Optimizing Healthcare IT

Challenges and Strategies for Success

Prepared for the Scottsdale Institute
By Tonya Edwards, MD, Impact Advisors

Executive Summary: CIOs of thirteen leading healthcare organizations convened in April 2015 for the annual Scottsdale Institute Spring Conference's CIO Breakout session. This year's theme was **Healthcare IT Optimization**. This report highlights the challenges faced by CIOs related to optimization and suggests some strategies to maximize the potential for success of optimization projects.

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BREAKOUT PARTICIPANTS

> Mark Barner – Ascension; Advisor Panel, Scottsdale Institute

> Dave Bensema, MD – Baptist Health Kentucky; Advisor Panel, Scottsdale Institute

> John Delano – INTEGRIS Health; Advisor Panel, Scottsdale Institute

> Robert Eardley – Houston Methodist; Advisor Panel, Scottsdale Institute

> Jon Manis – Sutter Health; Advisor Panel, Scottsdale Institute

> Lee Marley – Presbyterian Healthcare Services

> Patrick O'Hare – Spectrum Health; Advisor Panel, Scottsdale Institute

> Marcus Shipley – Trinity Health; Advisor Panel, Scottsdale Institute

> Bruce Smith – Advocate Health Care; Board Member, Scottsdale Institute

> Alan Soderblom – Adventist Health; Advisor Panel, Scottsdale Institute

> Bill Spooner – Sharp (retired); Advisor Panel, Scottsdale Institute

> Richard Shirey – Hartford HealthCare

> Jim Veline – Avera Health; Advisor Panel, Scottsdale Institute

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Introduction

A sunny late afternoon in Scottsdale, Arizona was the setting for a gathering of 13 CIOs from some of our nation's largest and most prestigious health care organizations. The topic: Healthcare IT Optimization. As it turns out the topic did not garner much enthusiasm amongst our participants. Instead the mood was somber. Over the 90 minute session the daunting reasons for the mood became clear. The organizational drivers for optimization at healthcare organizations are huge— eliminate waste, improve efficiency, improve user and customer satisfaction and improve the operational bottom line. But "optimization" is fraught with misunderstanding, equivocal ownership, poorly defined goals and shotgun style prioritization.

Worse yet, all of our CIOs noted that they are currently in the midst of a major software implementation affecting large portions of their organizations and most cannot foresee a time when that will not be the case. With that in mind, there will likely never be a time when CIOs can focus the majority of their attentions on optimizing existing software implementations in a stable environment. Instead they must do it in the milieu of constant change of the healthcare environment, perpetual implementations and upgrades and stakeholder prioritization bias.

> "Optimization is a continuous process and never ends, meanwhile implementations and upgrades will also be a constant."
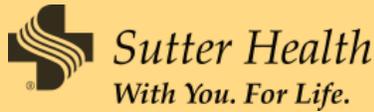>
> **Bill Spooner**, CIO
> Sharp (retired)

Definition

In an effort to try to better understand the challenges our CIOs face related to optimization we first asked them to reflect on Merriam Webster's definition of optimization: *An act, process, or methodology of making something (as a design, system, or decision) as fully perfect, functional, or effective as possible...* and how it relates to IT optimization at their organizations. Words used to describe optimization included "necessary, interesting and holy grail". The CIOs postulated that optimization at their organizations should include cost reduction efforts, enhanced adoption of existing software implementations, standardization and reduction of unnecessary variability both within IT as well as within operational processes, improvement of end user experience and improved efficiency. The hottest optimization requests are for dashboards and reports. Large organizations are also focusing on making the patient experience consistent from facility to facility.

They also noted that "optimization" can have widely variable meanings. In fact nearly universally these CIOs try to avoid the word optimization because it is so misunderstood at their organizations. Jon Manis from Sutter Health stated that to many organizations the term "optimization" is often a euphemism for system "modification".

"We must resist the pressure to modify standard systems before we thoroughly evaluate and understand the reason for the modification request. Is the real issue training? Is there resistance to change? Is there an emotional or cultural component to the system modification request? Do we need to modify a workflow? Is the system configured appropriately and performing properly? Or is the new system and workflow change simply unfamiliar and uncomfortable? Requiring modification to a standard system should be considered rare, and only as a final option after we understand why the standard system can't support an optimized workflow."

