

## Executive Brief



## Demonstrating Value through Information Strategy

As scrutiny of health care spending and quality intensifies, health systems increasingly must prove their ability to yield tangible improvements with cost-effective services. In the past, health systems were relatively insensitive to demonstrating value as such. Accordingly, very few organizations invested in creating the underlying information strategy required to support such a task.

As many health systems grapple with the complexity of this new market requirement, they are faced with a choice: accomplish the task through increased labor or through improved information technology. More labor can abstract medical information, massage and prepare data, and generate the large number of measurements needed to demonstrate value. Alternatively, information technology can be strategically designed to ease the onus of these activities, enabling health care leaders to focus on how best to act on the data, instead of how best to generate the data.

### Assessing Your Information Strategy

In demonstrating value, health care leaders face an increasingly complex and challenging set of questions, such as:

- > **Competitive Advantage.** Do our key services provide higher value than those of our competitors?  
Can we demonstrate better outcomes to support an improved contracting position?
- > **Profitability.** Which of our services are profitable? Are we achieving the best cost position?
- > **Outcomes.** Are our quality-of-care outcomes better than those of other health systems?  
What would it take to improve our outcomes?
- > **Cost-Efficiency.** Which care protocols are most cost-effective? How can we ensure providers are applying the care protocols that were developed?
- > **Contracts.** Should we sign this payor contract? Are we sure we can deliver quality care at this reimbursement level and still make a margin?

To address the underlying issues these questions raise, Kurt Salmon Associates recommends health system leaders first evaluate their level of information competency. The lowest competency level is Distributed, in which an organization has highly siloed information of poor quality, limited to no clinical data, and few policies governing the creation and use of corporate data assets. The second capability level, Coordinated, is marked by improvement in information sharing and analytics, with

a limited, compliance-focused (e.g., HIPAA) set of governance policies. Only at the third level, Integrated Continuum, do we find a common data infrastructure, a robust, personalized analytical toolkit and a governing body that is accountable for policies on information creation and access. We use four specific criteria to determine an organization’s information competency at each level: nature of data, level of analytical services, degree of information governance and analytical capabilities. (See Exhibit 1.)

A health system’s information capability level directly influences its operational reality as it seeks to answer the strategic questions and improve its value equation. What is your organization’s operational reality?

- > Does the cumulative labor cost to gather, manipulate and turn data into information exceed the value of the information itself?
- > Is more management time and effort expended in refuting and reconciling data than in trusting and applying it to decisions?
- > Are information and analytical insights delivered to the workforce at the point in time when it can affect changes in operations, or is information largely documentation of long-past events?

**EXHIBIT 1: Capabilities, Levels and Characteristics**

	CAPABILITY LEVEL 1: DISTRIBUTED	CAPABILITY LEVEL 2: COORDINATED	CAPABILITY LEVEL 3: INTEGRATED CONTINUUM
<b>Nature of Data</b>	<ul style="list-style-type: none"> <li>&gt; Highly siloed information resources</li> <li>&gt; Highly variable processes, results and output</li> <li>&gt; Same data, multiple systems</li> <li>&gt; Poor information quality</li> </ul>	<ul style="list-style-type: none"> <li>&gt; A few coordinated data resources, typically finance-centric</li> <li>&gt; Data elements are shared and audited between resources</li> <li>&gt; Consistent process to collect, manage and use data</li> </ul>	<ul style="list-style-type: none"> <li>&gt; A shared, integrated data foundation</li> <li>&gt; Facile information across the organization</li> <li>&gt; Flexible, consistent, widely applied resources</li> <li>&gt; Typically, a common data infrastructure</li> </ul>
<b>Analytical Services</b>	<ul style="list-style-type: none"> <li>&gt; Highly intermediated—few people can pull information</li> <li>&gt; Highly variable by function (e.g., finance decision support vs. no clinical decision support)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Strong capabilities within limited areas (e.g., finance-centric center of excellence)</li> <li>&gt; Some reporting self-service</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Enterprise-wide center of excellence</li> <li>&gt; Includes quality, research, finance, other areas</li> <li>&gt; High degree of self-service</li> </ul>
<b>Information Governance</b>	<ul style="list-style-type: none"> <li>&gt; No enterprise policies governing information creation, access, integrity, use</li> <li>&gt; Several department-specific policies, not coordinated</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Reactive, ad hoc, limited set of policies (e.g., HIPAA compliance policies)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; An information governing body sets policies</li> <li>&gt; Organizational change in information culture</li> </ul>
<b>Analytical Capabilities</b>	<ul style="list-style-type: none"> <li>&gt; Report-centric, typically very static and historical</li> <li>&gt; “Spreadmarts”—heavily reliant on Excel for corporate report generation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Emergence of decision-support systems</li> <li>&gt; Fewer spreadsheets, integrated with enterprise data sources</li> <li>&gt; Integrated dashboards</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Robust toolkit tailored to users</li> <li>&gt; Real-time, dynamic, actionable approaches to manage and plan</li> <li>&gt; Achieves goal of “right data, right time, right format, right administrator”</li> </ul>

### Advancing Your Information Capabilities

The burden of value reporting is likely to grow before it improves. The drivers behind transparency, the rollout of value-based reimbursement and clinical improvement initiatives continue to intensify. Once-voluntary programs and demonstration projects for measurement and reporting will become mandatory over the next several years with health care reform. In response, an organization can either continue to grow its labor to support an antiquated information environment, or it can improve its information capability as a competitive imperative.

