

# CHIEF INFORMATION OFFICER SUMMIT

October 14, 2016

## Achieving Value-Based Payment Success: Implications for IT and the CIO



**Prepared for the Scottsdale Institute**

*By Tonya Edwards, MD, Impact Advisors*

**Executive Summary:** Nine CIO thought leaders from leading healthcare organizations across the country convened on October 14, 2016 for the annual Scottsdale Institute Fall CIO Summit. What resulted was a lively discussion about the challenges today's healthcare CIOs are facing as the scales tip ever closer to value-based payment as well as a display of steadfast resolve to meet those challenges head on with innovative strategies and cutting-edge tactics. This report highlights the key focus areas of the discussion, and suggests some key strategies for success.



## CIO SUMMIT PARTICIPANTS

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- > Kyle Johnson – Eastern Maine Healthcare Systems
- > Ken Lawonn – Sharp HealthCare
- > Paul Merrywell – Mountain States Health Alliance
- > Patrick O’Hare – Spectrum Health
- > Bill Russell – Former CIO, Saint Joseph Health
- > Pat Skarulis – Memorial Sloan Kettering Cancer Center
- > Bruce Smith – Advocate Health Care
- > Brent Snyder – Adventist Health System
- > Jim Veline – Avera

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# Introduction

National health expenditures reached \$3 trillion in 2014, the last year for which we have data from CMS. This accounts for about 17.5 percent of the U.S. gross domestic product. Between 2013 and 2014 the total national health expenditures increased by more than 5 percent. During that same time frame the average cost per day for hospitalization was \$2,346 at a nonprofit organization and \$1,798 at a for-profit institution. With ever increasing pressure from the rising cost of healthcare, our federal government, especially CMS, is leading the way to try to reduce healthcare spending. Voluntary alternative payment models such as ACOs, voluntary bundling programs, pay for performance and other programs have been taking shape over the past few years. But with last year's passage of the MACRA legislation, the stakes have been raised.

Value-based payment programs are seeing a shift from voluntary to mandatory. For instance the Merit-based Incentive Payment System (MIPS), part of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which consolidates Meaningful Use, PQRS and the Value-Based Modifier under one umbrella for ambulatory clinicians, becomes mandatory in 2019. MIPS must be budget neutral, so there will be winners and losers in this new program. While annual incentives or penalties begin in 2019, they are based on performance two years earlier. Tactically what that means is that organizations need to be able to report their performance for 2017. Incentives for high scores must be offset by penalties to clinicians with lower scores. There is a nine percent potential upside (incentive), but also a potential nine percent downside (penalty), based on performance. Additionally for exceptional performers there is the opportunity to earn additional bonuses.

On the hospital side, we are seeing a shift to mandatory hospital bundled payment programs. The first mandatory program, in place in 67 markets, requires hospitals to participate in a bundled payment program for hip and knee replacement surgeries. Hospitals that perform the surgery are accountable for spending associated with the ensuing "episode of care." The next mandatory bundled payment for hospitals will be for bypass surgery and acute myocardial infarctions (heart attacks), and is proposed to begin in 98 markets in the near term.

For a decade or more health systems have been preparing for this shift, some more vigorously than others, but now that it is a reality health systems are forced to rapidly lay the groundwork for success. This new era is being marked by significant investments to optimize existing EHR functionality as well as increasing focus on exchange of data, patient engagement and analytics capabilities in order to effectively take on financial risk and manage care of a patient population.

In light of these new payment models finally becoming a reality, we asked CIO thought leaders to come together for a day to discuss their challenges and strategies for success in this new paradigm. What they had to say was both predictable and surprising.

## What's Keeping You Up at Night?

To lay the groundwork for the day, we started by asking this question: What's keeping you (or your CEO) up at night? The CIOs had a number of predictable responses, with areas of high concern including narrowing networks, bundled payments, security, facilities planning, physician alignment, and development of enterprise strategies. Sharp HealthCare's Ken Lawonn notes, "We have a lot of focused siloes. It's hard to get them to look to a higher level to develop strategies around population health."