Jon Manis, CIO, Sutter Health

Robert Eardley, whose Houston Methodist team is currently implementing Epic, says his leadership team is specifically avoiding the term optimization as it relates to the typical Epic implementation because "to our team optimization can mean we didn't get it right the first time". But Richard Shirey challenged: "How can they optimize something they haven't seen" reflecting the inherent need for fine tuning after implementation once users have an opportunity to actually use the product within their normal workflows.

One thing is sure at the organizations represented by these CIOs, optimization as Webster defines it is something that is going on before, during and after software implementation, whether they call it optimization or not.

Robert Eardley, CIO, Houston Methodist

Richard Shirey, CIO, Hartford HealthCare

Challenges

The challenges optimization presents for CIOs are many. Perhaps one of the biggest challenges is that optimization projects that fall within the auspices of IT because they are related to software often have little to do with IT but instead are primarily operational. Patrick O'Hare from Spectrum Health says about common optimization projects "there may be 15 things that need to change in the processes to optimize them, but maybe only 2 are IT. "We're optimizing the care process using a performance improvement team of which IT is only a part." Lee Marley from Presbyterian Healthcare Services agrees.

SPECTRUM HEALTH

Patrick O'Hare, CIO, Spectrum Health

PRESBYTERIAN

"We must recognize organizationally that this is not about IT. We are a supporting cast member."

Lee Marley, CIO
Presbyterian Healthcare Services

All CIOs agreed that the technology piece of optimization is just a small piece. But while many CIOs think that optimization is 10% technology and 90% operations, operations may see it as 10% operations and 90% IT. Part of this problem arises because most healthcare organizations don't have a clear, organizational specific definition of what "optimization" means and senior leadership is not on the same page about an optimization strategy. Some of the organizations represented have multidisciplinary performance improvement teams while others do not. Regardless, too many organizations are looking for IT to drive the optimizations. The CIOs in this summit believe most optimization is related to people and process.

TRINITY HEALTH Livonia, Michigan

As Marcus Shipley put it, "technology is a reflection of the business".
It is there for support and can be enhanced once operations advises what they want.
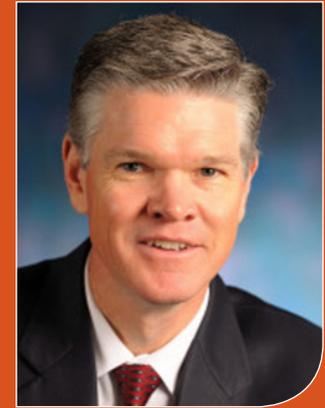
Marcus Shipley, CIO, Trinity Health

The group generally agreed that revenue cycle and human resource optimization projects are generally much easier to accomplish because there is far greater ability to standardize and greater acceptance of standardization. The inherent necessary variability in clinical processes, coupled with the technically unnecessary but culturally protected variability in clinical workflows from site to site and between providers makes clinical optimization much more difficult.

Another challenge is deciding what to optimize. Prioritization methods for selecting potential optimization projects vary quite a bit among our participants. A few have senior leaders setting strategic direction and participating on multidisciplinary teams to prioritize optimization opportunities. Others are simply working from an enhancement list and IT is making the decisions, despite best efforts to include operations.

In the eyes of these CIOs the quest for "perfect" is simply unachievable in

BAPTIST HEALTH

As Dr. Bensema puts it, "in no other industry is 10% variation normal and expected". In either case, however, the CIOs could not over emphasize how important a top down mandate is for achieving standardization.

Dave Bensema, MD, CIO,
Baptist Health Kentucky

the constantly changing environment we are facing in healthcare. With the rapid fire changes occurring, roll out of optimized builds to the organizations many facilities can't take years; it has to happen quickly. Yet, most organizations don't have systems or processes in place or a plan for rapidly deploying enhancements, particularly when the bulk of the enhancements are related to workflow changes. Larger organizations are particularly challenged by rolling out optimizations to multiple sites, often in broad geographic distributions, in a timely way. The industry in general needs to develop better ways to do this.

The Way Forward

In spite of the many challenges inherent to "optimization" within a healthcare IT environment, there are a few takeaways for CIOs looking to achieve success.

1. **WORK WITH THE SENIOR LEADERSHIP TEAM TO CREATE AN ORGANIZATION-SPECIFIC DEFINITION OF OPTIMIZATION.** When it comes to healthcare IT optimization, perhaps no one act is as important as getting the entire leadership team on the same page when it comes to optimization. While completing this first step is not a guarantee of success, leaving it undone will almost certainly lead to failure.

