

Performance Management Measurement Matrix Tool

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"The goal is to turn data into information, and information into insight" - Carly Fiorini² "Then, use the insight to take action to make improvements" – J. Moran

Introduction:

Performance measurement is the regular collection and reporting of data to track work produced and results achieved. *Performance management* is using information from measures and converting it into useful knowledge. Then, taking this useful knowledge and applying it to manage your program efficiently and effectively. Knowledge is obtained by using *Quality Improvement (QI) Graphic Tools To Help Us Understand Data*³.

Why do we measure? There are several answers to that question. The most common answers are to:

- 1. answer questions
- 2. show results
- 3. demonstrate value
- 4. justify our budget
- 5. identify opportunities for improvement
- 6. manage results and hold the gains

Measurement is a key ingredient of any improvement program. To make lasting improvements, everyone in an organization needs to understand how to measure and monitor processes and be able to use that data and information to prioritize where improvements need to be made. Improvement consumes scarce organizational resources and should be focused on the most important and strategic needs of the organization. Measurement helps to shift attention and focus to areas with important needs. Measures need to be robust and believable. You can check the robustness of your measures in the Measurement Matrix shown in Figure 1.

Types of Measures:

We can measure capacity, process, and outcomes which give three critical perspectives to the overall performance of a process. Capacity measures dictate whether resources to meet current demand of the product or service are available. Process measures allow the monitoring

¹ Authors biographies are at the end of the article

² <u>https://www.linkedin.com/pulse/15-great-performance-measurement-quotes-lee-bennett</u>

³ <u>https://services.phf.org/pm-toolkit/approaches-to-performance-management/#pm-approaches</u>

of the continuing effectiveness of activities performed to create an acceptable product or service. Outcome measures gauge the satisfaction of the end user with the product or service once it is delivered or experienced.

Types of Data Measures:

Qualitative data are descriptive, rather than numeric. These data are less concrete and less easily measurable than quantitative data. Qualitative data analysis describes information that is not quantitatively measured or counted. It refers to the words or labels used to describe certain characteristics or traits such as:

- Yes/No
- Dead/Alive
- Male/Female
- Good/Bad
- Pass/Fail

Quantitative data come in the form of numbers or values. Quantitative data refer to any information that can be quantified, counted, or measured, and given a numerical value. These data describe things in concrete and easily measurable terms. Because quantitative data are numeric and measurable, they tend to be more easily analyzed. These data often are thought of as being very objective and have a reputation for reliability.

Using the Measurement Matrix:

The measurement matrix (Figure 1) is a tool that can help teams systematically evaluate the robustness of their measures by defining and developing a deeper understanding of what is being measured, what the measure is telling us, and what the anticipated impact is to stakeholders.



Figure 1

To start using the matrix you need to:

Step 1: Define the objective to be Measured, the measure you are planning to use, the current baseline of the measure (from where we are starting), the amount of change desired, and by when we need the change to be completed – timing.

Step 2: Determine what the measure is going to measure⁴:

- Capacity an output measure which is a measure of activity
- Process describes how the process is performing in its current state. It is very
 important to understand how the current state is operating and define the
 baseline before attempting any type of improvement activities
- Outcomes measures the result of a process output. An outcome measure is used to measure the success of a process

Step 3: Determine the amount of effort to obtain the measurement:

⁴ Modular *kaizen*: Dealing with Disruptions, Bialek, R, Duffy, G, Moran, J. Washington, DC: the Public Health Foundation; 2011, P. 71.

https://www.phf.org/resourcestools/Pages/Modular kaizen Dealing with Disruptions.aspx

- High the measure does not exist and we need to set up a way to collect the data, analyze it, and determine the baseline. If this is the case, it may be better to see if a different measure could be used because this is a resource intensive process
- Medium the measure exists but have not been kept up to date, or the measure is not captured as frequently as desired
- Low the measure exists and have a frequency that can be monitored

Step 4: What will it measure?

- Effectiveness does the process output conform to stated requirements? Goal: Doing the right things
- Efficiency does the process produce the required output at minimum resource cost? Goal: Doing the right things well.
- Quality does the output meet customer requirements and expectations? Goal: Having high customer satisfaction
- Timeliness does the process produce its output correctly and on time? Goal: Efficiency and few errors/wastes
- Productivity how well does the process use its inputs to produce its output? Goal: Establish the ratio of the amount of output per unit of input
- Output how much does the process produce each time? Goal: Establish the ratio of the amount of output per unit of input

Step 5: What will the measure tell us about the objective being measured?

