

Defining Measures and Developing/Implementing Countermeasures



★ FAQ 6 in a series committed to assisting the HOPA membership along the quality improvement journey

Hypothesize solutions to the problems



Measurement: Continuous measurement of sequential tests or interventions

Outcome: Sustained improvement of process

Defining Measures

Outcome Measure: Links back to numeric goal within aim statement; indicates how the system is working; quantifies impact on patients and system improvement

Process Measure: Checks if the steps in the system are performing as planned; indicates whether the system is on track to achieve outcome measures; evaluates positive or negative impact from implementation

Balance Measure: Evaluates how implementations in one part of the system are impacting other parts; measured throughout the project life cycle

Examples of Measures

Outcome Measures	Process Measures	Balance Measures
Percent of patients discharged before noon after planned inpatient chemotherapy	Percent of discharge orders placed after 10am and percent of discharge medications dispensed after 11am	When reducing patients' length of stay in the hospital, are readmission rates increasing?
Percent of invasive fungal infections in patients with acute myeloid leukemia	Percent of patients prescribed posaconazole for invasive fungal infection prevention	Do the oncology team and pharmacy department have the resources to effectively process expensive anti-fungal prescriptions when posaconazole prescribing rates increase?
Average number of hemoglobin A1c levels checked for patients on PIK3CA inhibitors	Percent of patients whose hemoglobin A1c was measured every 3 months after PIK3CA inhibitor initiation in the first year of therapy	Are we impacting the primary care team's plan for diabetes management in patients started on PIK3CA inhibitors?

Brainstorming

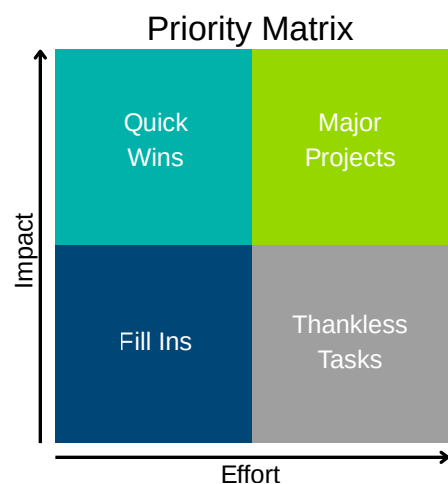
Using the Priority Matrix for team brainstorming:



1. Ensure that all team members are available for discussion. Use sticky notes to encourage participation. Think **DOVE!**
2. Use data collection, including Pareto chart and fishbone diagram, to brainstorm solutions. (See *FAQ 4 for more on these tools.*)
3. Organize ideas by level of effort and level of impact. Team members should place sticky notes in the section of the priority matrix that fits best.
4. Once all ideas are added to the matrix, focus on the low effort, high-impact solutions first. Save other ideas for later to plan for future major projects or PDSA cycles. (See *FAQ 2 for more on the PDSA cycle.*)



- D** • Defer judgment
O • Offbeat is okay
V • Vast number of ideas
E • Evaluate later



Implementation Plan

1. Choose a solution in the priority matrix to pilot your first intervention. Choose a small population with a short period of time to evaluate impact.
2. Choose a small population with a short period of time to evaluate impact.
3. Communicate rollout to all team members affected by intervention.

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



Source: Adapted from The Improvement Guide (2009)

References:

1. Centers for Medicare & Medicaid Services. Quality measure and quality improvement. Accessed: 13 May 2025. <https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/mms/quality-measure-and-quality-improvement>.
2. Banchs R, Pop M. Chapter 18: How to Identify and Prioritize the Most Likely Cause of the Problem. *The Quality Improvement Challenge: A Practice Guide for Physicians*. Wiley Blackwell. 2021: 228.
3. Banchs R, Pop M. Chapter 20: Develop and Prioritize Your Improvement Ideas. *The Quality Improvement Challenge: A Practice Guide for Physicians*. Wiley Blackwell. 2021: 266-268.
4. *Family of Measures Template (2021) Excellence through Quality Improvement Project (E-QiP)*. Accessed: 13 May 2025. <https://e-qip.ca/resources/family-of-measures-and-measurement-plan-worksheet/>.
5. *How to Improve: Model for Improvement: Establishing Measures* (no date) *Institute for Healthcare Improvement*. Accessed: 13 May 2025. <https://www.ihl.org/how-improve-model-improvement-establishing-measures>.

Stay tuned for future future topics:

QI models and frameworks ~ QI tools ~ Developing QI projects: Understanding the problem, diagnosing the problem, data in quality, defining measures and countermeasures, assessing results ~ Quality indicators and metrics ~ How to teach residents about quality ~ Designing a quality rotation vs longitudinal project ~ Sharing results

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