

# EMBRACING QUALITY IN PUBLIC HEALTH



# ACKNOWLEDGEMENTS

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# LEARNING OBJECTIVES

Welcome! This primer was designed by public health practitioners, for public health practitioners to support Michigan's public health agencies in their pursuit of quality.

Upon completion of this training you will be able to:

1. Describe the basic principles of performance management
2. State how performance management can be used in public health
3. Describe the basic principles of quality improvement
4. Use the tools introduced to start working toward implementing performance management in your agency



# TOP FIVE REASONS TO PARTICIPATE IN THIS ONLINE TRAINING MODULE:

1. It's good for public health programs and services.
2. It increases performance management and quality improvement competency.
3. You will receive a certificate of completion, which documents participation (*and could be used to demonstrate staff development and training in performance management and quality improvement toward meeting national (PHAB) accreditation standards*).
4. It will augment your existing performance management and quality improvement efforts and spread knowledge of performance management and quality improvement.
5. It's free!

# TRAINING NOTES



As you go through this training, please note:

- ➔ In several areas there are links to outside references or resources. Clicking on these links will open up a new browser window. All of these links are also included on the resources page of the training website.
- ➔ This training may be used with or without *Embracing Quality in Public Health: A Practitioner's Quality Improvement Guidebook*, available at: <http://mphiaccredandqi.org/Guidebook.aspx>.
- ➔ Let's get started!



# WHAT IS PERFORMANCE MANAGEMENT?

We come to work every day wanting to do a good job. Public health agencies pursue important goals and have significant responsibilities to protect and improve residents' health in our jurisdictions.



We may have an idea of the quality of our agency's work and how well our agency is performing. However, we may not be clear about what we're trying to accomplish as an agency, how to know if we're making progress, or what strategies to use to make improvements if our agency isn't achieving what we set out to do.

One tool that can be used to regularly measure and monitor performance against goals is **performance management**.

So what is performance management? Simply, it is the practice of **using data to improve performance**.

# WHAT IS PERFORMANCE MANAGEMENT?

Let's define it!

Performance Management is a:

- Systematic process aimed at helping achieve an organization's mission and strategic goals by improving effectiveness, empowering employees, and streamlining the decision-making process. -[Public Health Foundation](#)
- Systematic process by which an agency involves its employees, as individuals and members of a group, in improving organizational effectiveness in the accomplishment of agency mission and goals. -US Office of Personnel Management
- Dynamic process that is designed to better understand program operations, monitor outcomes, and ultimately, help [agencies] become high performing organizations which produce positive outcomes. It involves regular, ongoing performance measurement, reporting, analysis, and program modification. - [Performwell.org](#)

# WHAT IS PERFORMANCE MANAGEMENT?

## So, what does this mean?

### Performance management:

- Is an ongoing process that involves all employees within an organization;
- Involves setting performance objectives based on an organization's mission and goals; and
- Involves measuring performance over time and making improvements based on data.



# WHAT PERFORMANCE MANAGEMENT IS NOT



Performance management, as discussed in this context, does not refer to the process of managing individual employees or the employee performance review process.

# PERFORMANCE MANAGEMENT, EVALUATION, AND QUALITY IMPROVEMENT

Performance management may sound similar to evaluation or quality improvement, and there are areas where they overlap. However, there are differences, too. The table on the next slide highlights the differences between the three.



