# QUALITY IMPROVEMENT PLAN

*Abstract*

*The Baltimore County Department of Health is committed to the ongoing improvement of the quality of services it provides. This Quality Improvement Plan serves as the foundation of this commitment.*

This Quality Improvement Plan has been approved by the Health Officer and the Board of Health.

**For questions about this plan, contact:**
Laura Culbertson, MSN, RN
410-887-3729
lculbertson@baltimorecountymd.gov

*Adopted: 10/23/15*
*Revised: 8/1/15*

## Table of Contents


| | |
|---|---|
| Purpose & Introduction | 1 |
| Definitions & Acronyms | 3 |
| Description of Quality in Agency | 5 |
| Projects | 7 |
| Training | 8 |
| Communication | 8 |
| Monitoring and Evaluation | 9 |
| Quality Goals, Objectives & Implementation | 9 |
| References & Resources | 11 |


*Development of this template was made possible, in part, by the Ohio Public Health Training Center located in the College of Public Health at The Ohio State University; grant number UB6HP20203, from the Health Resources and Services Administration (HRSA), DHHS, Public Health Training Center Program. Contents are solely the responsibility of the authors and do not necessarily represent the official views of HRSA.*

## Purpose and Introduction

**Executive summary**

The quality improvement (QI) plan describes our agency's commitment to protecting and improving the health, safety, and well-being of the residents of Baltimore County. Through this plan, our mission to improve health is linked to the Ten Essential Public Health Services and our Community Needs Assessment and Strategic Plan. Through development of performance measures and accountability, the Baltimore County Department of Health (BCDH) provides measureable outcomes to monitor its work. The commitment to continuous improvement in the organization creates a culture that develops and maintains a workforce that can meet the challenges of the present and the future.

**Mission, vision and values**

The mission of the BCDH is to provide education, advocacy, linkage to care and treatment from heart to home (HEALTH).

The vision of the BCDH is *Healthy people living, working and playing in Baltimore County*.

**Public health core functions**

The QI plan is based on the public health core functions and the 10 Essential Public Health Services, which are incorporated into the bureau performance measures.

- **Core Function 1 - Assessment**
  Assessment, monitoring, and surveillance of local health problems and needs, and of resources for dealing with them

  Essential Service #1: Monitor health status and understand health issues facing the community

  Essential Service #2: Protect people from health problems and health hazards

- **Core Function 2 - Policy Development**
  Policy development and leadership that fosters local involvement and a sense of ownership that emphasizes local needs and that advocates equitable distribution of public resources and complementary private activities commensurate with community needs

  Essential Service #3: Give people the information they need to make healthy choices

  Essential Service #4: Engage the community to identify and solve health problems

  Essential Services #5: Develop public health policies and plans

- **Core Function 3 - Assurance**
  Assurance that high quality services, including personal health services, needed for the protection of public health in the community are available and accessible to all persons; that the community receives proper consideration in the allocation of federal, state and local resources for public health; and that the community is informed about how to obtain public health, including personal health services, or how to comply with public health requirements.

  Essential Service #6: Enforce public health law and regulations

  Essential Service #7: Help people receive health services

  Essential Service #8: Maintain a competent public health workforce

  Essential Service #9: Evaluate and improve programs

- Core Function 4- System Management
  Essential Service #10: Contribute to and apply the evidence- base of public health

**Quality improvement activities**

Quality improvement activities at BCDH strive to continuously improve services based on the performance measures in the Bureaus. The priorities outlined in the Strategic Plan also align with these performance measures and also the Initiatives of the Local Health Coalition.

- Reduce low birth weight and infant mortality
- Customer satisfaction
- Documentation accuracy and reliability
- Protect the public from infectious disease
- Promote healthy life choices
- Improve access to health care

## Definitions and Acronyms

**Introduction**

A common vocabulary is used agency-wide when communicating about quality and quality improvement. Key terms and frequently used acronyms are listed alphabetically in this section.

**Definitions**

**Quality Improvement in Public Health:** The use of a deliberate and defined improvement process which is focused on activities that are responsive to community needs and improving population health. It refers to 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 which achieve equity and improve the health of the community.