#### Moving from Capability Level 1: Distributed to Capability Level 2: Coordinated

The key challenges in this transition are dependent on the starting position. For organizations at this level, the first goal is to create a solid foundation of information resources. The organization must capture consistent, timely and reliable data from across the facets of operations and organize it for analytical uses. The focus is to build capabilities in data capture, data validation and integration. Coordinating information management resources to both understand where data inputs are duplicated and to correct the information gathering efforts to ensure consistency is crucial to successfully grow beyond this level.

For organizations with a firm foundation in data resources, coordinating information management resources is typically a transformative process. It requires consolidation and coordination among the many information systems, departments and skilled resources. The effort requires linkages between traditional silos of data governance, data ownership and politics of such key stakeholder areas as finance, strategic planning, quality, clinical operations and research. Therefore, broad organizational support and governance are required to achieve success. This transformation is typically equal parts of changing how the organization thinks about information and its governance, and the development of the enterprise information management systems.

### IMPACT ON OPERATIONS

A team of researchers from the Center for Studying Health System Change and Mathematica Policy Research surveyed hospitals on the impact of value reporting on hospital operations. The assessment included data collection, review processes, feedback, quality improvement and resource allocation. Key study findings include the following:

- > **Organizations are participating in multiple external reporting programs: an average of 3.3 programs in addition to CMS and The Joint Commission.**
- > **Twenty percent of those surveyed stated that reporting programs interfered with one another due to differing criteria or data collection procedures.**
- > **Reporting programs are deemed poorly coordinated both externally and internally.**
- > **Staffing devoted to quality measurement and improvement have increased, but remain inadequate.**
- > **Inadequacy of current information technology solutions to support data abstraction and measurement calculations is driving the need for staffing.<sup>1</sup>**

Another analysis by Van Dusen, a quality measurement specialist at Premier, found that the time required to extract the 43 data elements necessary for a patient with acute myocardial infarction (AMI), a prevalent quality and value measure set, is 20 to 25 minutes per episode.<sup>2</sup>

<sup>1</sup> Hoangmai H. Pham, Jennifer Coughlan and Ann S. O'Malley, The Impact of Quality-Reporting Programs on Hospital Operations, *Health Affairs*, Volume 25, Number 5, September/October 2006, pp. 1412-1422

<sup>2</sup> Scalise, Dagmara, "Quality Paperwork Is Never Done," *Hospitals & Health Networks*, Storyboard, 81(1):26, 2007

## CASE STUDY

### Northeast Academic Medical Center

One Kurt Salmon client, a three-entity academic medical center, took the novel approach of converging two initiatives into a unified information management strategy and solution. The first initiative was the adoption of the Balanced Scorecard planning and performance management approach that demanded extensive measurement and analysis across their four pillars of value measurement: financial performance, quality and operations excellence, employer of choice and provider of choice. The second initiative was the desire to redesign and make more efficient the mandatory reporting processes for The Joint Commission (TJC) Core Measures as part of the quality agenda of the health system.

Since both initiatives required unifying and integrating vast amounts of disparate data from the three entities, an enterprise data warehouse was designed. A new business intelligence toolset provided both certified Balanced Scorecard functionality, but also many additional analytical capabilities including scorecards, reporting, advanced statistics and “drill-down” data navigation. To assist with the mandatory reporting driver, a new quality reporting solution was acquired to support all three entities. The convergence strategy was to efficiently feed the quality reporting solution with data from the enterprise data warehouse. This vastly increased the capabilities to generate large sample sizes as well as pre-populate a large percentage of the required quality measurement data elements. While this did not eliminate the need for medical abstractor review and effort, it dramatically reduced the time to abstract a discharge from an average of 30 minutes to 15 minutes. This, in turn, reduced the need to grow the medical abstractor workforce, allowed centralization of the professional staff across the three entities and increased the sample sizes able to be processed in a shorter window of time.

## Moving from Capability Level 2: Coordinated to Capability Level 3: Integrated Continuum

The most difficult level of information capability to achieve offers the most robust benefits to the organization and the community. This transformation focuses on developing common external reporting and data exchange capabilities built on the robust information capabilities within the organization. At this level, the organization typically has a strong reporting and exchange function that serves the needs of the organization and external partners. With this capability, the transformation energizes the leadership to take on more strategic planning and improvement agendas. Over time, the organization is able to connect and plan both internally within the health system and with partners in the community. With these capabilities, complex, multisite research, care protocols and utilization reviews may be conducted and the organization gains the reputation of being highly agile to adapt to market opportunities as they arise.

### Summary

The future transformations in the U.S. health care system will demand that providers demonstrate high-quality outcomes, cost-efficient care delivery and, ultimately, value for the investment. Leading organizations are rapidly developing advanced information capabilities that expand their ability to support payor contracting, plan operational improvements and monitor performance in a real-time environment. These organizations will be at the forefront of demonstrating their value to patients and payors and will ensure their successful future in the value-driven environment.

### Kurt Salmon Associates

Kurt Salmon Associates is the premier management consulting firm for today's leading hospitals and health systems. We work closely with our clients to create tailored solutions for their strategic and finance, facility development and performance, operational and information technology needs.

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