# PERFORMANCE MANAGEMENT, EVALUATION, AND QUALITY IMPROVEMENT

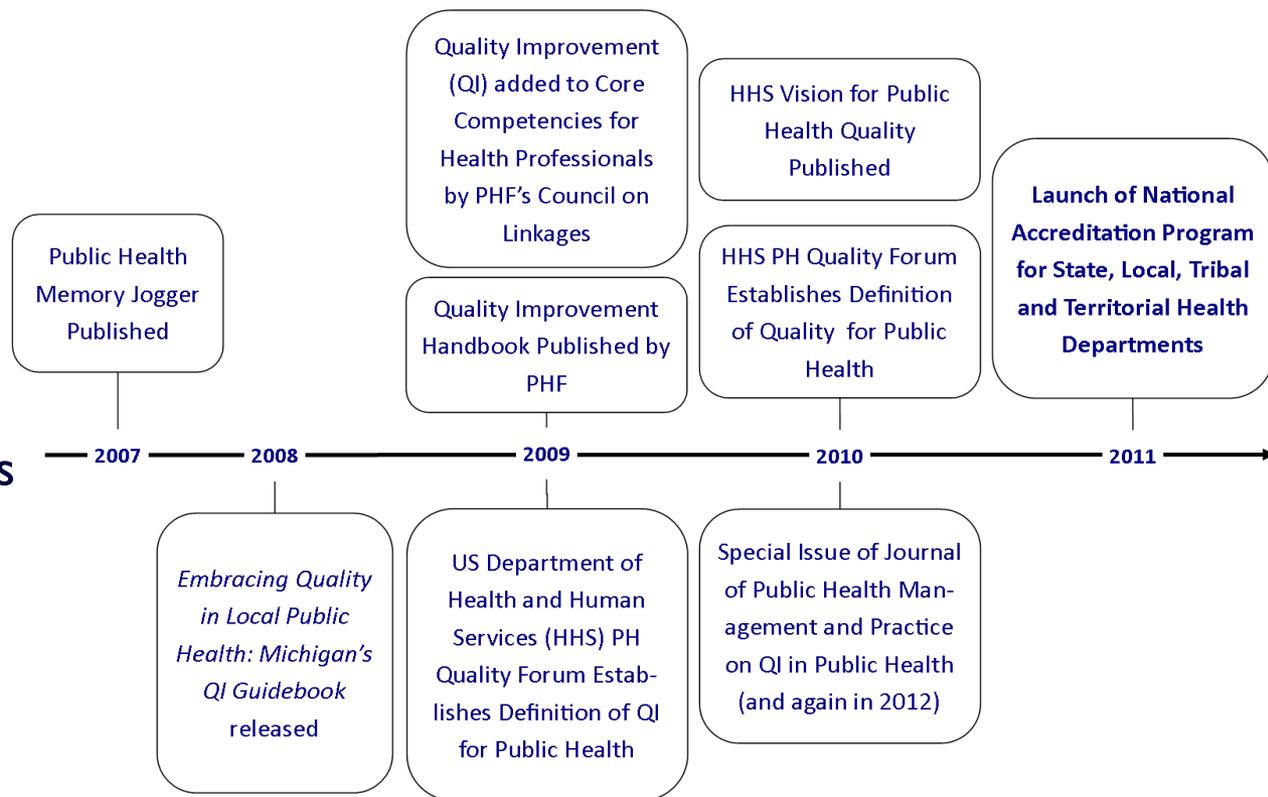
Performance Management	Evaluation	Quality Improvement
Determines current performance in relation to agency standards for performance	Determines whether your program is doing what you intended it to do	Determines whether adjustments you are making to a process are improvements
Examines performance data and progress toward performance goals	Determines whether the effect of the program on participants is caused by a specific program	Uses staff expertise to improve the processes by which the program is implemented
Occurs continuously	Occurs at program outset, and continues through the life of the program	Occurs at specific points in time when an improvement opportunity is identified
Examines performance across the organization	Examines the performance of a specific program	Examines the performance of a process
Conducted by all staff across the organization	Conducted by an outside, objective evaluator	Conducted by program/process stakeholders
Identifies gaps between an organization's performance and standards	Identifies gaps between program design and implementation, and goals and outcomes	Addresses identified gaps in process performance

# PUBLIC HEALTH EVOLVES: RECENT DEVELOPMENTS

## You need to know:

There is substantial momentum at national, state, and local levels toward building quality into the way public health is done in the US.

Performance management is an important piece of the quality framework that national organizations are moving forward. On the next slides, we'll tell you why you should join that movement toward quality in public health.



# THREE GOOD REASONS FOR PERFORMANCE MANAGEMENT

## **I. To be accountable and to improve performance:**

In a time of fewer resources, when you are expected to do more for more people, who face more complex health challenges, public health is increasingly pushed to find the most efficient and effective path from where we are today to our vision of health in Michigan in the future. By focusing an agency on clear performance standards and measures, performance management helps agencies work together across individual programs toward a common agency purpose.



# THREE GOOD REASONS FOR PERFORMANCE MANAGEMENT

## 2. To help your agency know which path is the right path

Performance Management will help your agency:

- ➔ Know which path is the right path, by establishing performance standards,
- ➔ Follow that path without getting off track, by tracking performance measures,
- ➔ Stay focused on where you want to go through regular reporting of progress, and
- ➔ Keep getting better through quality improvement.

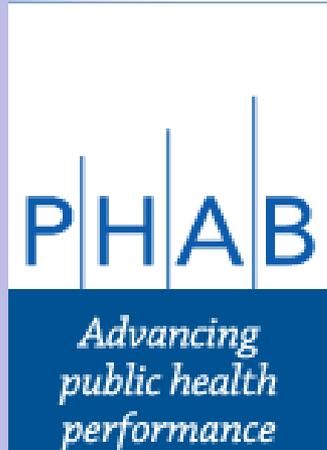
A well designed performance management system provides the right data at the right time, by ensuring data that align with your agency's mission and goals are regularly collected, analyzed, reported, and used to make improvements.



# THREE GOOD REASONS FOR PERFORMANCE MANAGEMENT

## 3. To Achieve National Accreditation

The [Public Health Accreditation Board's](#) (PHAB) National Public Health Accreditation Program launched in the fall of 2011.



This program is open to state, local, tribal, and territorial public health agencies. It is similar to [Michigan's Local Public Health Accreditation Program](#) in that it involves producing evidence or documentation that an agency meets specific standards. However, PHAB's program is not programmatic – its domains and standards cross the agency and align with the 10 Essential Public Health Services.

While Michigan's Local Public Health Accreditation program measures performance against Minimum Program Requirements, PHAB's domains set optimal standards. They describe how, at its best, a public health agency should be doing business.

# THREE GOOD REASONS FOR PERFORMANCE MANAGEMENT

**Domain 9** of PHAB establishes standards for public health agencies' use of a performance management system and the development and implementation of a quality improvement process.

If your health department wants to be accredited through PHAB, you will need to have a performance management system that operates at the organizational level, and a quality improvement process that is integrated across programs.

## Standard 9.1

- Use a Performance Management System to Monitor Achievement of Organizational Objectives

## Standard 9.2

- Develop and Implement Quality Improvement Processes Integrated into Organizational Practice, Programs, Processes, and Interventions

# RECAP

- ➔ **Performance Management** is the practice of using data to improve agency performance.
  
