Managing Costs and Maximizing Value

Strategies from a CIO Summit

Prepared for the Scottsdale Institute

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Executive Summary: CIOs of seven leading healthcare organizations convened in late 2013 for an **IT Cost Management and Value Realization Summit**. In the session, the group shared strategies, tactics and insights for managing IT costs, fostering innovation and capturing and demonstrating the value IT brings to their constituents. This report highlights the key themes and specific strategies employed by the organizations represented in the summit and is intended to help other providers plan for success in an increasingly cost and value conscious market.





SUMMIT PARTICIPANTS

- Jay Anderson Northwestern Memorial Hospital
- Mark Barner Ascension
- John McLendon Adventist Health System
- Patrick O'Hare Spectrum Health
- Bruce Smith Advocate HealthCare
- Alan Soderblom Adventist Health
- Mark Zirkelbach Loma Linda University Health

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BACKGROUND

Within a few years, healthcare delivery and provider organizations will differ greatly from today. The slow progression toward system-ness will be usurped by the great potential of the rise of the "healthcare super-systems." These organizations will, over time, leverage standard clinical and operational processes and systems to gain efficiency.

We see this change already, as the 10 largest hospital systems in the U.S. represent about 15 percent of licensed beds. Today's nascent and often siloed efforts in clinical and business

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intelligence will be eclipsed by enterprise analytics with clinical, operational and financial data aggregated, analyzed and used for decision making at all levels of the organization. Patients will be—by virtue of increasing financial responsibilities, cultural shifts and advancing technology—active participants in managing their healthcare and healthcare information.

As if it were not enough for CIOs to help lead their organizations through this transformation, virtually all CIOs are facing significant budget constraints in the next few years. Despite estimates of healthcare IT spending topping \$34.5 billion in 2014, some industry leaders sense the days of frenetic spending are waning as large-scale

EHR implementations wind down, MU-driven investments are completed and preparations for ICD-10 taper. As a result, continued investments in EHR optimization/upgrades, revenue cycle systems, analytics and population health, other innovative technologies building off the established foundation, and increasing pressure to demonstrate the value of IT are expected.

This backdrop was the impetus for CIOs of seven leading healthcare provider organizations to convene in late 2013 for an **IT Cost Management and Value Realization Summit**, organized and facilitated by the Scottsdale Institute and Impact Advisors. The CIOs spent a day sharing insights regarding their strategic and tactical endeavors to manage IT costs, foster innovation and capture and demonstrate the value IT brings to their constituents.

Together, the CIO group represents \$35 billion in annual net-patient revenue, 225 hospitals, 2,200+ care sites and nearly 5,500 employed physicians in more than 40 states. Although their collective size is remarkable, they, like their peers across the country, are wrestling with seemingly irreconcilable mandates: provide more, higher value IT solutions and services and, over the next few years, contribute to reducing healthcare delivery costs, including IT costs.

The following report highlights the key opportunities for cost management and value realization that emerged from the summit, along with specific experiences and insights from the participating CIOs.





COST MANAGEMENT: HERE COMES THE RAIN

Virtually all the summit CIOs noted multi-year enterprise cost-reduction initiatives are in play for their organizations. Some sites are seeking cost reductions upwards of 25%. The seven entities' total target cost reductions is more than \$7 billion. Given the summit CIOs represent organizations often considered industry bellwethers, the magnitude of these reductions should be a warning call to other organizations and CIOs.

When it comes to IT cost management, four key opportunity areas are being targeted. Each area and the strategies and tactics being employed by the CIOs are reviewed below.

Cost Management Strategy #1: Standardize and Consolidate

Reducing and simplifying products, vendor systems and infrastructure is a pervasive opportunity—if not mandate—for the CIOs at the summit. They reported consolidation and tighter management of everything from data centers to end-user devices to interface engines.

Mark Barner noted Ascension is actively addressing a broad range of consolidation opportunities, including shrinking today's 4,000+ software applications to a much smaller number of enterprise standards and consolidating 37 disparate interface engines into one. Likewise, Adventist Health is



"Adventist is anticipating economies of scale and improved service delivery from the [consolidation] initiative," stated Soderblom.

consolidating its IS staff into a central service center, and Alan Soderblom anticipates economies of scale and improved service delivery from the initiative.