**Quality Improvement (QI):** A systematic, department-wide approach for achieving measurable improvements in the efficiency, effectiveness, performance, accountability, and outcomes of the processes or services provided. Applies use of a formal process (PDSA, etc.) to "dissect" a problem, discover a root cause, implement a solution, measure success/failures, and/or sustain gains.

**Public Health Performance Management:** A system consisting of performance standards, performance measurement, reporting progress and quality improvement. Visible leadership, a customer focus, a culture of quality, strategic alignment and transparency are factors imbedded in this Performance Management system.

**Results Based Accountability (RBA):** A framework that is a disciplined way of thinking and taking action that starts with the ends, defining the change that needs to be made, and working backwards to the means, developing powerful strategies to bring change. Although this is an outcome model, structure and process indicators are also an integral part.

**Plan, Do, Study, Act framework:** An iterative, four-stage, problem-solving model for improving a process or carrying out change. PDSA stems from the scientific method (hypothesize, experiment, evaluate). A fundamental principle of PDSA is iteration. Once a hypothesis is supported or negated, executing the cycle again will extend what one has learned.

**Modular Kaizen:** A process or rapid actions that manage change and improve quality.

**Quality Improvement Plan:** A plan that identifies specific areas of current operational performance for improvement within the agency. These plans can and should cross-reference one another, so a quality improvement initiative that is in the QI Plan may also be in the Strategic Plan.

**Community Health Needs Assessment (CHNA):** The CHNA is a collaborative process conducted in partnership with other organizations. It describes the quantitative (statistics) and qualitative (surveys) data that contribute to an assessment of needs in a community. It additionally identifies factors that contribute to the determinants of health and identifies possible assets and resources to address improvement goals. It forms the basis for strategic planning.

**Strategic Plan (SP):** A plan that describes what an organization wants to achieve, how well it will achieve it and how this achievement is measured. The allocation of resources and decisions on health improvement projects are based on the results of the strategic planning within the organization and with partners.

**Quality 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.

**Storyboard:** Graphic representation of a QI team's quality improvement journey.

**Additional Acronyms**

- BCDH (Baltimore County Department of Health)
- PQI (Performance Quality Improvement Council)
- HHS (Health and Human Services)
- DSS (Department of Social Services)
- LHIC (Local Health Improvement Coalition)
- BOH (Board of Health)

## Description of Quality in Agency

**Introduction**

BCDH has participated in quality assurance activities since 2008 with a formal committee structure. Primarily this consisted of chart audits and fatality reviews. RBA training was provided in 2014 in an effort to instill the performance management model throughout the programs and their collaborative partnerships.

**Description of quality efforts**

The routine adoption of the community health needs assessment and strategic plan model has improved the quality efforts across the BCDH. The QI existing in the BCDH includes chart audits and satisfaction survey results. The analysis of regularly reported data over the last two years has focused actions on specific initiatives that define performance measures. The BCDH participates in the model of a PQI council with committee membership based on achieving various goals that support the strategic plan. Assistance is given to bureau and program directors to develop meaningful performance measures to monitor progress towards goals.

The Board of Health (BOH) is the governing body of the BCDH and provides approval and support of the QI plan.

Bureau and program directors support QI by analyzing their performance measures and facilitating plans to improve measures that are not meeting stated goals.

**Links to other agency plans**

The QI plan is linked to the larger agency of HHS in several areas. Human Resources in HHS is an integral part of the workforce development part of the strategic plan for the BCDH. The PQI Council is an HHS initiative that joins the BCDH and DSS across several committees.

**Quality improvement management, roles and responsibilities**

The PQI Council has five committees: Risk Management, Professional Development, Case Review, Customer Service and Recruitment and Retention. Each committee has a leader and a membership that changes over the course of the life of the committee as employees come and go. Program evaluation, client outcomes, workforce stability and competency, and customer satisfaction are the goals of these committees. The PQI Council head is the agency director, and the QI dedicated staff and other cross agency representatives are included. A separate data workgroup manages the collection of various internal data sources monthly.