- ➔ In addition to being part of where public health is headed nationally, three good reasons for performance management include:
  1. **To be accountable and to improve performance,**
  2. **To help your agency know which path is the right path, and**
  3. **To achieve National Accreditation**

**A MODEL FOR  
PERFORMANCE  
MANAGEMENT**



# FOUR CORE PIECES

We have seen that there are good reasons to implement a performance management system. It can give your agency all of the pieces of information you need to:

- ➔ Know where you stand relative to national standards,
- ➔ Measure progress toward your goals as a health department,
- ➔ Inform opportunities for quality improvement, and
- ➔ Regularly monitor and report performance.



# A MODEL FOR PERFORMANCE MANAGEMENT

Performance Management provides a roadmap and a set of tools that help guide you along the right path toward improving your agency and programs.

The model for Performance Management in public health was created by the Turning Point Performance Management Collaborative in the 1990s. It comprises four parts:

- ➔ Identification and use of **performance standards**,
- ➔ Identification and collection of **performance measures**,
- ➔ An ongoing process and timeline for **reporting of progress**, and
- ➔ Use of a **quality improvement process** to respond to identified needs.

## PUBLIC HEALTH PERFORMANCE MANAGEMENT SYSTEM



For more information on Turning Point Performance Management, visit

[http://www.phf.org/programs/PMtoolkit/Pages/Turning\\_Point\\_Performance\\_Management\\_Refresh.aspx](http://www.phf.org/programs/PMtoolkit/Pages/Turning_Point_Performance_Management_Refresh.aspx).

# A MODEL FOR PERFORMANCE MANAGEMENT



Said another way:

- ➡ **Performance Standards** help agencies decide on the right path to take.
- ➡ **Performance Measures** help agencies follow their path without getting off track.
- ➡ **Reporting of Progress** helps agencies determine if they have made the right choices.
- ➡ **Quality Improvement** helps agencies keep getting better.



# A BRIEF LOOK INTO EACH COMPONENT



The process of building a performance management system begins with identifying **performance standards**.

Performance standards are, “objective standards or guidelines that are used to assess an organization’s performance.”

– Turning Point Performance Management National Excellence Collaborative, 2004

# PERFORMANCE STANDARDS: STAGE I

Under the Turning Point model, there are four steps to identify performance standards.

1. **Identify relevant standards** starting with agency goals as described in your vision, mission, and strategic plan, and looking to generally accepted standards for performance to find standards that align.
2. **Select indicators** of performance that align with each standard that can be tracked over time.
3. **Set targets** for the performance of your agency related to each indicator.
4. **Communicate expectations** for performance with agency staff and stakeholders to build awareness and gain buy-in.



# PERFORMANCE STANDARDS: WHERE TO LOOK



There are many sources for identifying public health performance standards. Examples of these sources are listed on the right.

Keep in mind that a performance management system should cross all health department functions. It should not just focus on health determinants and outcomes.

## Health Determinants & Status

- Healthy People 2020
- National Prevention Strategy

## Resources & Services

- PHAB Standards, including those under Domains 2, 3, 7, and 10
- National Public Health Performance Standards Program (CDC)
- Michigan Local Public Health Accreditation Minimum Program Requirements

## Community Engagement

- PHAB Standards, including those under Domains 1, 4, 5, and 6
- CDC Principles of Community Engagement
- Scotland National Standards for Community Engagement
- CDC Public Health Preparedness Capabilities, National Standards for State and Local Planning

## Workforce

- Core Competencies for Public Health Professionals (PHF)
- PHAB Standards, including those under Domain 8



Once you have set performance standards, it is time to set performance measures. Performance Measurement involves:

- **Refining indicators** so that they make sense for your agency,
- **Defining measures** for each standard so you know what data you need,
- **Developing data systems** to make sure data are collected routinely and stored appropriately, and
- **Collecting data** on a regular and ongoing basis.

# STANDARDS, MEASURES, AND INDICATORS – OH, MY!

You may have noticed that the Turning Point model uses the term “indicators” under both the Performance Standards and Performance Measures quadrants. As Turning Point uses this term, indicators refer to categories of performance measures that define a standard.

➡ For example, customer satisfaction could be an indicator of the quality of personal and population-based health services.

Outside the Turning Point model, the literature on performance management and quality improvement uses the term “indicator” in a way that is more synonymous with how we have defined “measure” throughout this training.

➡ For example, the percent of clients indicating they are “very satisfied,” with the services received from the public health agency could be an indicator or measure of the quality of personal and population-based health services.

Whichever definition of “indicators” your agency chooses to use, make sure to use the term consistently throughout your documentation to avoid confusion!

# PERFORMANCE MEASUREMENT: STAGE 2

Your performance measures should be “quantitative measures of capacities, processes, or outcomes relevant to assessment of your performance indicators.”

– Turning Point Performance Management National Excellence Collaborative, 2004

Selected measures should let you know if you’re getting closer to achieving your performance standards.

For example, if your agency is pursuing the Healthy People 2020 performance standard of a 10% improvement in the percent of live births that were preterm you might include performance measures such as:

- ➡ The percentage of live births that were preterm in your county in the calendar year.
- ➡ The percentage of women served by the tribal health clinic who receive prenatal care in the first trimester.
- ➡ The percentage of OB/GYN providers receiving educational information from the health department about preventable preterm birth.



