AHRMM
Association for Healthcare Resource & Materials Management of the American Hospital Association
Advancing the Healthcare Supply Chain

CQO: The Future of Healthcare Supply Chain

Measuring the Correlation Between Cost, Quality, and Outcomes in Healthcare: an Industry Guidance Document

Executive Summary

Today's healthcare environment is rapidly changing. Hospitals and healthcare systems are being bombarded by myriad challenges, including the fluctuating economy, cuts in Medicare reimbursements, and new procedural, financial, and reporting requirements of the Affordable Care Act (ACA). All of these factors are pressuring healthcare organizations to reduce costs and improve patient outcomes without sacrificing the quality of care.

The healthcare industry can no longer afford to follow these changes. Healthcare organizations must anticipate emerging challenges and take the lead in addressing them if they are to survive and thrive into the future. They can do this by adopting a more holistic view of the correlation between cost (expenditures as they relate to supplies, services, and other areas in supply chain control [Total Cost of Ownership – TCO] as well as the total cost of care), quality (patient-centered care aimed at achieving the best possible clinical outcomes), and outcomes (financial reimbursement driven by outstanding clinical care at the appropriate costs) as opposed to viewing each independently.

Supply chain is particularly well-suited to assume a leadership role in this area, as it already occupies a cross-disciplinary role within hospitals and health systems by working across departments, administration, and clinical hierarchies to maximize efficiency and value, as well as helping hospital finance teams weigh revenue per procedure against procedure expenses to achieve overall financial targets. AHRMM is ready continuing to lead the supply chain profession as it embraces the intersection of cost, quality, and outcomes (CQO).

AHRMM recommends using CQO metrics to assist supply chain leaders in taking a more holistic approach to measuring their organization's performance.

Metrics Development

AHRMM board member Brent Johnson of Intermountain Healthcare assembled a multidisciplinary task force with expertise in supply chain research, strategy, and leadership to discuss and identify a set of metrics to guide the healthcare supply chain profession as it transitions its focus of operation to the intersection of cost, quality, and outcomes. This task force included:

- Brent Johnson, Intermountain Healthcare, Chair
- Florence Doyle, Catholic Health East
- Mary Beth Lang, University of Pittsburgh Medical Center
- Eric O'Daffer, Gartner AMR Healthcare Supply Chain Group
- Dennis Orthman, Strategic Marketplace Initiatives
- Jerry Van Vactor, U.S. Army Medical Service Corps
- John Willi, Dana-Farber Cancer Institute, Inc.

> "We see this as a stake in the ground – an initial, albeit imperfect attempt to help supply chain professionals look at supply chain measurement from a new perspective. In addition to looking at

cost, the CQO metrics account for value as perceived by the customer, or patient, and account for ACA requirements as they relate to reimbursement. CQO metrics are a work in progress – we will continue to explore this topic, and we welcome contributions from the industry. As CQO develops further, the metrics that healthcare organizations choose to implement will need to be documented and evaluated so that others in the industry can learn from best practices."

- *AHRMM Board Member Brent Johnson, Intermountain Healthcare*

Resources

Recognizing that the traditional metrics for measuring the supply chain (i.e. supply cost per adjusted discharge) are no longer viable measurements for an organization looking for a meaningful indicator of its activities and performance, the task force set out to develop new metrics for supply chain assessment that would take into account the aspects of cost, quality, and outcomes. They used the following resources/consulted the following organizations in their metrics research and development:

- Clinical metrics research within each of their organizations
- Centers for Medicare & Medicaid Services (CMS)
- Gartner Research
- Institute for Healthcare Improvement (IHI)
- MedAssets
- National Quality Forum
- Premier
- The Dartmouth Institute
- Truven Health Analytics