While the CIOs universally recognized the need for technology consolidation and rationalization, they also noted several challenges to achieving it. Enduser pushback—the NIMBY (not in my backyard!) syndrome—can be a major

obstacle in achieving savings and efficiency standards. Executive support is essential to help counter this resistance. Barner credits Ascension Health CEO Robert Henkel, who has clearly communicated that enterprise standardization is a priority across the health system. The other CIOs agreed, shared commitment to and ownership of cost reduction efforts across the executive suite is necessary to achieve the savings envisioned.

IT standardization initiatives can also be fostered through a sense of camaraderie in large/multi-state IDNs. McLendon said he and the other Adventist CIOs interact "like a fraternity" and generally follow each other's lead.

Mergers and acquisitions (M&As) also confound the consolidation and rationalization equation. These efforts often bring long-term economies of scale, but as Barner noted, post-acquisition spending bubbles often impact the IS department's operational costs. Often, until the newly acquired site is fully assimilated, a set of dual systems must be maintained. In addition, there are the infrastructure, data migration, end-user devices and/or training costs associated with moving





these sites to the enterprise standards. Spectrum Health, Advocate, Ascension and others have developed "M&A Playbooks" to set and manage expectations and efficiently convert to new systems.



"Loma Linda is taking a cost-sharing approach... distributing IT investment among a broader user base," said Zirkelbach.

Mark Zirkelbach reported Loma Linda is taking a cost-sharing approach by working with other aligned care delivery organizations in the community to more fully leverage IT investments and distribute their associated expense among a broader user base.

When open-source platforms were discussed as a cost-savings strategy, most of the CIOs were "pragmatically enthusiastic" about moving in this direction. They recognized the opportunities, (but also the enterprise

resistance) lack of product maturity, or required sinking costs into incumbent solutions that must be addressed in making the change.

Across the seven organizations, there are moves toward open-source technologies as a cost-management strategy. Ascension is mandating that ambulatory physician practice management systems become cloud-based and encouraging the migration of ambulatory EHRs to the athenahealth platform. While the EHR migration is optional, Barner noted that most Health Ministries within Ascension are making the change. This furthers enterprise standardization and achieves greater economies of scale.

Similarly, John McLendon said Adventist is evaluating moving from MS Office to the cloud-based MS Office 365, which would create an estimated savings of \$1.6 million over three years.

Cost Management Strategy #2: Manage Vendors & Leverage Partnerships

With annual revenue of \$23 billion, 131 hospitals, nearly 1,500 sites of care and "growing every week," Ascension gets vendors' attention. And, with an enterprise commitment to cutting \$5.2 billion from operations by 2020, including \$393 million from IT, vendor management will become increasingly important. IT leadership, although deeply involved in cost-reduction endeavors, does not always lead the discussions with vendors. Instead, Ascension is working with its subsidiary, The Resource Group, to renegotiate existing contracts. The Resource Group has helped Ascension identify savings in many IT areas and has renegotiated participation in Ascension's Group Purchasing Organization, which involves an administrative fee from vendors. Barner commented, "And I thought I was a good negotiator."



"Spectrum has increased legal and procurement resources in IS and is focusing on opportunities to manage costs through stronger vendor negotiations and contracting," reported O'Hare.

Other health systems are bolstering their vendor negotiating capabilities. Patrick O'Hare reported Spectrum Health has increased legal and procurement resources in IS and is focusing on opportunities to manage costs through stronger vendor negotiations and contracting.





Outsourcing was another oft-cited cost-management strategy. Adventist Health System has outsourced EHR support to the vendor, Cerner. In California, Adventist Health has outsourced not only support of its revenue cycle systems, but the revenue cycle management services to the vendor—putting the vendor at risk for performance metrics.

Other organizations have or are exploring outsourcing opportunities. Spectrum Health is in outsourcing negotiations with a key vendor. O'Hare noted that this will not only help reduce operating costs, it will liberate his staff to focus on strategic projects and complete them faster.