Consolidation was a hot topic, as half of the attending CIOs are in the middle of merger-and-acquisition activity. There were 935 deals last year in virtually every healthcare sector, with the highest numbers in hospital and long-term care. ("[Health Care M&A Volume and Value Exploded in 2015](#)," Irving Levin Associates, January 2016) A growing number of physicians are consolidating into larger practices owned by hospitals or healthcare systems. Roughly 35 percent of physicians are now employed by hospitals or health systems. ("[Physician Practice Acquisition Study: National and Regional Employment Changes](#)" Avalere Health and the Physicians Advocacy Institute, September 2016)

Another somewhat surprising topic was the area of succession planning. Many of the organizations represented are facing near-term retirements of CEOs and other high-level executives. Kyle Johnson from Eastern Maine Healthcare Systems notes that there have been a lot of changes in the senior leadership team. While the health system has been transitioning from the old guard to the new guard they are working hard to become a true system.

Demand management for the Electronic Health Record (EHR) and all other tools is also top of mind as is management of insurance products, as this area expands to be an ever increasing portion of the business.



"We have a lot of focused siloes. It's hard to get them to look to a higher level to develop strategies around population health."

**Ken Lawonn**, CIO,  
Sharp HealthCare

## Tools for Value Based Care

Next we turned our attention to tools for value-based care. Analytics, reducing variation, care management and transitions of care, cost control and patient engagement are critical components of any value-based care program. First up was analytics.

### **ANALYTICS**

Spending estimates for the 2016 global healthcare analytics market ranges from \$4 billion to \$5 billion dollars, with the U.S. accounting for about half of the global spend. The projected

annual growth rate for the healthcare analytics market is 8 percent to 11 percent between now and 2020. Nearly universally the top priorities for analytics investments over the next two years are for advanced analytic capabilities for care management and population health, yet fewer than half of U.S. healthcare systems have a clear analytics strategy and an even smaller number have any advanced analytics capabilities such as predictive analytics.

We asked, “How is your health system utilizing analytics to change provider, staff and patient behavior”? Right away we ran into challenges.

All of the health systems represented are among the leaders in healthcare analytics development. Ken Lawonn notes that Sharp has had a data warehouse for a long time. They also use the Advisory Board’s Crimson tool. Using these tools they have started to look at provider performance. The Crimson tool was implemented on the inpatient side but they found that physicians often didn’t bother to look at their performance. Adoption is a little better on the ambulatory side as the internal data warehouse is being used to identify gaps in care, but because it is not integrated into the provider workflow there is still limited adoption.

Jim Veline, Avera, agrees. “We had a third-party vendor analytics tool and had the same experience. We spent a lot of money and effort to get it rolled out and nobody used it. If operations doesn’t own it they won’t buy in and use it. We have now created our own scorecards based on what analytics the operations team wants to see with a home grown solution.” He goes on to say, “There is a sexiness about predictive analytics right now. But at the provider level there is less pragmatic value.” Avera is focusing primarily on development of registries. Bruce Smith, Advocate Health Care, agrees. “We had a similar experience. It goes back to the user. We are still in an era of doing things

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Jim Veline, CIO, Avera



Brent Snyder, Adventist Health System, notes that his organization is working hard to provide user-friendly tools so users have access to data that is relevant for them.

Brent Snyder, CIO, Adventist Health System

to physicians. From a physician’s perspective what you are giving me is going to slow me down and you are not giving me what I do want. We deploy more and more technology and doctors are less and less happy.” Brent Snyder, Adventist Health System, notes that his organization is working hard to provide user-friendly tools so users have access to data that is relevant for them.

At Spectrum Health, notes Patrick O’Hare, they are now transitioning compensation for employed providers to focus on value. He notes it will be interesting to see if this change in compensation plans will change physician behavior to be more focused on trying to fill gaps in care.

As for what the role of IT is related to analytics, answers were mixed. Pat Skarulis at Memorial Sloan Kettering Cancer Center notes, “It’s important to have users be owners.

We have a very well developed warehouse that we have been building for 30 years. We have had a big payoff from having 140 SuperUsers, mostly on the operational side, using them for analytics. We have data scientists as part of the centralized group but finance and strategy and innovation also have brilliant analytics people.” Kyle Johnson also notes that Eastern Maine has a hybrid model. “Some of the roles live in IT as shared services and some are distributed in operational areas but use common tools.” She goes on to say, “In the ideal world we would have folks both in operations and IT understand the source of data, but in reality folks in operations may not have deep technical expertise. So both groups need to work together.”

