

Quality Improvement Basics

Data Basics

StratisHealth



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Objectives



After completing this module, participants will be able to

- Describe how data is used to show quality improvement
- Differentiate between Qualitative vs. Quantitative data and why each is used
- Distinguish between measure processes vs. measure outcomes and why each is used

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Valid and Reliable

- Data must be valid – accurately measuring what is intended
- Data must be reliable – achieving consistent results even when measured multiple times or by different people



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Using Data for Quality Improvement

- Data is a cornerstone of QI
- Describes how well current systems are working
- Can help identify what happens when changes are applied
- Identifies variations in a process
- Helps monitor processes over time
- Documents successful performance

Source: <https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf>

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Quantitative vs. Qualitative Data

Quantitative Data



- Involves the use of numbers expressed in measurable units
- Objective and produced through processes that are verifiable, replicable, and not subject to interpretation

Examples in a health care setting include:

- Finding the average of a specific laboratory value
- Calculating the frequencies of timely access to care
- Calculating the percentages of patients that receive an appropriate health screening

Source: <https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf>



Qualitative Data

- Qualitative methods collect data with descriptive characteristics and can be categorical
- Qualitative data is observable but not measurable

Common strategies for collecting qualitative data in a health care setting are:

- Patient and staff satisfaction surveys
- Focus group discussions
- Independent observations
- Race, ethnicity, language (REL data)

Source: <https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf>

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Quantitative and Qualitative Examples

Quantitative

- Temperature
- Height (72 inches)
- Weight (150 lbs.)
- Time (40 minutes)
- Blood glucose level (5.6 mmol/L)
- Blood pressure (140/90 mmHg)

Qualitative

- Notes from meetings
- Discussions
- Narratives, such as an encounter note
- Race, Ethnicity, Language
- Blood type

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Process vs. Outcome Measures

Process Measures



Purpose

- Assess our processes:
 - Are they still working for us?
 - Are we using them?
 - Are we using them accurately?
- If a process or procedure is changed as part of a corrective action, it is important to know if the change actually occurred
- If the outcome improves, you want to know if it was linked to an actual change in process

Examples

- The number of patients that receive a second blood pressure check if the first measurement is elevated during an encounter
- The number of patients over 18 who are screened for pre-diabetes that are not already diagnosed with diabetes or gestational diabetes



Outcome Measures

Purpose

- Measure our outcomes
 - What was the impact on the community members?
 - Did the change in process have the desired result?
- Measuring the process is not enough if your goal is to assess whether the change you have put in place had the desired effect
- You want to see a change in outcome
 - typically focused on how the patient's health has been affected

Examples

- The percentage of patients diagnosed with hypertension that have their BP under control
- The percentage of patients diagnosed with prediabetes that have not progressed to a diabetes diagnosis within one year of the original diagnosis

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In Summary

- Data is the cornerstone of quality improvement and is used to help us understand if our current systems are working and where the variations are as well as identifying success.
- Quantitative data deals with numbers and statistics, while qualitative data deals with words and meanings. Quantitative methods allow you to systematically measure variables and test hypotheses. Qualitative methods allow you to explore concepts and experiences in more detail.
- Process Measures assess our processes and Outcome Measures evaluate outcomes.

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Stratis Health is a nonprofit organization that leads collaboration and innovation in health care quality and safety and serves as a trusted expert in facilitating improvement for people and communities.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$740,000 with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official view of, nor an endorsement, by HRSA, HHS or the U.S. Government. (June 2023)