# CREATING MEASURES: A QUICK GUIDE



# CREATING PERFORMANCE MEASURES

There are often many different ways to measure progress toward any one performance standard. In order to create effective measures of your performance standards, there are several considerations to keep in mind:

- ➡ Start by looking at your performance standard, or goal for performance, and brainstorm a list of things you could count or observe that would help you determine how well your agency is achieving that standard.
  - ➡ Also gather information on how others are measuring their performance in that area. No need to reinvent the wheel!
- ➡ Next look at each possible measure and consider what data you already have collected, what data are readily available through other sources, or what data you could realistically collect.
  - ➡ If a possible measure just doesn't have a reliable source and couldn't realistically be tracked consistently over time, drop it from the list.
- ➡ Determine which measures are related to your activities and are within your agency's control or influence. Eliminate measures that are outside your agency's scope.

# CREATING PERFORMANCE MEASURES

- ➔ Your final list of possible measures should be:
  - ➔ Clearly and logically related to your standard,
  - ➔ Feasible to collect over time, and
  - ➔ Within the scope of your influence.
  
- ➔ At this point you can use all the measures on your list (you may have just a few left), or select the measures that you think best reflect performance related to your standard.

# CREATING PERFORMANCE MEASURES

Let's look at another example of creating a performance measure based on a set standard:

**Performance Standard:** By December 31, 2015, increase the proportion of low-income children and adolescents who received any preventive dental service during the past year to 29.4%. (Source: Healthy People 2020)

## **Possible Performance Measures:**

- ➡ Percent of low-income children with access to school-based health centers with an oral health component
- ➡ Percent of low-income children who live within driving distance of local health departments, Federally Qualified Health Centers, and tribal health centers that have an oral health component
- ➡ Percent of low-income children who have dental insurance
- ➡ Percent of eligible low-income children with Medicaid dental coverage
- ➡ Percent of low-income children covered by Medicaid with at least one preventive dental service in the past 12 months
- ➡ Percent of Medicaid families receiving information on Medicaid dental care providers in their county

# CREATING PERFORMANCE MEASURES

The next slides illustrate the process for finalizing your performance measure selection. Also provided is possible reasoning for retaining measures, or eliminating measures that are not clearly linked to the performance standard, are not feasible to collect, or are outside the agency's sphere of influence.

Eliminated measures are crossed out. Reasons for retaining or removing measures from the list of possible measures are provided next to a .

# CREATING PERFORMANCE MEASURES

Your next step in creating performance measures is to examine the possible measures to determine which are most feasible for use.

- ~~➔ Number of low-income children with access to school-based health centers with an oral health component~~
- ~~➔ Number of low-income children who live within driving distance of local health departments, Federally Qualified Health Centers, and tribal health centers that have an oral health component~~
  - 🌟 While these may seem simple to collect, it may not be feasible to secure the necessary funding to increase the number of school-based health centers, local health departments, FQHCs, or tribal health centers that offer oral health care.
- ~~➔ Number of low-income children who have dental insurance~~
  - 🌟 Data related to the number of children who have dental insurance may be difficult to accurately capture.

# CREATING PERFORMANCE MEASURES

- ➡ Number of eligible low-income children with Medicaid dental coverage
- ➡ Number of low-income children covered by Medicaid with at least one preventive dental service in the past 12 months
- ➡ Percent of Medicaid families receiving information on Medicaid dental care providers in their county.
  - 🌟 These data are realistic to collect, are indicators noted by Healthy People 2020, and are likely within the scope of the health department's influence. They also measure activities aimed at increasing access, which aligns with the performance standard.

After you have set in motion your system for performance measurement, you will need a system and timeline for **reporting progress**. This helps ensure that standards and measures are regularly reviewed and used. It also creates a system that is transparent, which helps drive monitoring and improvement.

Your system for reporting should include plans for:

- ➔ **Analyzing data** on a set schedule and interpreting findings based on your standards and measures
- ➔ **Reporting results broadly** through an established, routine mechanism that reaches all relevant stakeholders
- ➔ **Developing a regular reporting cycle** so that staff know when to analyze data and create reports, and to ensure that managers and others are kept regularly apprised of progress.



# REPORTING OF PROGRESS: STAGE 3

Reports on progress should:

- ➔ Compare performance measures with their target and they should link to overall goals;
- ➔ Provide context and be targeted to the audience – the content depends on the purpose and intended users;
- ➔ Be routine – reports should be produced on a schedule;
- ➔ Be created in a way that is straightforward, easy to produce, and easy to understand; and
- ➔ Be communicated and shared across the agency.



**Quality Improvement** is the final component of a performance management system. It involves:

- ➔ **Use of data** to improve policies, programs, and outcomes,
- ➔ **Managing changes** through use of quality improvement methodology, and
- ➔ **Creating a learning organization**, where repeated cycles of quality improvement projects lead to a culture of ongoing learning and improvement.



As part of a performance management system, an established quality improvement process:

- ➔ Brings consistency to the agency's approach to managing performance,
- ➔ Motivates improvement, and
- ➔ Helps capture lessons learned.



# QUALITY IMPROVEMENT: STAGE 4

Quality improvement is where a performance management system creates opportunity for meaningful improvement within your public health agency. It is about learning to use data on how you are performing to drive activities that lead to true improvement.



# CONNECTING THE FOUR PIECES

Your performance management system can take a lot of different forms. A practical way to get started is setting up a table that links an agency or program goal to a recognized performance standard, one or more performance measures, the activities you put in place to address your measures, the relevant data source(s), the current status and target, who is responsible for reporting and monitoring, and how you will improve. For example:

<b>Agency/Program Goal:</b>						
Performance Standard – What do you want to achieve?	Performance Measures – How will you measure progress?	Data Sources – Where will performance data come from?	Current Status – Where are we now?	Performance Target – Where do we want to be?	Responsible – Who will monitor and report performance?	Quality Improvement Strategy – How do we get better?