Use of consultants remains essential in navigating today's market and preparing for the future. CIOs are identifying strategic and long-term consulting partners. Some are creating internal consulting groups to provide in-house project and program management capabilities.

Cost Management Strategy #3: Restructure, Retain and Develop Staff

Across the board, CIOs recognized IS staff as the most important—and often most expensive—budget component. For example, staffing constitutes 51 percent of the IS budget for Adventist Health. Jay Anderson from Northwestern Memorial noted investment in "operational" staff to run the EHR infrastructure is substantial but critical, and, unlike implementation staff, these resources have a continual operational financial impact.

None of the summit CIOs noted staffing reductions as a major cost-cutting strategy. Rather, key tactics in this area include:

- Restructuring IS organizational models, including integrating bioinformatics/clinical engineering and/or HIM into the IS structure
- · Retaining current skilled staff
- Enhancing staff skills and training to enable greater cross coverage using mLearning and 24x7 access to training

Cost Management Strategy #4: Improve Service and Process

Managing demand for and delivery of IS services provides opportunities for efficiency. Anderson said Northwestern Memorial's IT department allots a "bucket of hours" to each key operational area, which must then decide how to internally prioritize and use those hours. This approach has helped manage demand for IT while giving end-users an increased role in IS decision making. Another benefit: the IS resource time previously used in making those decisions is saved.



"Ascension is bolstering its project and program management by moving to an enterprise PMO and placing project managers in functional areas," said Barner.

Soderblom noted the importance of a strong project management office (PMO) in standardizing processes and driving efficiency. His organization, Adventist Health California, has realized a solid return on its PMO and is significantly increasing PMO investment. Likewise, Ascension is bolstering its project and program management by moving to an enterprise PMO (ePMO) and placing project managers in functional areas instead of on individual projects.





Another strategy noted by many of the CIOs was the consolidation of IT committees. In many cases, this consolidation enables IT departments and health systems to move more quickly and efficiently on IT issues and decisions. It can also put more responsibility on the business owners to govern themselves more effectively.

In another process change, several CIOs, including Bruce Smith from Advocate, are seeking to shift vendor selection ownership to the C-suite. This approach often helps support corporate standardization and potentially removes the political pressure of vendor selection from the IS department.

For the summit CIOs, benchmarking is viewed as an important tool for measuring and enhancing performance. Mark Zirkelbach noted Loma Linda is adopting and executing a continuous service improvement strategy through ongoing benchmarking and process evolution. However, identifying the right metrics can be challenging. IT cost metrics seen as being high value include:

- IT operational expense as a percent of revenue
- IT operational expense as a percent of overall operating expense
- IT operational expense per adjusted patient day

Recognizing the shift to the increasing delivery of care in outpatient settings, and the growing importance of managing care and costs across the continuum, the group discussed the need for metrics that measure IT performance across a broader delivery spectrum.



"Advocate's CFO tracks a 'Gang of 19' peer healthcare delivery systems on comparative, publically available financial measures. We [CIOs] need our own 'Gang,'" stated Smith.

In addition, finding the right comparative cohort can be challenging. Impressed with his CFO's tracking a "Gang of 19" peer healthcare delivery systems on comparative, publically available financial measures, Smith suggested the summit CIOs establish their own "Gang" to make quartile-based comparisons for IT.

Presently, the summit CIOs participate in the *Scottsdale Institute's IT Benchmarking Program* and in sub-groups (one consisting of academic medical centers and the other of large health systems) within it. The SI IT Benchmarking Program uses an automated normalization tool that helps CIOs make apples-to-apples comparisons of IT expenses and provides a good starting platform for delving into cost management opportunities. For more information, see www.scottsdaleinstitute.org/itbm





VALUE REALIZATION: HERE COMES THE SUN

The locus of IT value is defined in non-IT terms.

As challenging as managing and reducing costs are for most CIOs, defining, measuring and articulating IT value can be more challenging, largely because it's difficult to isolate IT from the complex interplay of people, processes and continually advancing knowledge. Simply put, it's hard to discern and measure the individual contributions to the aggregate.