- Descriptive what happened?
- Diagnostic why did it happen?
- Predictive what will happen?
- Prescriptive where to focus improvement resources?

Step 6: What is the overall anticipated impact expected if we are successful in achieving the objective? Below are a few examples of impact areas:

- Community how will the change benefit the community we serve?
- Health Department what impact will it have within our health department?
- Internal Processes will internal processes improve?
- Customer Satisfaction will our customers notice a difference?
- Business will it help us expand our business?
- Other applicable to your situation

Appendix A (Figure 2) shows a quantitative measure and **Appendix B** (Figure 3) shows a qualitative measure using the matrix.

Summary:

We measure our organization's processes to understand what is happening currently in the organization. We need a real-time snapshot that tells us the status of systems, applications, and the business.

Then we need to turn the data into action. It is not just what you know; it is what you do with your knowledge in the moment of opportunity or crisis. Data by itself, without action being taken on the knowledge it provides us is useless to the on-going efficiency and improvement of the organization.

A well-performing Performance Management System with robust measurements will help the organization:

- Boost communication by having transparent and efficient real-time data sharing for everyone to see and review.
- Mitigate risk by having predictive measures in place which will help. minimize issues before they arise by taking proactive action.
- Build a centralized database where information can be accessed quickly and reliably. This will eliminate silo based individual databases that may use different IT platforms.
- Make data-driven decisions for the allocation of resources to ensure program efforts are most impactful.
- Track the progress of program strategies against organizational goals to identify gaps and opportunities for optimization, ensuring timely adjustments are made to enhance outcomes and drive continuous improvement.

Appendix A: Quantitative Measure (Figure 2)

Objective: Improve the rate of communicable disease cases investigated within 24 hours of reporting

Measures: Improve the % of communicable disease cases investigated within 24 hours of reporting.

Objective: <u>Case investigations</u>

Measurement Matrix

Measure: Increase within 24 hours

 Type of Measure Capacity – amount we can handle Process Outcomes 	 Amount of Effort To Implement The Measure High Medium ✓ Low – already in place 	Baseline: 60% Target: 90% Amount of Change: 30% Timing: 6 months
What Will It Measure • Effectiveness ✓ Efficiency • Quality ✓ Timeliness • Productivity • Output	What Does It Tell Us Descriptive Diagnostic Predictive Prescriptive	
Anticipated Impact To: • Community • Health Department • Internal Processes Figu	 Customer Satisfaction Business Other 	

Anticipated Impact:

- Community better health
- Health Department faster proactive response to cases
- Internal processes standardized and repeatable at all locations
- Customer Satisfaction those with communicable diseases will see faster responses to their needs
- Business less workers calling in sick

Appendix B: Qualitative Measure (Figure 3)

Objective: Community Outreach and Education

Measure: # of educational sessions conducted in schools, workplaces, and community centers.

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Measurement Matrix

Measure: # Sessions Conducted

✓ ✓ ●	<u>Type of Measure</u> Capacity – do we have the personnel Process – develop how to do it Outcomes	 Amount of Effort To Implement The Measure High ✓ Medium – need to develop tracking system Low 	Baseline: 1 sessions/6months Target: 10 sessions/6 months Amount of Change: 9 sessions
• • • •	<u>What Will It Measure</u> Effectiveness – will the message be correct Efficiency Quality Timeliness – before disease outbreaks Productivity Output	What Does It Tell Us ✓ Descriptive – Did the sessions happen ✓ Diagnostic – how effective was the message • Predictive • Prescriptive	
	 Anticipated Impact To: Community Health Department Internal Processes 	Customer SatisfactionBusinessOther	



Anticipated Impact:

- Community better understanding of communicable diseases
- Health Department better reputation in the community
- Internal processes standardized and repeatable at all locations
- Customer Satisfaction educated customer is the best customer
- Business aware workforce who will understand how to be healthy

Authors Bio:

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Melissa Touma, MPH, is Director of the Public Health Infrastructure Program at the Association of State and Territorial Health Officials. In her role, Melissa provides technical assistance and capacity building expertise to health agency teams seeking to advance their Foundational Capabilities goals. Previously, Melissa coordinated accreditation, strategic planning, quality improvement, performance management, and health improvement planning efforts at the Connecticut Department of Public Health.