Ken Lawonn notes that Sharp also has a hybrid model. There are members of the analytics team in Quality, Health Plan, Medical Groups, Finance and other areas reporting operationally, but infrastructure, data governance and master data management functions report to him. At Spectrum, analytics is a collection of resources that lives in IT, operations and the health plan, says Patrick O’Hare. Half of analytics is reporting through him but the other half is now moving to reporting more to operations including the Chief Actuarial Officer and Chief Medical Officer.

Questions remain about where certain functions belong. For instance, Jim Veline asks, “Who should own and how do we structure the audit function of analytics? If the numbers weren’t right there may be a mapping error because of definition. Root cause analysis needs an audit function. Who should own that?” Pat Skarulis notes that her Extract/Transform/Load (ETL) group and the Data Reporting group each have an internal auditing function. “Processes and reports need to be quality audited by another person within the same group.”



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Pat Skarulis, CIO,  
Memorial Sloan Kettering  
Cancer Center

## SPECTRUM HEALTH



Patrick O’Hare, CIO,  
Spectrum Health

“At Spectrum we do not use the word data warehouse anymore. We have to shift the mindset.”

Big Data is a trend, not just a buzz word. In healthcare we are going to require analytics for real time surveillance. If we continue to do this with an enterprise data warehouse mindset we will have to hire fifty more people. Instead we need to begin to use machine learning to look for patterns.” Pat Skarulis agrees. At Memorial Sloan Kettering they are setting up Hadoop environments as well as Splunk environments. “For instance,

As analytics needs and services mature in the healthcare sector, it seems clear that traditional models will continue to change.

Patrick O’Hare notes that “at Spectrum we do not use the word data warehouse anymore. We have to shift the mindset.” Bill Russell notes that “the enterprise data warehouse is how most other industries aggregated data 5 years ago.

in our same day surgery center the concept is that everyone is in and out in 24 hours. We bring real time location system (RTLS) data into the Hadoop environment so that users can see real time patient status.”

### CLINICAL VARIATION

Next we turned our focus to minimizing clinical variation. We asked, “How far along is your health system in reducing clinical variation and creating clinical standards and care pathways and how has IT been involved in doing that?”

Bruce Smith says that Advocate Physician Partners is working on clinical improvement programs. “We have 300 pay-for-performance metrics. At end of the year if physicians hit metric targets they get paid out.” Advocate has seen improvement in clinical process. “People who were unwilling to do things in a standard way previously are now willing to do it because we see results. We are bending physician behavior.” Jim Veline notes that Avera is developing service lines for care. IT is involved in developing documentation templates and order sets which is helping to move along reduction of clinical variation.

Their order sets are evidence-based, but he notes, “Sometimes there is justifiable variation in clinical care so we have to build that variation into order sets as well.”

At Mountain States Health Alliance, notes Paul Merrywell, it has been tough to get consensus around best practices for building order sets. His team is being frequently asked to modify order sets to accommodate doctors. “That has implications for data because it creates an outlier. We have no rules about number of exceptions either.” They are now measuring clinical effectiveness down to the physician to try to combat this.

“We did it on an ambulatory basis first then inpatient. But it took years to develop these order sets.”

**Pat Skarulis**, CIO, Memorial Sloan Kettering Cancer Center

Pat Skarulis notes that Memorial Sloan Kettering has standardized all order sets. Disease teams meet together to discuss and change order sets, then everyone is required to use them. Order sets are reviewed every six months. It took a long time to get to that point. “We did it on an ambulatory basis first then inpatient. But it took years to develop these order sets.” They also have the advantage of having a fully employed medical staff.

Challenges related to reduction of clinical variation abound however. Says Jim Veline, “The condition of patients when they are discharged is all over the map, but depending on the location our algorithms may not have the same implications. We are trying to standardize care but resources in each community are not the same. Registries, predictive analytics and care pathways may not address all clinical variation.”



“People who were unwilling to do things in a standard way previously are now willing to do it because we see results. We are bending physician behavior.”



**Bruce Smith**, CIO, Advocate Health Care

Bruce Smith notes that Advocate’s medical group has grown from 300 three years ago to more than 1,500 now. “We need structures to make decisions about standardizing care,” he notes.