To jump-start the dialogue on IT value among the summit CIOs, the following questions were posed:

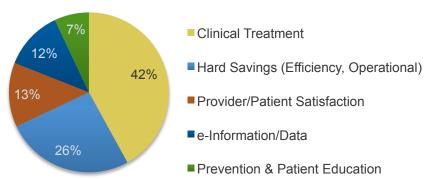
- How should we measure the value IT delivers?
- How do we effectively communicate it?
- Are we capitalizing on opportunities to sustain and increase IT value?
- Are these value opportunities aligned with business strategy or just "shiny objects?"
- Where is the juncture of cost management and IT value?

Value Strategy #1: Measure and Communicate IT Value

Not surprisingly, all summit CIOs agreed IT value should be measured *from the perspective of the end-user and the business goal*. The challenge is to ensure the business value is in fact measured and the IT contributions to it are articulated in terms that resonate with stakeholders.

There are emerging efforts to improve the measurement of IT value. For example, in mid-2013 HIMSS launched the IT Value Suite knowledge repository as a means to classify, quantify and articulate the clinical, financial and business impact of health IT investments. As of late December 2013, the repository contained 80 different value measures. The 1,000+ examples of value collected included the following:

HIMSS Value Suite Repository Measures



Based on these distributions, it's clear the locus of IT value is defined in non-IT terms. Thus, it is important for IS leadership to translate IT value into metrics that matter to end-users and

¹ http://www.himss.org/News/NewsDetail.aspx?ItemNumber=21536





stakeholders. In other words, it's not EHR uptime or the size of the EDW that's of value, it's the impact high availability systems and robust data have on patient and financial outcomes that resonate with stakeholders.

Advocate CIO Smith has experienced this first hand. When reporting to his board—which is keenly attentive to the CFO's financial-performance reports—he met a sea of glazed-over eyes when discussing topics like "system response time." Smith, like other summit participants, continues to develop an IT value vernacular that is more easily understood by board members and other stakeholders.

Zirkelbach from Loma Linda is using Business, Clinical, Community and Population KPI metrics to help measure and communicate the impact of technology investments. His organization is also working to represent IT expenses/allocations in internal financial reports based on actual resource utilization. This helps operational units appreciate the cost of systems in their areas, so they can evaluate the value they bring in supporting business and clinical activities and determine if the investment is warranted by the return.

Ascension plans to implement an enterprise "IT Balanced Scorecard." These scorecards, often used in other areas of business, provide a set of key metrics in terms and measures familiar to the executive suite. Per Barner, Ascension's scorecard will measure IS on four dimensions: IT value, customer/partner satisfaction, operational excellence and transformation/future orientation.

Value Strategy #2: Align Innovation with Business Strategies

While technological innovation abounds, the summit CIOs were careful to note they are focused on emerging technologies aligned with and supporting key business strategies, including organizational growth, expansion across the care continuum and efficiency. A few examples from the CIO group include:

 Spectrum Health is engaging in web and mobile apps development. It recently rolled out a caremanagement tool that has helped increase case manager productivity by 25 percent. O'Hare noted these types of initiatives bring multi-faceted value. They improve staff efficiency, enable care across the continuum and showcase internal IS talent and capability.

"e-Health and telemedicine services are providing a costeffective way to drive revenue and generate high patient satisfaction," said Anderson.

- Both Advocate and Northwestern Memorial are building out e-Health and telemedicine services. As Smith and Anderson noted, these programs are proving to be a cost-effective way to drive revenue and generate high patient satisfaction.
- Ascension is planning to create a scalable framework to support the next generation of
 mobility applications, both internally developed and vendor provided, with effective security
 and platform management. This work includes upgrading the enterprise social media
 infrastructure, including content and customer relationship-management tools, surveys and
 monitoring tools.
- Loma Linda is developing innovation capability by partnering with vendors to create products and services that bring immediate value. For example, they are working with the vendor Esri to incorporate GIS capabilities and spatially enabled analytics to improve population health,





particularly in risky environments. This supports a key organizational strategy, benefits patients and Esri develops greater expertise and qualifications in the healthcare market.