# RECAP

➡ There are four pieces to an effective performance management system:

## 1. Performance Standards

- Identify relevant standards
- Select indicators
- Set targets
- Communicate expectations

## 2. Performance Measures

- Refine indicators
- Define realistic measures
- Develop data systems
- Collect data

## 3. Reporting of Progress

- Analyze data
- Report results broadly
- Develop a regular cycle of reporting

## 4. Quality Improvement

- Use data for decisions
- Manage changes
- Create a learning organization



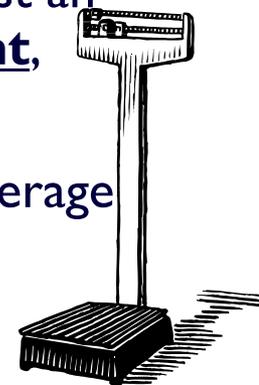
# PERFORMANCE MANAGEMENT EXAMPLE

To help better understand how performance management works, let's go through a simple example.

During your annual physical, your doctor recommends that you lose weight. To determine a reliable indicator of healthy weight, you look at Body Mass Index (BMI) tables and identify the normal weight range for your height. With that **standard** in mind, you decide to **measure** weekly weight loss, with a target of losing 2 pounds per week. You also decide to **measure** caloric intake and physical activity, with a daily target of limiting your calories to 1800 and walking a mile. You monitor your weight weekly using your bathroom scale and **report** (to yourself!) your weight on a spreadsheet.

After tracking weight loss for four weeks, you find that you have only lost an average of one pound per week, so you decide to test an **improvement**, which involves adding an additional mile of walking per day.

Four weeks later, you find that you are meeting your goal of losing an average of two pounds per week.



# PERFORMANCE MANAGEMENT EXAMPLE



The weight loss example provided is not an example of organizational performance management, but it is a very simple example that applies the concepts of performance management. Let's look at the pieces of the performance management used in the example:

- ➔ **Performance Standards:** Looking to the Body Mass Index chart for an ideal weight range, and looking to lose two pounds per week are based on standard recommendations for weight and weight loss.
- ➔ **Performance Measures:** Recording weight, calories, and physical activity in a spreadsheet on a set schedule allows you to look at relevant data over time.
- ➔ **Reporting of Progress:** Examining the data on a set schedule allows you to monitor the data and observe trends.
- ➔ **Quality Improvement:** When the data showed that the targeted weight loss of two pounds per week wasn't met, adding additional physical activity was tested as an improvement strategy.



# TAKING THE FIRST STEPS TOWARD PERFORMANCE MANAGEMENT

Developing a performance management system can feel daunting, but there are a few, basic first steps that can really help make the process manageable:

- I. Train staff in what performance management is and how it can help the organization. By completing this training you are already on your way!
- II. Take a look at the performance standards and measures your agency already uses, such as those connected to the Michigan Local Public Health Accreditation Program or to grant requirements, as well as existing reporting mechanisms and QI processes. These are building blocks for an agency-wide system.
- III. Complete a community or state health assessment and agency self assessment, or review the results of assessments you have already completed, as well as your agency strategic plan. Your assessment results and strategic plan should drive the development of performance standards and measures.

# TAKING THE FIRST STEPS TOWARD PERFORMANCE MANAGEMENT

- IV. Identify a few key gaps in performance and identify performance standards that your agency would like to meet in each area. Then identify short-term performance measures that are tied to related activities. Remember, these might already exist!
- V. Start measuring and reporting performance. If you find you are performing up to the performance standard, take time to celebrate your success! If you find that there is room for improvement, you may have just found a good area to implement a quality improvement process.



# TAKING THE FIRST STEPS TOWARD PERFORMANCE MANAGEMENT

If you have not completed a health assessment, agency assessment, or strategic plan, here are some resources to look into:

- ➡ [Turning Point Performance Management Self-Assessment Tool](#)
- ➡ [Baldrige Criteria for Performance Excellence Self-Assessment](#)
- ➡ [PHAB National Public Health Department Accreditation Readiness Checklists and Standards & Measures](#)
- ➡ [National Public Health Performance Standards Program Performance Assessments](#)
- ➡ [Mobilizing for Action through Planning and Partnerships \(MAPP\)](#)
- ➡ [NACCHO's \*Strategic Planning: A How-To Guide for LHDs\*](#)

# TAKING THE FIRST STEPS TOWARD PERFORMANCE MANAGEMENT

As we have seen, creating a performance management system is about much more than just measures. In order to fully implement a performance management system, you will need to:

- ➡ Have agency-wide standards and measures that link to your vision and mission;
- ➡ Determine how and when data related to your measures will be recorded;
- ➡ Determine how and when data will be analyzed and reported;
- ➡ Assign responsibility for collecting, analyzing, and reporting of data; and
- ➡ Use the system to identify areas where you can implement quality improvement activities to improve performance.



# DOING QUALITY IMPROVEMENT

QI is an essential piece of performance management. When your performance management system shows a gap that is not closing between a performance target and your agency's current performance, you have an opportunity to implement QI to improve programs and services.

Like creating performance measures, QI takes some learning and practice. The following slides provide a quick primer to the Plan-Do-Study-Act QI methodology.