Guiding Principles of Recommendations

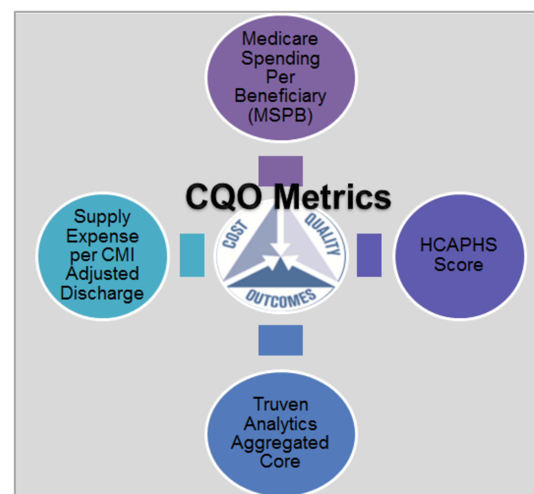
The task force established the following guiding principles for its CQO metrics development process:

- The main audience is healthcare supply chain leaders versus clinical or executive leaders
- Metrics connected to quality and outcomes should be publicly available
- They should be metrics that can be consistently tracked
- The recommended metrics are primarily intended for internal use by a healthcare organization to monitor directional thinking and trending versus for industry benchmarking purposes
- Supply chain leaders should be viewed as key contributors of excellence

Recommended Metrics

AHRMM recommends the following CQO metrics to enable healthcare organizations to facilitate the transition from a cost-centric measurement of supply chain to one that includes quality and outcomes.

- ***Cost***: Supply expense per Case Mix Index (CMI) adjusted discharge[1]
- **Quality**: Hospital Consumer Assessment of Healthcare Providers and Systems (HCAPHS) survey score
- **Outcome**: Truven Analytics aggregated score[2]



[1] Define costs as "all non-direct labor expenditures excluding capital equipment." Use AHRMM-HFMA definition of supply expense: The net cost of all tangible items that are expensed including freight, standard distribution cost, and sales and use tax minus rebates. This would exclude labor, labor-related expenses and services as well as some tangible items that are frequently provided as part of service costs.

[2] If not Truven aggregated score, then several of their individual metrics could be chosen.

A Phased Approach

A healthcare organization's strategy for integrating CQO metrics should include the following phases:

- ***Phase 1 - Awareness*** **–** Become familiar with the metrics and why they should be a part of the materials management/supply chain leader's strategy

- ***Phase 2 - Engagement*** **–** Within the hospital: using resources provided by AHRMM and other advocates in the healthcare supply chain industry, supply chain professionals provide reasoning on how supply chain can and should get engaged with the clinical, quality, and outcomes (financial reimbursement) side of the healthcare industry. Within the industry: AHRMM advocates, educates, and collaborates with its parent company, the American Hospital Association, and other healthcare organizations representing hospital administration, finance, and clinicians.

- ***Phase 3 - Leadership*** **–** Help lead the charge for CQO metrics measurement within each organization and the industry

Considerations

When implementing the proposed CQO metrics, healthcare organizations should take the following into consideration:

- ***Stay Forward Thinking***: The recommended metrics are valid for ***TODAY***. As an industry, we must maintain a forwarding-looking view and keep abreast of how healthcare reform will impact our industry not only today but also well into the future, including the potential impacts of emerging CMS requirements.[3]
- ***Take a Holistic Approach***: A metric may be cost-, quality-, or outcomes-specific but should be presented in a way that the three components of cost, quality, and outcomes are seen as intersecting. It is important to take a new more holistic approach to the intersection where cost, quality, and outcomes merge.

Join the CQO Movement

Take a lead in shaping the future of healthcare by joining the Cost, Quality, and Outcomes (CQO) Movement today. For more information visit, http://www.ahrmm.org/ahrmm/resources_and_tools/cost_quality_outcomes/index.shtml

---

[3] For example, MSPB (Medicare Spend Per Beneficiary) might be the best "one" metric, or an overriding metric layered on top of CQO, when it becomes a required standard in 2014