“Memorial Sloan Kettering has physician panels making decisions for the whole organization and that has been successful,” said Pat Skarulis. “For the rest of us the question is can you find courageous physicians who will step up and defend order sets as well as openness. The CMIO position is one of the toughest positions around. Our structures don’t support the role, so the CMIO is still more of an influencer. Until we have physician decision making structures in place getting consensus will remain very difficult.”

Patrick O’Hare notes that at Spectrum he is having to back up and have conversations based on business variation especially around governance. His is a big organization with both large facilities and critical access hospitals, all with their own medical staff bylaws. There is not



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**Paul Merrywell**, CIO,  
Mountain States Health  
Alliance

just clinical variation but business variation as well which is causing challenges. One of the opportunities they are having is around process improvement. The health system has incentivized leaders to participate in process improvement but has not incentivized them to drive standardization and best practices across the organization. Paul Merrywell agrees. “That is exactly our problem. We have a big initiative around performance improvement, the problem is that it is disconnected. For instance, we may have an effort in one emergency department to correct a problem. Then we do the same thing in another hospital three months later and come up with a different process. We need to develop a best practice, document it and then spread it across the organization.”

Why are for-profits able to care for patients more effectively, or at least at a lower cost? Says Paul Merrywell, “For-profits, have a much more business approach to technology. There has to be a clearly defined return on investment (ROI) before you take on a project.” In fact most for-profits do not start an IT project without a clearly defined internal rate of return. They are typically a closed environment, and commonly will develop a standard product and roll it out across the organization. Jim Veline notes, however, that departments or service lines can get very skilled at developing ROI to sell their project, even if the ROI is not really there. They are struggling with how as an organization to get more disciplined about that process. Kyle Johnson notes that in a previous role her organization had a value-management program. “All they did was chase down and prove out the ROI and then it got put into budgets. They got punitive and didn’t let people do new projects if they were not a good steward of resources.”

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**Kyle Johnson**, CIO, Eastern Maine  
Healthcare Systems

With governance being such a hot topic, we decided to ask, “What is the role of the CEO in reducing variation?” According to Kyle Johnson, reducing variation starts with governance. Eastern Maine has an objective of moving toward an operating model and getting rid of waste and variation. “That starts with the CEO’s leadership but Board governance is also critically important.” Says Patrick O’Hare, “Reducing variation starts with executing on the vision and strategy. The IS team needs to avoid always ‘dumbing down’ IS explanations for the operational leaders and we shouldn’t separate IT strategy from organizational strategy.”

Bruce Smith went on to say, “In the next generation of CEOs, we need them to be more courageous and willing to take this on. The problem is that by tackling issues like this a CEO can jeopardize his relationship with the Board. You will make some people angry if you make some of these changes. Entrenched structures and deep-rooted spheres of influence and power will prevent you from succeeding. If the CEO is up there and does courageous things then the medical staff is going to start calling the board and the CEO will then be out. Often the Board is volunteer and doesn’t really understand the business of healthcare.” According to Bill Russell, the requirements for the CEO role haven’t changed. “The question is who we are going to put in those roles? The CEO needs to be able to get groups of people to do things they would not otherwise do. Too many make decisions just to keep the doctors happy. The CEO needs to understand enough about IT to be able to make the case.”



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## CARE MANAGEMENT/TRANSITIONS OF CARE

We next turned our attention to the areas of managing populations and managing costs. Among hot topics in this area were discussions around care management and transitions of care as well as cost-control strategies. Again issues around governance and standardization were a theme.

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**Paul Merrywell**, CIO, Mountain States Health Alliance

“At Mountain States,” says Paul Merrywell, “we struggle with care coordination primarily because of clinical variation. We are trying to come up with a standard approach to care coordination and the post-acute care visit. Right now we are focused on trying to understand how it is being done in other locations. But from an IT perspective we are asked to make changes every day that do not support decreasing clinical variation.”

Jim Veline reports that Avera has about 90 RN patient-care coordinators. “The problem we have is in understanding where they belong. Right now we have 30 in primary care, 30 in the health plan and the others are scattered around. So care coordinators have different agendas. There is no one owner in the health system and each area has different goals. We are struggling with that organizational chart now.