# QUALITY IMPROVEMENT (QI) IN PUBLIC HEALTH TERMS

Let's start out by defining what we mean by QI. The Accreditation Coalition Workgroup developed the following public health-specific definition in 2009:

“QI is the use of a *deliberate and defined improvement process*, such as **Plan-Do-Study-Act**, 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 measureable improvement* 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.”

Bialek, R., Beitsch, L. M., Cofsky, A., Corso, L., Moran, J., Riley, W., & Russo, P. (2009). Proceedings from Accreditation Coalition Workgroup: *Quality Improvement in Public Health*.

# QI IN PUBLIC HEALTH TERMS



This public health-specific definition highlights that QI, like performance management, is:

- ➡ A deliberate and defined process
- ➡ It is continuous and ongoing
- ➡ It refers to measureable indicators of service or process quality

Although there are many methods of QI, and there are highly trained quality improvement experts out there, it isn't necessary to become highly trained in QI to meaningfully incorporate QI into your daily work. The idea is for you to become a public health professional that uses QI, not a QI professional that works in public health.

# FOUNDATIONS OF QI

When applying PDSA there are three key questions and four QI principles that will guide your efforts.

The three key questions to keep front and center during all QI work are:

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

Additionally, these four basic principles will serve as guideposts in your QI work:

- ➡ Develop a strong customer (client) focus
- ➡ Continually improve all processes
- ➡ Involve employees
- ➡ Mobilize both data and team knowledge to improve decision-making

# PLAN-DO-STUDY-ACT

According to a survey by the National Association of State and Territorial Health Officials, Plan-Do-Study-Act (PDSA) is the method most widely used in the field of public health. Additionally, a group of public health practitioners in Michigan, during participation in the Robert Wood Johnson Foundation's Multi-State Learning Collaborative, reviewed several models for QI and selected PDSA as the model to use in Michigan's work. Sixteen Michigan local health departments successfully used the PDSA method in their QI work to improve programs and services.

Additionally, we recommend using PDSA because:

- ➡ It is a mature method
- ➡ It has been proven in many contexts
- ➡ It offers frontline staff the opportunity to have significant input
- ➡ It makes sense because it is derived from the scientific method
- ➡ It works!



# PDSA BASICS

The PDSA cycle, also known as Plan-Do-Check-Act (PDCA), was made popular by Dr. W. Edwards Deming, as a method for improving quality. Some important things to note about PDSA:

- ➡ It involves four stages (Plan, Do, Study, and Act) and nine steps that are designed to be repeated (cycle) over time.
- ➡ It can be used on a small or large scale, by an individual or a team, within or across departments, agencies, or organizations.
- ➡ It is designed to improve existing processes and to help find more efficient and effective ways of getting work done. It is not used for program planning or implementing new programs, it is used to improve what you already do.
- ➡ It is rooted in data, so that you can determine where you're starting from (baseline), whether you've made a change, whether you've made the right change, and whether the change you've made is an improvement.

# PLAN-DO-STUDY-ACT

PDSA begins with developing a plan. This is the stage of the cycle that involves the most steps, and usually takes the most time to complete!

Planning begins with identifying a problem (Step One) and assembling a QI team (Step Two) that can address the problem.

The team then uses existing data and root cause analysis to identify what the true causes of that problem might be, mapping the process to understand the existing activities that led to the problematic issue (Step Three), brainstorming and conducting background research to look for possible solutions (Step Four), and working to develop a theory of improvement (Step Five) that can be tested.

# PLAN-DO-STUDY-ACT – AIM STATEMENTS

During the Plan stage, your team will also set a target for improvement in the form of an **Aim Statement**. Writing an aim statement is a critically important component of improving a process, which takes into consideration the three key questions used in applying QI:

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

An aim statement is a **concise, specific written statement that defines precisely what the team hopes to accomplish with its QI efforts**. Aim statements should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound), to facilitate a clear picture of exactly how you will meet the goals of your QI project.

Here's an example SMART aim statement from a real public health QI project:  
“By January 15, 2011, food service workers from Chinese restaurants located in Grand Traverse County will demonstrate a 20% increase in the ServSafe exam passing rate.” Grand Traverse County Health Department, Traverse City, MI

# PLAN-DO-STUDY-ACT – THE IMPORTANCE OF DATA

As with performance management, the basis of QI is data. Indeed, making data-driven decisions is a key element of most QI approaches. In public health, as in many other fields, data should play a key role in making informed decisions, and it should also drive your QI efforts.

When doing QI, you use data throughout all four stages of the PDSA cycle. You start your QI project by looking at baseline data to see how the process you want to change is performing now. You collect data when you implement the improvement activity to see how the process reacted to the change. You compare the baseline data to the post-improvement data to see if the change you made resulted in the outcome you set forth to achieve. Finally, you decide, based on the data, if the improvement you made was sufficient, or if you need to try something else to achieve the desired results.



# PLAN-DO-STUDY-ACT – DETERMINING ROOT CAUSE

Once you have your team assembled, your problem identified, and your data gathered, you will want to determine the root cause of your problem, drawing on data and team knowledge to identify why your process is problematic.

You may find upon examining your data that the cause of your problem is very different from what you thought. Using data, team knowledge, and feedback from customers will enable you to better identify what problem you're truly having and how you can best address it to ensure that the change you implement is a true improvement.



