investment is demonstrated.
- Emerging issues are viewed as opportunities to use QI, rather than reason to avoid QI.
- Agency makes ongoing contribution to the evidence base of public health through publications, national conferences, meetings, or other consulting opportunities in the field.

Visit http://www.qiroadmap.org/phase-6/ to read more about a QI culture.

Sustaining the Culture of QI

One of the greatest challenges associated with establishing a culture of QI is sustaining progress. Too often, QI projects are implemented, but improvements are not monitored; staff are trained without the opportunity for application; QI is initiated but sidetracked by competing priorities; and expertise is built but lost through staff turnover. Every step along this QI Roadmap requires a deliberate effort to hold the gains previously made and diffuse them throughout the LHD. The further an LHD is from a QI culture, the easier it is to regress to the initial state. By carefully building each of the six foundational elements outlined in this Roadmap, LHDs can strengthen ability to sustain improvements. Even when a QI culture has been fully achieved, the LHD must continuously assess the culture and address issues that may threaten the presence of QI in the LHD.

References

1. This definition was developed by the Accreditation Coalition Workgroup (Les Beitsch, Ron Bialek, Abby Cofsky, Liza Corso, Jack Moran, William Riley, and Pamela Russo) and approved by the Accreditation Coalition on June 2009.
2. Public Health Accreditation Board. (May 2011). Guide to National Public Health Department Accreditation, Version 1.0. Retrieved from http://www.phaboard.org/accreditation-process/guide-to-national-public-health-accreditation/.
3. Public Health Accreditation Board. (Dec. 22, 2011). PHAB Standards and Measures, Version 1.0. Retrieved from http://www.phaboard.org/accreditation-process/public-health-department-standards-and-measures/.
4. Davis, M.V., Mahanna, E., Zelek, M. & et al. Building Theory: Creating a QI Culture. AcademyHealth Public Health Systems Research Interest Group Meeting. June 26, 2012. Kissimmee, FL.
5. Delmarva Foundation. (2003). Healthcare Quality Improvement and Organizational Culture. Easton, MD: Boan, D. & Funderburk, F.
6. Riley, W., Helen, P., Duffy, G. & et al. (2010). Realizing Transformational Change through Quality Improvement in Public Health. Journal of Public Health Management and Practice, 16(1), 72-78.
7. Varkey, P. & Antonio, K. (2010). Change Management for Effective Quality Improvement: A Primer. American Journal of Medical Quality, 25(4), 268-273.
8. Anderson, A. & Anderson, L. (2010). Beyond Change Management: How to Achieve Breakthrough Results Through Conscious Change Leadership. San Francisco, CA: Pfeiffer.
9. Turning Point Performance Management National Excellence Collaborative. From Systems to Silos: Using Performance Management to Improve the Public's Health. Retrieved from http://www.turningpointprogram.org/pages/pdfs/perform_manage/pmc_silos_to_systems.pdf.
10. Juran, J. (1989). Juran on Leadership for Quality: An Executive Handbook. New York, NY: Free Press.
11. Thamizhmanii, S. & Hasan, S. (April 2010). A Review on an Employee Empowerment in TQM Practice. Journal of Achievement in Materials and Manufacturing Engineering, 39(2), 204-210.
12. Deming, W.E. (1994). The New Economics for Industry, Government, Education (2nd ed.). Cambridge, MA: Massachusetts Institute of Technology.
13. Office of Performance, Strategy and Budget and Customer Service Director, King County Executive's Office. Measuring Customer Satisfaction: Improving the Experience of King County's Customers. Retrieved from http://www.kingcounty.gov/~/media/customerservice/files/1101customersatisfactionguide.ashx.
14. Duffy, G.L. & Moran, J.M. (2008). Roles and Responsibilities of Teams. In R. Bialek, J.W. Moran, & G.L. Duffy (Eds.), The Public Health Quality Improvement Handbook (pp. 293-309). Washington, DC: Public Health Foundation.
15. Continuous Improvement. American Society for Quality. Retrieved Aug. 16, 2012, from http://asq.org/learn-about-quality/continuous-improvement/overview/overview.html.
16. National Association of County and City Health Officials. (2010). 2010 National Profile of Local Health Departments. Retrieved from http://www.naccho.org/topics/infrastructure/profile/resources/2010report/upload/2010_profile_main_report-web.pdf.