The CIOs are going one step further by engaging the business owners in championing and owning IS investments for the short and long term. Increasingly, they are including IT capital *and operating* cost into strategic projects. As such, the business owner is responsible for the long-term solution, creating a stronger relationship between the business area and IS, and promoting a shared focus on value. Zirkelbach noted, at Loma Linda, executive sponsors not only drive the business need and own technology/project alignment with business strategy, they are accountable for ensuring endusers are fully trained on automated business processes.

Over the past two years, Ascension has tackled a portfolio of 35 IS cost savings and efficiency projects, including those noted above. The organization has now centralized ongoing IS improvement initiatives in its Value Creation Office (VCO) program to drive and measure value realization across Ascension. While additional operational efficiencies are planned, the VCO will identify and deliver projects and solutions to optimize IT, while ensuring alignment with business priorities.

Value Strategy #3: Evolve IS Skill Sets and Roles

"I'm looking to hire data architects, analysts and project managers," stated O'Hare. CIOs walk a fine line in managing their largest budget line item—staff salaries and benefits—while keeping highly skilled, marketable and mobile staff satisfied and operating at their peak performance level. Turnover of IS staff for the CIO panel ranges between 5 and 8 percent annually, which the group considers healthy.

In addition to retaining and sustaining today's talent, CIOs face a new staffing challenge—the increasing need for a new breed of IT specialists. O'Hare says Spectrum Health is seeking data architects and analysts as well as project managers; the other CIOs noted having the same resource needs. This sentiment is ubiquitous across the industry. At a recent Scottsdale Institute conference, Arthur Kellermann, MD, Dean of the Medical School at Uniformed Services University, predicted the key to the emerging revolution in the healthcare landscape is people with skill sets that equip them to extract value-added information from IT systems and help business owners improve processes with it.

While staff co-location and consolidation can bring efficiencies, these changes can also heighten the effectiveness—i.e., the value—derived from the staff/their work. According to Soderblom, as Adventist Health consolidates its IS department into a service center, they are focusing on employee satisfaction and career development.



"Adventist is outsourcing software-applications support to its EHR vendor... It's cost-effective, high quality outsourcing, and my staff gets to do the fun stuff," said McLendon.

Northwestern Memorial has begun to centralize analytics resources under IT to become more efficient and improve knowledge sharing across the organization, an indication of the high skill sets and increased value the IT team brings to the organization.

Across the country at Adventist Health System in Florida, John





McLendon said his organization is outsourcing software-applications support to its EHR vendor; a move that allows internal IS staff to focus on strategic projects and new initiatives. "It's a win-win," he continued, "It's cost-effective, high quality outsourcing, and my staff gets to do the fun stuff."

Many of the CIOs include biomedical / clinical engineers in their IT budget. Spectrum Health has converged some clinical engineer and traditional IT desktop support roles and cross-trained these staff to provide a more holistic approach to supporting client-facing technology, which has increased their skill sets; the strategy has been positively received within the organization.

Loma Linda sees internal consulting capabilities within the IT service delivery model as essential to achieving the greatest value from its system investments. "The business of workflow automation cannot be easily achieved by an end-user submitting a service request to IT. A consultative approach with IT embedded in the operation working closely with business process owners is the model we are maturing," said Zirkelbach.

CONCLUSION

The CIO Summit provided an opportunity for participants to begin a dialogue about IT costs and value management. The participating CIOs employ a variety of strategies for reducing costs, including: the standardization and consolidation of products, systems and infrastructure; outsourcing vendor negotiation; restructuring departments; and enhancing skills and service/process improvement. The group also discussed the significance of communicating IT value in terms that matter to end-users and business stakeholders, while aligning innovation efforts with business strategies and focusing on IS workforce development and retention.

Regardless of their individual strategies and tactics, the CIOs agreed knowledge-sharing sessions like this one are becoming increasingly important as they face the challenges of the shifting landscape of healthcare.





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