Performance Strategies
for Healthcare Leaders

Use Healthcare Business Intelligence to Improve Performance
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Effective Analytics is All About Holistic Use of Information

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Healthcare business intelligence is top of mind for nearly everyone in healthcare. Everyone knows that using computerized algorithms to measure the work of people and programs can lead to vast improvements in care outcomes, patient satisfaction and financial performance. However, the great challenge for many organizations is not in the analysis of data, but in its capture and use across the enterprise.

The foundational goal of any analytic initiative should be:

Collect once, repurpose, and use many times.

For example, a patient's electronic health record (EHR) must accurately capture data for the immediate use of the clinician in providing care, but that same data also can be used for analytics outside that particular encounter. In years past, this data was collected and stored in isolated silos within the organization. It was seldom, if ever, seen by other stakeholders who could make use of it. The healthcare industry has long recognized the strategic value of information. However, making data collection and its use an integral part of the strategic vision is still largely unrealized by many organizations.

Information Ecology

Making information available to stakeholders is not enough. The organization must first develop a holistic view of the total "information ecology" and the areas for which data can be repurposed, including:

- Quality measurement that provides internal and external accountability to patients and staff
- Clinical decision support that empowers a safe, effective environment
- Population health that enables aggregate trending and understanding of patients we serve
- Health system management that supports a data-driven strategic plan
- Health information exchange that provides access to community data for identifying best care practices
- Clinical research that provides ongoing support of evidence-based medicine

The information demands of each category vary by organization, but all require some access to repurposed data. Because these needs are enterprisewide, they require an effective "information governance function." This process requires proactively devising systems for capturing information accurately while ensuring there are clear policies, training, applications and program evaluations.

Same Data, Multi-purpose Analysis

Analytics usually focus on financial performance (revenue cycle, cost, and business performance) or clinical performance (quality measures and outcomes). Increasingly, analytics tools are beginning to aggregate the analysis of both clinical and financial

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performance to enable multiple views of the same data. Whatever the purpose of the analysis, the tool analyzes the same body of information. The differences are in how it's sorted, the logic that is used, and what groupings or classifications are employed to extract useful conclusions about performance.

Looking at the data in a holistic way differs from previous analysis efforts, where information was collected for one specific purpose rather than for broad analysis. For example, an acute care hospital is looking at the performance of its cardiovascular surgical unit. A common database is generated through the treatment of patients. Clinical analysis of that database can produce results related to quality measures such as the cardiovascular health of patients, adverse drug events and patient satisfaction. Financial analysis of the same database generates trends on reimbursements, material costs, and facility usage. But it is the linking of those data that enables organizations to understand the clinical impact of financial decisions and vice versa.

Moving from information silos to an environment conducive to enterprisewide analysis requires an understanding of the data sets for each particular purpose. It also demands that collection and storage be standardized to ensure both accuracy and ease of extraction.

Defining Information

Enterprisewide analytics requires the use of a system of data definitions. When information is captured on patient-level activity, it always means the same thing no matter who collects it.

Standardizing data within the organization is just the beginning. With the proliferation of health information exchanges (HIE), organizations will not just be reading and interpreting their own data, they will also be reading and interpreting data produced at other institutions.

This sharing of data presents a real challenge, but tools are becoming increasingly available that make such a transition possible. More sophisticated EHRs have information foundation layers that provide a simple messaging framework and use a single vocabulary for sharing data across systems. When this framework for sharing common data elements is fully operational, we can envision information being captured and mapped to a common data set — even if it wasn't recorded using the same terms.

Leadership Must See Data Analytics as Strategic

For the use of data analytics to be successful, it must begin with strong leadership from the very top of the organization. Because this process is so complex and disruptive and essentially transformative, it must be a part of the essential strategic vision of the hospital or health system.

Just as importantly, leadership must have a balanced focus and understand that it's not only the technology, but the information itself that is critical to success.

Linda Kloss has served as CEO of the American Health Information Management Association since 1986. She is retiring from leadership of the 53,000 member organization for HIM professionals in March 2010. Kloss led the Association's efforts to co-found the Certification Commission for Healthcare Information Technology, a private industry initiative to accelerate the adoption of interoperable healthcare technology, and serves on its Board of Trustees. Before joining AHIMA, she served as a senior manager for Massachusetts-based MediQual Systems, Inc.

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Gartner IDs Advanced Analytics as a Top 10 Strategic Technology for 2010

At its 2009 Gartner Symposium/ITxpo, Gartner identified the top 10 strategic technologies for 2010, for their potential impact on organizations in the next three years. Impact is gauged by the effect the technologies can have on the plans and strategies of the organization because of the technology's broad market use or the ability to gain an advantage from early adoption.

"Companies should factor the top 10 technologies into their strategic planning process by asking key questions and making deliberate decisions about them during the next two years," said David Cearley, vice president and distinguished analyst at Gartner. "However, this does not necessarily mean adoption and investment in all of the technologies. They should determine which technologies will help and transform their individual business initiatives."

Gartner named advanced analytics as one of the top technologies for 2010. It cites the ability to use analytics to support more informed operational business decisions. The tools can be used to analyze business processes and model the outcomes of alternative scenarios and methods. Assessments of changes can be made before, during and after a process change to assess its success or the need to make additional modifications.

The IT research and advisory organization says that analytics supports more informed decisions because the right information is available at the right time. Beyond just providing information, says Gartner, is its ability to provide simulation, prediction, optimization and other analysis for predicting what can or will happen.

Read the Gartner press release to see the entire list of the top 10 technologies for 2010.

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