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Data Analytics Drives Strategic Planning in Healthcare

By Lesley Clack, ScD, MS, and Jacqueline Woeppel, ScD, MBA, RHIA, CCS

WHILE HEALTHCARE ORGANIZATIONS are flooded with data, many organizations struggle with how to use that data to their advantage. The healthcare industry generates as much as 30 percent of the world's stored data.¹ Data analytics must be employed for any organization to make full use of their data for decision-making and strategic planning. Researchers have found that companies that adopt data-driven strategies often have six percent higher profits and five percent higher productivity than their competition.² Healthcare companies can directly benefit from using data analytics in strategic planning in terms of cost reduction, improved quality and outcomes, and improved coordination of care.

Using Analytics to Reduce Cost

Don't be afraid of data. The first step in making a financial decision should be all individuals involved in strategic planning, such as health information management (HIM)/information technology (IT) managers and senior administrators, accessing and reading financial reports created via data analytics. The detailed reports are meant to provide evidence for managers and leaders in organizations to make transformative changes. Connecting the dots between cost centers and translating data to address cost drivers—such as over utilization, unnecessary emergency room visits, hospital admissions, and duplicate ancillary services—is fundamental.

Take, for example, a surgical practice that analyzes their cholecystectomy episode of care (EOC) report and finds that the total cost of care (also known as TCOC) is above the acceptable limits. If the practice were to continue like this, they could potentially incur financial losses. The healthcare organization must decide whether to discontinue providing operations,

take a loss, or make a change.

Financial analysis of the surgical practice's cost centers illustrates a significant difference between hospital and outpatient surgical center costs. Based on data analysis and clinical knowledge, a strategic plan could be developed. For example, the surgical organization could decide to relocate a portion of future patients (who met clinical criteria) from the hospital to the outpatient surgical center. This new change would allow patients to continue to receive surgical services, reduce episode (bundled) costs, and avoid economic losses by avoiding risk sharing (penalties).

Next, an organization should consider a multidisciplinary approach to understanding reports. This can be done through a simple committee or a task force, either formal or informal. This gives organizations an opportunity to collaborate with clinical, operations, and finance departments. The task force can provide support and clinical reasoning behind the information found in the reports.

For example, analysts can drill down to patient-level data and evaluate high cost center variances. A physician or nurse can offer a clinical explanation as to why a patient may have a higher-than-average cost. This may include high-cost prescription dispensing due to allergies or comorbidities such as asthma and diabetes. Clinical reviews often spur strategies, such as clinical documentation improvement (CDI) programs, that can improve population health and risk adjustment scores. In addition, operations and financial expertise offer workflow strategies to support the billing claims process.

Equally important is managing the data. The data and information contained in healthcare reports can be voluminous and can overwhelm the most skilled analyst. Analysts should

select the method that best meets the needs of their organization in capturing and maintaining the data. The software chosen for data analysis, such as Access or Oracle, might depend on the size of the organization, the number of reports received, and skills of the users. Nevertheless, this is an important step as it allows the organization to analyze, present (i.e., create charts), and develop plans to make changes in the short-term as well as identify any trends in the long-term.

After spending time collecting, monitoring, and analyzing data, presenting or reframing where data matters is a crucial strategy in communicating and generating recommendations. Remember, when presenting data, simple is better. Data should be presented in a clear, visually appealing way using appropriate charts.

Finally, consider the stakeholder and create presentations geared to them. Physicians may be interested in differences in clinical outcomes between physicians in order to promote best practices. In contrast, executives may want the information reframed to understand the cost differences between two clinic locations.

Quality and Outcomes Impacted by Analytics

Reimbursement or gainsharing payments may be linked to improved outcomes or quality metrics. Therefore, analyzing quality measures and indicators can help to identify gaps in care. Monitoring reports can offer a way to verify this information. Specifically, discrepancies may occur for an organization when, despite utilizing best practices, quality metrics fail to be reported. Quality reports are driven by coding and claims, and this is an important strategy that must work in tandem with clinical best practices.

For example, if a quality measure such as a HIV screening service is provided by the clinical organization but the lab fails to submit the claim, or a lab order is not on the algorithm to be captured, then it may appear that there is a gap in care when in fact there is not. If this metric is tied to gainsharing, the practice will lose out on incentive opportunities. Therefore, a key strategy to ensure gainsharing would be to develop a workflow blueprint to efficiently document, code, and submit claims to close the quality gaps.

Outreach strategies may include communicating with the laboratory to ensure the lab orders correlate with what is being provided by the lab and meets the EOC coding algorithm. If this is not the case, communicate the appropriate change with the providing laboratory and consider an alternate way to capture ancillary services.

The quality and cost discussion cannot be complete without talking about risk (i.e., complications and comorbidities). Briefly, risk adjustment factor (RAF) permits managed care organizations to fairly compare patient populations and costs with each other. Risk scores are a mechanism that can help administrators understand their organization's population and its implications by identifying areas to improve clinical, financial, and operational systems. Therefore, organizations should

include a plan to analyze risk scores to identify gaps. Documentation and RAF coding strategies are a must for healthcare organizations to be successful in today's value-based environment.

Analytics' Role in Care Coordination

The Agency for Healthcare Research and Quality (AHRQ) defines care coordination as the "deliberate organization of patient care activities between two or more participants involved in a patient's care to facilitate the appropriate delivery of healthcare services," and defines the organization of care as the "marshalling of personnel and other resources needed to carry out all required patient care activities," that is managed by "the exchange of information among participants responsible for different aspects of care."³

Analytics can be used to collect, organize, and analyze data for coordination of care in order to improve patient outcomes. Through the analysis of data, organizations can evaluate typical care coordination issues, such as lack of transportation and missed appointments, which often affect outcomes such as emergency room visits and hospital readmissions. Analysis of this data can lead to implementation of strategies that can help to improve care coordination and reduce costs.

Analytics Help Determine Direction, Focus

Strategic planning is important in any healthcare organization for framing its direction and focus. Cost, quality, and outcomes are all significant areas that must be addressed in any healthcare organization's strategic plan. Through the use of analytics to examine internal data, organizations can develop strategies for improvement that can lead to reduced costs, improved quality and outcomes, and improved quality of care. ●

Notes

1. Huesch, Marco D. and Timothy J. Mosher. "Using It or Losing It? The Case for Data Scientists Inside Health Care." *NEJM Catalyst*, May 4, 2017. <https://catalyst.nejm.org/case-data-scientists-inside-health-care/>.
2. Biesendorf, Stefan, David Court, and Paul Wilmott. "Big Data: What's Your Plan?" *McKinsey Quarterly*, March 2013. www.mckinsey.com/business-functions/digital-mckinsey/our-insights/big-data-whats-your-plan.
3. Agency for Healthcare Research and Quality. "Care Coordination Measures Atlas Update, Chapter 2: What is Care Coordination?" June 2014. www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/atlas2014/chapter2.html.

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