QI tools such as a fishbone diagram, the 5 Whys, Check Sheets, Pareto Charts, and others will help you organize team knowledge and data to help you identify the true root cause of your problem.

For more information on these tools and others, see Chapter 7: Quality Improvement Tools of [\*Embracing Quality in Public Health\*](#).

# PLAN-DO-STUDY-ACT

During the Plan stage, you will also want to develop your theory of improvement, which states how your improvement will lead to the outcome you desire. This is your prediction of what will happen as a result of your QI project.

Your theory does not have to be the detailed, scientific statement that you might envision when you think of theories. Instead, your theory may be more of a hunch or prediction of what you think will happen if you make a certain change.

You can use an “*If...Then*” approach to describe your theory, i.e. if the team tries X, then Y will happen.



# PLAN-Do-STUDY-ACT

The Do stage of PDSA is when you will **test your improvement theory (Step Six)**. During this stage, you create and implement a small-scale test of the change to your process. While testing your theory, you will want to collect, chart, and display data to determine the effectiveness of the improvement. You will also want to document problems, unexpected observations, and unintended side effects, because these occurrences will aid in the learning process.



# PLAN-DO-STUDY-ACT

The purpose of the Study Phase is to use the data you collected during the previous two stages to determine if the test of your theory was successful by using your data to **study the results of your test** (Step Seven). To do this, you may begin by comparing the results of your test to the baseline data and the measures of success documented in the aim statement. Some questions to consider include:

- ➔ Did your test work? How do you know?
- ➔ Did the results match your theory/prediction?  
What do your data show?
- ➔ Are there trends in your data?
- ➔ Did you have unintended side effects?
- ➔ Is there improvement?
- ➔ Do you need to test the improvement under other conditions?



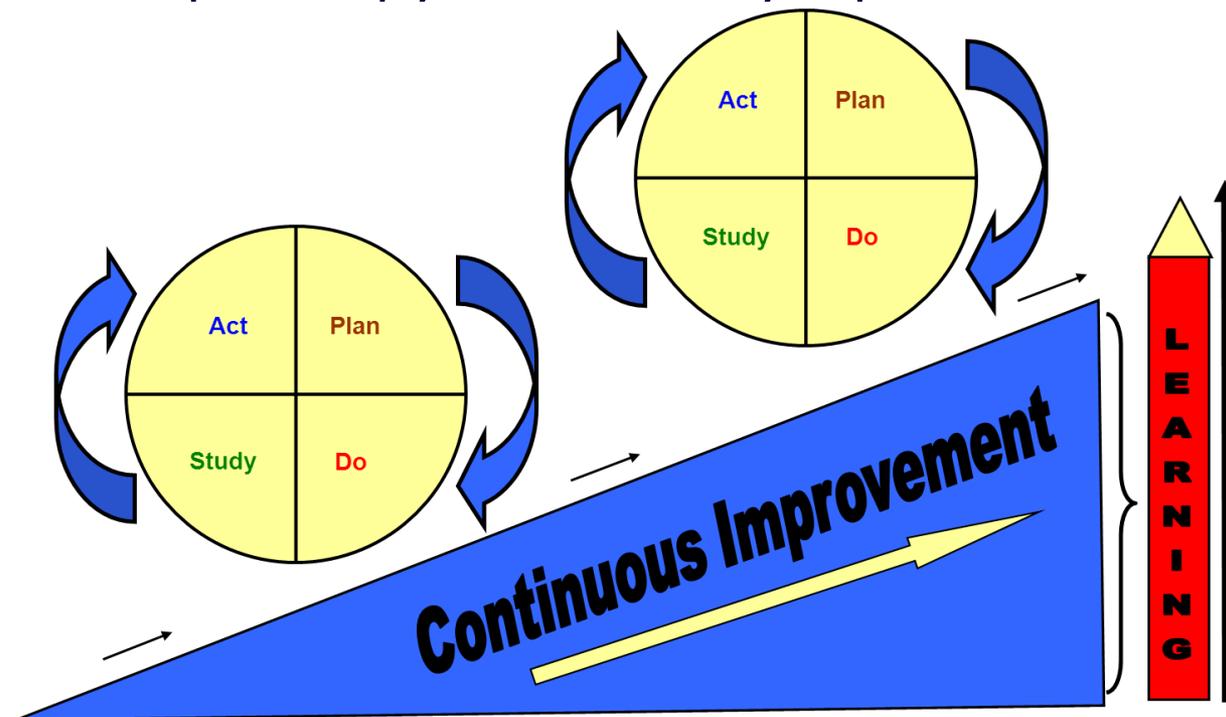
# PLAN-DO-STUDY-ACT

The Act stage of PDSA, involves taking action on what you learned. The purpose of this stage is to either **standardize your improvement** if your test was successful, **or develop a new theory** for improvement if it was not (Step Eight).



# PLAN-DO-STUDY-ACT

Do not be discouraged when you complete a PDSA cycle and find that you did not achieve your aim. A successful PDSA cycle is one where your team learned something! You may find out that you need to go back to the Plan stage and gather more baseline data, re-examine root cause, or develop a new theory. The PDSA cycle is called a “cycle” for that very reason – it is intended to be a repeatable set of steps to help you continuously improve and learn.