We want to have one standard of coordinated care and to understand where it best belongs and the skill sets that we need.”

“They do a good job but it is really not very scalable. Because of that we are only managing high-cost chronic conditions right now.”

**Ken Lawonn**, CIO,  
Sharp HealthCare

At Sharp most care coordination is within primary care, and they have matured into advanced care coordination. There are also a few service lines that have some care coordinators. “But the tools they use are really kind of crude and not integrated into the ambulatory EMR,” says Ken Lawonn. “They do a good job but it is really not very scalable. Because of that we are only managing high-cost chronic conditions right now. We are looking at what tools we are going to use across the organization from a system perspective. We need to get to common ground on how our organization does care coordination.”

Pat Skarulis views care coordination software as sitting on top of the EHR, making the EHR essentially middleware. She sees this software as a way to house care pathways for what should happen pre and post-hospitalization. Their project is in its early stages. At Spectrum IS created “The Magic Screen” for care managers, a single screen that displays information from eight different systems that care managers have to access. There has been a direct ROI as the screen has improved care-manager productivity. Spectrum is, however, hoping to replace their home-grown solution with core Epic functionality eventually because care-manager documentation still has to be done in one or more systems.

Sharing and aggregating data from disparate sources was also a key topic. Challenges abound here as well. A brand-new study from KLAS finds “Only 6% of healthcare providers report that information accessed from exchange partners on a different EHR is delivered in an effective way that facilitates improvement to patient care.” According to the framework from KLAS, in order for interoperability efforts to hit a “Home Run,” information from outside providers who are using a different-vendor EHR must be readily available, easy to locate, accessible within the clinician workflow and “delivered in an effective way that facilitates improvement in patient care.” In the KLAS study, almost three-quarters of providers surveyed didn’t even make it to “First Base” (reliable availability of information from outside providers using a different EHR). (Interoperability 2016: From a Clinician View-Frustrating Reality or Hopeful Future, KLAS Research) This study comes on the heels of another study indicating that 20 percent of all hospitals still don’t exchange even basic information electronically with any providers outside of their organization. ([Interoperability Among US Non-federal Acute Care Hospitals in 2015](#), ONC Data Brief, May 2016)

The CIOs agreed they are having to focus on high-priority use cases and solving tangible business problems as they try to connect to external sources. As for health information exchanges (HIEs), they question whether HIEs as we know them will survive, given the many challenges. Patrick O’Hare notes that Spectrum actively participates in an HIE in the state of Michigan. “Within the state of Michigan we are trying to do patient attribution at the state level. All Admission, Discharge and Transfer data (ADTs) in the state are going through that engine so that anybody

in the state can receive the information. The problem is that without a unique patient identifier it is not effective.”



“HIEs are suffering from schizophrenic identity. State funded ones are in jeopardy of not surviving. We’re all pushing data there but no one is asking for it back.”

Jim Veline, CIO, Avera

But in other areas HIEs are in heavy use. Pat Skarulis notes that in New York every hospital has to be part of the state HIE. The same is true in Maine. Kyle Johnson notes that in the state of Maine 99 percent of all providers are in the state HIE. The unique patient identifier issue was addressed when they initially started the HIE. Still, as EHR capabilities become more advanced she wonders about the viability of stand-alone HIEs. Jim Veline notes, “HIEs are suffering from schizophrenic identity. State-funded ones are in jeopardy of not surviving. We’re all pushing data there but no one is asking for it back.” In his region the HIE is trying to become more useful, for instance meeting with Medicaid to see how the data can be used to improve care.

Paul Merrywell notes that Mountain States is using APIs to alert primary care providers that a patient is being seen. “What we really want back from them is a CCDA—current meds, current problem list, allergies etc... Once the patient goes back home we want to close the event with an API that the patient has been sent home.” He agrees that HIEs are a huge aggregators of data but with the advances of interoperability between EHRs they may not survive.

### COST CONTROL

Among the group, IT is not as deeply involved in efforts to control costs as it is in other areas. Just a few of the organizations represented had implemented specific tools to help manage costs. For instance, at Mountain States the IS team has implemented a notification system for the cost of labs. “For all of the labs in the (EHR) system we have put dollar signs in front of them and the number of days it will take to get results.” The system ranks the cost from 1 to 4 dollar signs, a familiar scale for diners and other consumers, and helps push providers to select a test that is not only appropriate but may be a lower cost, or able to be performed internally and therefore resulted sooner.