Responsibilities:

- Champion QI efforts throughout agency
- Evaluate agency-wide QI efforts (annually)
- Review, revise and approve QI Plan (annually)
- Make recommendations for improvement based on strategic plan priorities, performance management data, customer feedback, employee suggestions, and other relevant data
- Monitor QI and PDSA projects, act to solve problems, and support implementation of quality improvements system-wide

| Council Member | Responsibility |
|---|---|
| Agency director | • Provide vision and direction for QI program<br>• Allocate resources for activities<br>• Reports to Board |
| QI Administrator | • Provides guidance related to the strategic plan<br>• Collaborates with agencies within the PQI Council and HHS<br>• Evaluates special projects and immediate needs for change |
| Bureau Directors (5) | • Identify appropriate staff for QI teams<br>• Facilitate QI teams as needed<br>• Assure QI-related professional development goal for all division staff<br>• Encourage staff to incorporate QI efforts into daily work |
| Committee Chairs | • Meet and work on specific projects<br>• Bring issues to the larger Council<br>• Report on timelines and deliverables to the larger Council |
| Committee Members | • Attend committee meetings and represent the staff across divisions |
| Board of Health | • Provide leadership and support for QI initiatives<br>• Approves priorities<br>• Receives evaluation of the QI plan |

The Council strives for consensus on all decisions and agrees to abide by vote in absence of consensus. Administrative support (distribution of meeting agendas, summaries, and arrangements for meeting needs) is provided by Council members on a rotating basis. QI Committees are accountable to the Council.

All staff within the BCDH will participate in QI projects as requested, identify/nominate QI projects to his/her supervisor or to the Council, participate in QI training, and incorporate QI concepts into daily work based on the performance measures and PDSA projects.

**Quality improvement process**

Each program in the bureaus of the BCDH has performance measures that define what they do, how well do they do it, and whether anyone is better off. Quality indicators can be examined from three perspectives: structure, process and outcome measures. Structural measures review whether the elements needed for quality are present, such as policies, forms, staff qualifications, and technical devices. Process measures reflect specific interventions and the adequacy of care planning to meet patient needs. Both structure and process measures contribute to outcomes. The outcome indicators determine if the performance measures are being met. Any of these measures can be used and analyzed to provide opportunities for quality improvement.

Evidence-based, systematic methods of identifying problem areas within service delivery are key components of quality improvement. QI focuses on quantitative data analysis and identification of areas that limit the outcome of improved population health. Once identified, these areas are analyzed and QI project teams are created using PDSA to develop an analysis of the issue and test a change. Current state diagrams using flow charts and fishbone graphs allow the team to identify issues and where the system flow is blocked. Modular kaizen uses the PDSA team approach when a disruption occurs in business processes. Kaizen further expands the Study step using a check system that only allows actions to be taken when a disruption is fully understood by senior leadership. The analysis of regularly reported data through quantitative measures is used to manage changes that result in improvement in outcomes.

## Projects

**Introduction**

Identification of projects and improvements are based on the performance measures of the programs and departments, as well as the mission and strategic plan. The overall goal is to deliver services that are effective and result in population health improvement.
Each program has QI staff and access to the QI staff for consultation.

**Project selection**

Both program specific and administrative projects are encouraged that meet the goals of the mission and strategic plan. The projects and PDSAs must have measureable outcomes. Priority projects are based on customer satisfaction surveys, chart audits and performance measures that measure program evaluation. A Request for Action or a PDSA may be submitted to the QI staff by any employee. Continuous assessment of the vulnerable populations served by the BCDH, by analyzing both quantitative and qualitative data, is required.

The facilitation of communication between groups and stakeholders is part of the project team selection. Project team members will be selected so that the scope of the problem/project is represented and reflects the performance measures that support the mission and strategic plan.

| | |
|---|---|
| **Current projects and minutes of PQI meetings** | The templates, PDSAs, Requests for Action forms and the PQI meeting minutes are maintained on the agency's shared drive. |

## Training

| | |
|---|---|
| **Introduction** | BCDH has incorporated QI training goals and objectives within the agency Workforce Development and Training Plan. |
| **QI training** | QI training is included in orientation to all employees. Each employee is encouraged to join one of the standing PQI committees. The course includes power points, group sessions and learning objectives that encompass the inclusion of evaluation in every activity, the strategic plan, and communication. Additional training for the QI staff and coordinator is arranged. Performance measure training (Results Based Accountability) is offered for all leadership positions.<br><br>The Quality Coordinator reviews quality forums and publications weekly (NACCHO, PHF, PHQIX Quality Matters, etc.) and forwards items that are appropriate to the management team. Additional training may be offered based on the review of the available communications. The PQI committee meets monthly as a group, and the subcommittee reports are reviewed. |