# PLAN-DO-STUDY-ACT

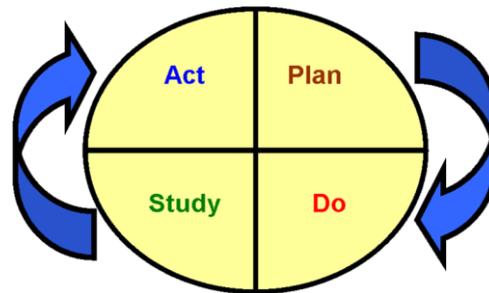


During the final step of the PDSA cycle, you will **establish future plans** (Step Nine). During this step you will work to preserve your gains by acting to sustain your change, and make long-term plans for additional improvements. Alternately, this may be when you begin anew with the PDSA cycle if your change was not an improvement.

Additionally, celebrate your successes and communicate the results of your project. Regardless of the outcome of your PDSA work, you worked hard to improve and learned a lot along the way. That deserves to be recognized and your lessons learned shared!

# RECAP

- ➔ QI is an essential piece of performance management.
- ➔ Plan-Do-Study-Act (PDSA) cycle is a method for improving quality, involving four stages (Plan, Do, Study, and Act) and nine steps that are designed to be repeated (cycle) over time.
- ➔ The PDSA cycle is called a “cycle” for that very reason – it is intended to be a repeatable set of steps to help you continuously improve and learn.





# PERFORMANCE MANAGEMENT IN PUBLIC HEALTH: POINTS TO REMEMBER

You've just read a lot of information, so in conclusion we thought we'd provide you with some important points to remember:

- ➡ A fully functioning performance management system contains:
  - ➡ Performance Standards that are tied to accepted standards and set goals for how your health department should be performing,
  - ➡ Performance Measures related to the standards that enable your health department to assess performance over time,
  - ➡ Reports of Progress that enable staff, partners, and leaders to see how the health department is performing on all measures and standards, and
  - ➡ Quality Improvement activities that are implemented when there is a gap between how the health department is performing and its standards for performance.

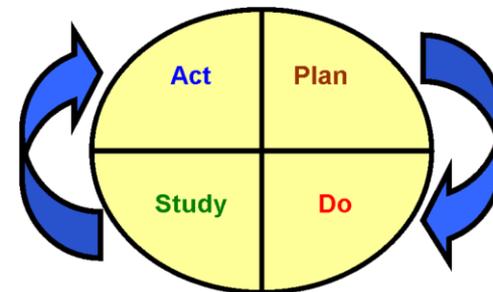
# PERFORMANCE MANAGEMENT IN PUBLIC HEALTH: A FEW TIPS

- ➡ Performance management is key to continuously monitoring and improving your programs, services, and overall agency performance
- ➡ Active support of leadership is crucial to be successful in any organization-level change, including implementation of a performance management system.
- ➡ When selecting standards, focus on what really matters to your health department. Don't try to set standards for everything!
- ➡ When selecting measures, be realistic about the data you have available or can easily gather over time.
- ➡ Report information in a way that is usable for those viewing the reports.
- ➡ Public health regularly collects data to observe how programs are operating. The purpose of performance management is to collect data to use, and it isn't performance management unless you act on the data.

# PERFORMANCE MANAGEMENT IN PUBLIC HEALTH

Performance management and quality improvement are usable, practical, helpful tools that will help your agency achieve its vision and mission. Your system does not have to be perfect to be helpful, and you can start with any component of what we described. Our key message to you is to:

Start now.  
Start today.  
Just start.



Public health will be better because you did.  
Best wishes on your quality journey!

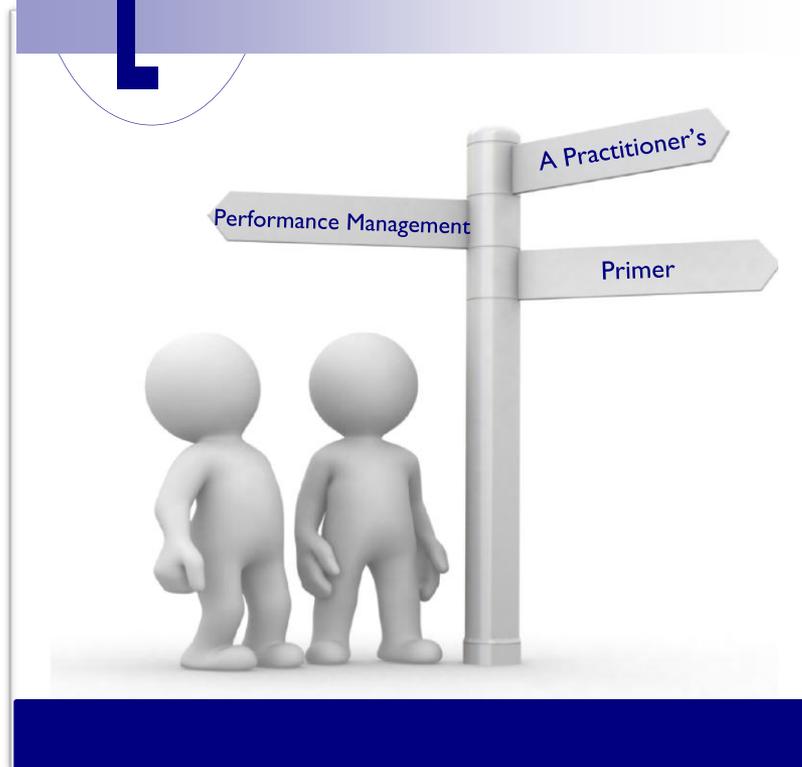


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# EMBRACING QUALITY IN PUBLIC HEALTH



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