2. **PRIORITIZE OPTIMIZATION PROCESSES BASED ON THE VISION AND STRATEGIC PRIORITIES OF THE ORGANIZATION.** When optimization projects are aligned with the organization's strategic priorities, a dual benefit is achieved. The optimization project has more support and energy behind it to achieve success and the organization is driven forward toward its strategic goals by the outcomes of the optimization project.

3. **DEVELOP METHODS TO QUICKLY DIFFERENTIATE NEED FOR INCREASED ADOPTION OF CURRENT BUILD WITH TRAINING AND SUPPORT FROM TRUE NEEDS FOR OPTIMIZATION OF WORKFLOWS OR IT BUILD.** According to Richard Shirey that may mean "we need to do a better job of helping them understand what they need vs. what they want". Once you identify a training need or support need, move quickly to fill the need and continuously work toward increased adoption. Strive to only have items on your enhancement request list that require build.

4. **CREATE MULTIDISCIPLINARY TEAMS INCLUDING MEMBERSHIP FROM OPERATIONS, IT AND PERFORMANCE IMPROVEMENT TEAMS TO MAXIMIZE OPTIMIZATION EFFORTS.** Multi-disciplinary performance improvement teams can assess current workflows, do root cause analysis, create future state workflows and assess what new or enhanced IT build is necessary. Once IT completes the enhanced build to support new workflows, operations and IT should work hand in hand to integrate the new build and workflows into the production environment. or instance, the Sutter Improvement System, says Jon Manis, reports through IS. The reason is that you can't do the big projects without IT, even if we're only 15% of the project.

Advocate Health Care
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Bruce Smith from Advocate states that "systems are not being used to their full extent to bring value. End users want ease of use, management wants efficiency, but on either side adoption is not where it should be. The bottom line is that adoption drives value."
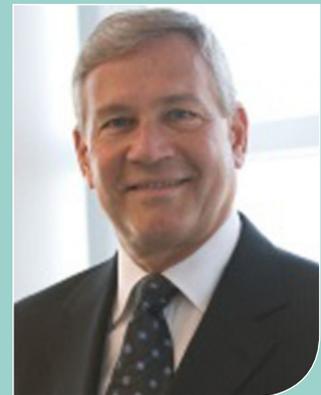
Bruce Smith, CIO, Advocate Health Care

5. **DEVELOP EFFECTIVE MEANS TO ROLL OUT OPTIMIZATIONS RAPIDLY.** This is yet another area that will require a close working relationship between operations and IT. The need to roll out changes quickly is another impetus to standardize processes and build, but getting there will take patience and persistence.

6. **STAY ATTUNED TO CHANGES IN THE HEALTH CARE ENVIRONMENT AND DEVELOP THE ABILITY TO BE AGILE AND FLEXIBLE.** We are likely to see unprecedented levels of change over the next few years. CIOs will need to keep abreast of changes and prepare their teams to be able to turn on a dime.

7. **DEVELOP KEY PERFORMANCE INDICATORS TO MEASURE THE SUCCESS OF YOUR OPTIMIZATION EFFORTS.** Particularly related to EHRs, healthcare is just starting down the road to optimization. It will be critical to measure outcomes to assess the success of optimization projects and to apply performance improvement techniques to continuously improve.

ASCENSION

"At Ascension" says CIO Mark Barner, "until last year we monitored 277 metrics that weren't particularly relevant to running our business. We now have 16."

Mark Barner, CIO, Ascension

Conclusion

Optimized IT should minimize the intrusion and impedance of the system to patient care workflows says Dr. David Bensema. Robert Eardley agrees; "IT is a platform for operations. We enable the workflow. There are few processes left that aren't electronic. Supporting the work is our real business. Technology hardware is only 25% of what we do."

But to achieve truly optimized systems healthcare organizations will need to move out of traditional silos and work in multidisciplinary teams to achieve workflows and processes that are streamlined and supported by IT systems that mirror workflows, automate where possible and enhance patient care by presenting information in ways that can quickly be converted to right action by end users. While the future of healthcare in the US remains unknown, organizations that can embrace this change and remain flexible and agile in an ever changing healthcare environment will be poised for success.

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