## Communication

| | |
|---|---|
| **Introduction** | In order to support quality in the BCDH, quality related news is communicated on a regular basis using a variety of methods to staff, the BOH, and the general public. This section describes how initiatives are shared. |
| **Quality sharing** | The BOH approves the QI plan, its revisions, and any updates from the PDSAs that have resulted in process change. The performance measure outcomes from the BCDH are reported to management quarterly. A QI corner is included in the Health and Human Services electronic newsletter. QI initiatives are shared and discussed at staff meetings. At annual staff meetings, there is recognition of QI activities. All PQI council meeting documents and PDSAs are maintained on a shared drive for Staff access. The annual review of the QI plan is shared with the public on the health Department website. Sharing projects and QI initiatives with community partners are encouraged. |

## Monitoring and Evaluation

**Introduction** This section describes the monitoring and evaluation of the QI plan and associated goals.

**QI plan evaluation** The QI plan is reviewed annually. This review is conducted through the PQI council, management and the QI Administrator. The evaluation is used in the presentation to the BOH. The results of the evaluation are used to revise and update the plan. The evaluation addresses performance measures and outcomes as well as progress towards goals and objectives. There is alignment with the CHNA and the SP. Evaluation of the trends in the community through surveys and interviews with community partners is included in the analysis. Participation in PDSA activities and the PQI council meetings is also evaluated. The review of the plan is posted for public review on the BCDH website.

**QI teams** All QI projects and PDSAs are submitted to the QI administrator quarterly and shared with the PQI council. Meetings about progress within the PDSAs will result in a final report using a storyboard or other appropriate format (see Appendix C). The members will evaluate the usefulness of the projects and indicate whether incorporation into performance measures is appropriate. This information will be used in the annual review and revision of the QI plan.

## Goals, Objectives & Implementation

**Introduction** This section presents the overall goals and implementation plan for QI. The strategic plan includes a goal to establish and maintain organizational resources to support QI throughout the BCDH.

| Goal | Objectives & Activities | Measure | Timeframe | Responsible |
|---|---|---|---|---|
| Human resources infrastructure and processes reflect quality expectations | By June, 2016 all position job purpose statements will include the following QI competencies and expectations for involvement in QI.<br>• Contributes to the implementation of the BCHD strategic Plan.<br>• Understands the importance of evaluation for improving policies, programs and services. | Job purpose statements with expectations (see also training section) | 12/1/2015 - 5/31/2016 | Louis LaRicci |
| | By June, 2016, all employees will have one performance goal directly related to the above QI competencies. | Performance goals are listed in Performance Plan documents | 12/1/2015-6/30/2017 | Louis LaRicci, Bureau Directors |

| Goal | Objectives & Activities | Measure | Timeframe | Responsible |
|---|---|---|---|---|
| All staff actively participate in QI activities | Staff will support 3 quality improvement projects through the PQI Council or Program QI activities. | PDSAs, documentation; storyboards | 12/1/2015-6/30/2017 | PQI Council; Program Directors |
| Communication Of QI activities to management | Quarterly the PQI council will present a progress update to management. The PQI committees will provide this information to the QI Administrator. | Reports on performance measures | 12/1/2015-12/1/2016 | QI Administrator |

## References & Resources


Accreditation Coalition Workgroup, Public Health Foundation, June 2009.

The Turning Point Performance Management National Excellence Collaborative. *From silos to systems: Using performance management to improve the public's health.* Washington, D.C.: Public Health Foundation, 2012.

Bialek, R., Duffy, G., Moran, J. *Modular kaizen: dealing with disruptions.* Washington, D.C.: The Public Health Foundation, 2011.

Deming, W. Edwards. *The new economics for industry, government, and education.* Cambridge, Massachusetts Institute if Technology, 1993.

Donabedian, Avedis. *An introduction to quality assurance in health.* Oxford University Press, 2002.

Coordinated by the Center for Disease Control and Prevention. The National Public Health Standards, 2010.

