



**MEDLINE  
UNIVERSITY**

**LEADERSHIP:  
OUTCOMES  
MEASUREMENT**



## OUTCOMES MEASUREMENT

The Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Act of 2010 were some of the first steps in the process of healthcare reform which take aim at increasing the value in healthcare. The PPACA sends a strong signal that quality will be the central driver of change.<sup>1</sup>

These acts create an environment dictating reporting and directing attention to outcomes measurement and improvement, in turn rewarding value and quality in care. Quality metrics will advance, with more robust measures of clinical quality and outcomes emerging, including measures to assess health outcomes and functional status of patients, management and coordination of care across episodes of care and finally, care transitions for patients across the continuum of providers.

As a result, measurement and management of healthcare outcomes have become topics of major focus across the healthcare continuum. Although the field of outcomes assessment has not fully matured, a number of tools and methods can be reliably used to produce valid information. Healthcare outcomes have been described as “measures of the end result of what happens to patients as a consequence of their encounter(s) with the healthcare system,”<sup>2</sup> and can be used by an organization for both internal and external quality improvement.

### Measuring clinical processes and outcomes involve four steps:

1. Identifying areas for improvement
2. Selecting appropriate areas to assess
3. Obtaining a baseline of current practices (Obtaining a baseline of current practices helps an organization better understand areas of improvement, prioritize actions and establish a basis of comparison to be used now and in the future.)
4. Reassessing the effect of improvement efforts on performance (Measuring performance repetitively helps an organization determine if quality improvements implemented are successful.)<sup>3</sup>

Avedis Donabedian, a physician and noted health services researcher, outlined three constructs from which inferences can be made regarding quality: outcome, process and structure. In his model, structure leads to process and process leads to outcomes.<sup>2</sup>

Outcomes can be classified into several categories: morbidity, mortality, pain, functional status, satisfaction, and costs. **Process** is what is being done in the care of patients and how it is being performed. The “what is being done” is generally technical in nature and can be easily quantified, such as looking at medications and tests. The “how it is being performed” involves looking at deliverables such as communication and interpersonal style, qualities that are difficult to assess and quantify, but important nonetheless. **Structure** primarily refers to characteristics of the healthcare system, providers and patients. Provider characteristics may include demographics and specialty training, and a variety of tools exist to help quantify patient risk.

One course of action for measuring, analyzing, and improving outcomes may be to perform an outcomes study. The first step in designing the study is to select the topic, making sure the topic is well defined, quantifiable, has potential for improvement and has an evidence base. Once the topic is determined, it is important to consider the following questions:

1. What is the study question? (e.g. What do you hope to find out?)
2. What are the goals or purposes of the study?
3. What data are available?
4. What are the appropriate data collection tools and have they been determined to be valid and reliable tools for the intended use?
5. What are the appropriate statistical tests to utilize the outcomes data?
6. What are the limitations of the study?
7. What are the outcomes results to be used for: quality or accountability?
8. What point of care is the outcome being measured?
9. What other organizational and non-health care factors influence the relationship between process of care and the outcome?<sup>2</sup>



When performing Outcomes studies, always validate the reliability of the data and the collection tools selected for use prior to data collection. Validate that the tool selected for measurement can adequately perform the measurements needed, as validity and reliability in data collection are critical to determining accurate results. Care must be taken if the collected information is going to be appropriately used in decision-making.

Measuring healthcare outcomes for groups of patients is a key factor at all levels of medical care management. While systematic collection and analysis of outcomes can add to the intricacy of the medical encounter, if appropriately collected, the outcomes information can aid in medical decision-making and the future enhancement of medical care.

## References

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2. Practical Considerations in the Measurement of Outcomes in Healthcare. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145439/>. Accessed May 2, 2014.
3. How do we measure and improve clinical processes and outcomes? Available at: <http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/PatientQuality/measureprocesses.html>. Accessed May 2, 2014.