Glossary

Accreditation—Accreditation for public health departments is defined as: 1). The development and acceptance of a set of national public health department accreditation standards; 2). The development and acceptance of a standardized process to measure health department performance against those standards; 3). The periodic issuance of recognition for health departments that meet a specified set of national accreditation standards; and 4). The periodic review, refining, and updating of the national public health department accreditation standards and the process for measuring and awarding accreditation recognition.

Cause and Effect Diagram—A root cause analysis tool used to identify and visually display all possible causes related to a problem.

Change Management—A structured approach to transitioning an organization from a current state to a future desired state.

Check Sheet—A tool used to record and compile data as they occur, so that patterns and trends can be identified.

Control Chart—A tool used to monitor performance over time by identifying and distinguishing common and special causes of variation.

Flowchart—A tool used to map out the sequence of events in a process.

Histogram—A graphical tool used to summarize frequency distributions over time.

Pareto Chart—A tool used to identify problems that offer the greatest potential for improvement by showing their relative frequency or size in a descending bar graph.

Performance Management System—A fully functioning performance management system that is completely integrated into health department daily practice at all levels includes: 1) setting organizational objectives across all levels of the department, 2) identifying indicators to measure progress toward achieving objectives on a regular basis, 3) identifying responsibility for monitoring progress and reporting, and 4) identifying areas where achieving objectives requires focused quality improvement processes.

Performance Management/QI Council—A cross-sectional group of agency leaders and key staff responsible for overseeing the implementation of the performance management system and QI efforts.

Plan-Do-Study-Act—A continuous quality improvement model for improving a process. Similar to the scientific method, PDSA steps involve the development of a hypothesis (Plan), an experiment or intervention (Do), evaluation or data analysis (Study/Act).

Public Health Accreditation Board—PHAB is the national accrediting organization for public health departments. A nonprofit organization, PHAB is dedicated to advancing the continuous quality improvement of Tribal, state, local, and territorial public health departments. PHAB is working to promote and protect the health of the public by advancing the quality and performance of all public health departments in the United States through national public health department accreditation.

Quality Improvement— A deliberate and defined improvement process, such as Plan-Do-Study-Act, that is focused on activities that are responsive to community needs and improving population health. QI is a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes that achieve equity and improve the health of the community.

QI Champions— Staff that possess enthusiasm for and expertise in QI, serve as QI mentors to staff, and regularly advocate for the use of QI in the agency.

Rapid Cycle Improvement—An improvement process, based on the PDSA model, that involves testing a change idea on a small scale to see how it works, modifying, and re-testing until customers are satisfied and it becomes a permanent improvement.

Scatter Diagram—A graphical tool used to identify the possible relationship between the changes observed in two different sets of variables.

Strategic Plan—A strategic plan results from a deliberate decision-making process and defines where an organization is going. The plan sets the direction for the organization and, through a common understanding of the mission, vision, goals, and objectives, provides a template for all employees and stakeholders to make decisions that move the organization forward. (Swayne, Duncan, and Ginter. Strategic Management of Health Care Organizations. Jossey Bass. New Jersey. 2008).

Acknowledgments

Funding for this document was provided by the Robert Wood Johnson Foundation (ID# 69283) and by funds made available from the Centers for Disease Control and Prevention, Office for State, Tribal, Local and Territorial Support, under 3U38HM000449-03S1. The contents of this document are solely the responsibility of NACCHO and do not necessarily represent the official position of or endorsement by the Robert Wood Johnson Foundation or the Centers for Disease Control and Prevention. NACCHO is grateful for this support.

NACCHO would like to acknowledge the contributions of NACCHO's QI Leaders Learning Community who were instrumental in the development of this document.