The Institute of Medicine. *Core functions and ten essential public health services,* 1988.

ISO 9000:2009. Quality management principles.

## List of Appendices

**Appendix A:** Commonly Used QI Tools……..page 1

**Appendix B:** Summary of QI Projects……..page 2

**Appendix C:** QI Project Storyboard Template……page 3

**Appendix D:** QI Training Plan……page 4

**Appendix E:** Request for Action form…….page 5

Appendix A

Commonly Used QI Tools

Brainstorming

- Used to create bigger and better ideas
- Encourages open thinking
- Allows team members to build on each other's ideas

Storyboard

- Tells the story of a project
- Starts with PDSA cycles
- Incorporates QI tools
- Used to illustrate an improvement

Cause/Effect Fishbone Diagram

- Used to find and cure causes
- Allows focus on the content of the problem
- Creates a snapshot of the knowledge around a problem

Gantt/Network Chart

- Gives team members the chance to show what their piece of the plan is
- Helps to see what team members are critical to the project

Flowchart

- Used to illustrate a picture of the process
- Allows the team to come to agreement on the steps of the process
- Can be used as a training aid
- Can help the team contrast the actual and the ideal

Histogram

- Used to identify process shape
- Displays data by showing frequency of occurrence
- Illustrates the underlying data distribution

Pareto Charts

- Used to focus on key problems
- Helps teams focus on causes that will have the greatest impact
- Progress is measured in a visible format

Appendix B

Summary of QI Project Examples

| Project Objective | Bureau | Title | Owner |
|---|---|---|---|
| Improve STI rates by testing men in screening clinics | Clinical Services | Men's Health | Renee Youngfellow |
| Improve viral loads in HIV case management clients | Health Care Access | Improve Viral Loads | Phyllis Hall |
| Case conferences for complex client planning | Quality improvement | Case Conferencing | Aronda Howard |
| Improve access to resources for Hispanics | Health Care Access | Hispanic resources | Ana Broadwater |
| Access to behavioral health services | Behavioral Health | Walk in behavioral health at Eastern Family Resource Center | Kimberly Cuthrell |
| Improve referrals to services | All bureaus, divisions and quality improvement staff | No Wrong Door | Gregory Branch |

Appendix C

Storyboard Template

# PDSA (plan-do-study-act) worksheet

Institute of HealthCare Improvement; Continual Impact
Baltimore County Department of Health

What are we trying to accomplish?

To (outcome):

For (who benefits):

So that (what are the benefits):

Conditions (limitations):

Performance Measure:

TOOL: STEP:

CYCLE:

**PLAN**

I plan to:

Steps to execute:

**DO**

What did you observe?

**STUDY**

What did you learn? Did you meet your measurement goal?

**ACT**

What did you conclude from this cycle?

Appendix D

QI Training Plan

Goal: All employees will participate in a quality improvement initiative.

Outcome Measure: Job Purpose Statements for all employees, measured an annual performance evaluation: % compliance.

Goal: QI will be part of all orientation and training activities.

Outcome Measure: All Bureaus will include a basic training in QI on orientation and annually: % compliance.

Goal: Performance Quality Improvement committees Risk Management, Professional Development, Case Review, Customer Service, Recruitment and Retention

Outcome Measure: Standing committees will be represented by bureau staff, integrated with the Department of Social Services where overlap occurs.

Appendix E

Request for Action Form

Performance Quality Improvement

# REQUEST FOR ACTION FORM

Baltimore County Health and Human Services is committed to continuous performance quality improvement (PQI). Any staff member is encouraged to discuss ideas and submit requests that will improve our services. All requests for action (RFA) will be evaluated by the PQI Council.

Thanks from the PQI Council!

The PQI Council will review your suggestion by asking questions such as:

**Outcome-** What is the expected outcome of the successful resolution of this problem?

**Resource requirements-** What resources will be required to solve the problem and implement the solution?

**Control-** Is the solution within PQI Council's jurisdiction?

**Authority**- Does the department have the authority to implement the solution?

**Problem Statement-** What needs improvement?

_____

**Proposed Change-** What do you want to happen?

_____

**Participation-**If a PQI team is formed to address the above, would you be interested in serving on this team?

☐ Yes ☐ No

Name and Extension _____