Pat Skarulis notes that they have implemented “tons of medical logic modules” at Memorial Sloan Kettering. They are using these medical logic modules to make sure patients are placed on the proper protocol. Within protocols, ordering of very high-cost items will trigger an approval process, like getting the chair of infectious disease to sign off on a very expensive antibiotic. They are also looking at technology for radiology studies to ensure the appropriate exam is ordered for the appropriate reasons.

## PATIENT ENGAGEMENT/ACTIVATION

Finally, we covered the topic of patient engagement. A recent New England Journal of Medicine Catalyst Patient Engagement survey finds that patient engagement initiatives are having an impact on quality and cost, despite the fact that “many potential approaches have yet to be fully scaled and integrated into practice.” When asked what is currently the most effective patient-engagement initiative to “increase patients’ meaningful participation in their care,” the top response was the patient portal (cited by 38 percent of respondents), followed by secure email (14 percent). However, it is worth noting that many respondents have already either implemented or have plans to implement patient-engagement initiatives involving patient-generated data, wearable devices and social media. ([NEJM Catalyst Patient Engagement Survey](#), September 2016). All of the organizations represented at the CIO Summit already have patient portals and are actively trying to engage patients utilizing many different tools.

Kyle Johnson notes that Eastern Maine has done quite a bit of analysis around their market. “We looked at where our patients were going. What we found is that we do have some leakage out of the system but we found that more often there were challenges around using services appropriately within the health system. For instance, in some areas we didn’t have 24/7 hospitalists or ED coverage, so patients couldn’t stay in local areas and were sent to the tertiary care center instead. That is a problem because they are farther away from home and also because that facility stays 100 percent booked all the time.” These analytics will help Eastern Maine plan to take care of patients closer to home.

Mountain States is using telehealth. They have connected all hospitals emergency departments to the children’s hospital emergency department to help avoid transfers. They are also using telehealth to connect to school nurses. Another way they are trying to engage patients is to look at improving geographic proximity. For instance, Mountain States cares for a number of government employees. Very soon they will be opening a clinic specifically aimed at government employees and located very close to where many of them work.

Bruce Smith notes that Advocate’s marketing team is very actively working on digital strategies to connect with customers. For instance they are focusing on patients getting same-day results for mammograms, having access to online scheduling and a host of other customer-friendly strategies. System leakage is a big problem in the highly competitive Chicago market, and since Advocate has a number of at-risk contracts, that can be very expensive for them. Another tactic for Advocate was to purchase 56 Walgreen’s clinics because they wanted to expand their reach. They are not looking to make money on the clinics as much as to generate downstream revenue. It’s too early to tell if this is going to pay out for Advocate.



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**Kyle Johnson**, CIO, Eastern Maine Healthcare Systems

The fact that Spectrum Health has an insurance company brings a little different spin to their approach. “The insurance side of the business is willing to fund community-health workers

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**Patrick O’Hare**, CIO,  
Spectrum Health

and a more holistic approach in order to be able to influence behavior,” says Patrick O’Hare. “We might help set up mail-order medications if we find out the patient doesn’t have a car to drive to the pharmacy. Having the insurance side helps us to do some things that others can’t.”

Several organizations are making investment in customer relationship management (CRM) tools like Salesforce and others. Pat Skarulis notes that Memorial Sloan Kettering is implementing Salesforce, which at their organization is being led by marketing. They have developed a referring physician CRM and are now developing an application to enhance the new patient experience.

Bill Russell notes that in other industries they are using customer-experience maps that can be translated into healthcare to map the patient experience and determine what technology can enable or support improving that experience. Patrick O’Hare notes that Spectrum has done some of that work, even hiring someone from PepsiCo to help segment and analyze populations.

That discussion brought up another issue: There is definitely a trend toward control of applications moving outside of IT which is producing its own challenges. One CIO said, “The organization is fine with us owning the infrastructure but operations wants to control applications. For instance, marketing wants everything tomorrow. When they want to implement a new application IT puts a plan in place, but then marketing thinks it takes too long. As a result marketing goes out and tries to do it on their own, but then gets in trouble and turns back to IT to rescue them. There is a need to move toward more collaboration between IT and Operations. Marketing doesn’t want IT to control but it does want IT support.”

What then to do with “citizen developers?” Certainly healthcare organizations should not want to stifle creativity, however there does need to be some oversight over tools in use at the organization. Pat Skarulis notes that in order to avert potential security problems, they have come up with a governance process, along with policies, that the entire organization must follow. “If you have a computing group under you then they must follow these standards and do a self-appraisal against each one of the standards.” That’s one way they help identify and mitigate any security gaps.

**“Other industries are using customer-experience maps that can be adapted to healthcare to map the patient experience.”**

**Bill Russell**, Former CIO,  
Saint Joseph Health

Paul Merrywell notes that with a distributed model people have products they are responsible for within their budget, which also includes SuperUsers. The risk is that with belt-tightening many groups may get rid of SuperUsers and push back to IT to handle support. That could increase IT costs. Decentralized IT expenses make it very difficult to determine total IT cost.

## Realities of Managing Resources

CIOs everywhere are feeling stretched and strained, with both expanding and contracting responsibilities at the same time. Challenges are many, but in addition to governance, and the need for collaboration between IT and Operations, keeping IT resources current and managing demand jump to the top of the list.

Bruce Smith agrees there are a lot of challenges with IT resources staying up to date with the changes in their field, but he also notes that there is tremendous value in having employees with long-term organizational knowledge. “Long-term employees may start to get a little obsolete, but they have tremendous organizational knowledge. They also tend to be more loyal and do what it takes to get the job done.” Patrick O’Hare acknowledges the same and notes, “They are also more connected to purpose. We may not be able to compete financially for resources but we can compete if we can give them a sense of purpose.” Along these same lines, Pat Skarulis notes that every employee at Memorial Sloan Kettering goes through an orientation program geared toward mission. She also notes that they have a changing workforce. Far more IT resources are now working remotely, a big plus if you can eliminate a commute into New York City.

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**Bruce Smith**, CIO,  
Advocate Health Care

Jim Veline notes that his IT department is trying some different things from a management perspective. They are experimenting with a dyad approach. Managers in his department were all promoted because they had job specific skills. “Now that they are managers we are inundating them with paperwork. We are trying to carve that piece of management out to the administrative dyad. Now with dyad managers one person is doing administrative work and the other has strong clinical or financial skills.” So far it is working well.

The other major challenge is that of demand management and prioritization. The CIOs are trying to manage growing demand in a number of different ways. For starters, most of the CIOs noted that they have a growing headcount for next year. But beyond sheer numbers, strategies are largely around putting processes in place to force disciplined use of resources.

Ken Lawonn notes that Sharp is becoming more disciplined around the use of tools to manage resources. They are forcing people to plan projects and look at resource constraints. “Then we can have more transparent conversations with customers about what we can or can’t do,” he says. “They need to understand what we’d have to stop doing in order to do this project.” They are using Microsoft’s Project Web App (PWA) to assist with managing resources. Paul Merrywell’s team also uses PWA. His IT resources track their hours in quarter-hour increments so they can accurately track resource use for projects. Then teams can be open and communicate with their customers.

Jim Veline notes that demand is definitely increasing for his shop. “We are trying to push costs that belong in operations to operations. All implementations are now being outsourced and operations picks up that cost. IT will then pick up support functions after implementation. It works because it makes operations have more skin in the game.” Similarly Pat Skarulis notes, “We are also trying to control costs by pushing very aggressive timelines. By doing that we get consistent attention from both the vendor and users. It keeps momentum going and speeds up decision making as well. It also minimizes customization because the aggressive timeframe doesn’t allow time for it.”

Brent Snyder notes that at Adventist enterprise-wide applications are applied to the enterprise IT budget. Otherwise if there is a facility specific need or an application is not used broadly then all implementation costs, including licensing and subscription costs, will be billed back to that organization. That puts the onus on them to defend and justify it.

Bruce Smith notes that Advocate is trying to create a roadmap for what they are doing each year. “If we say we’ve got 15 things we have to do this year, we start there and make sure we do those well. The others are a political tennis match. You have to have a core that you are successful at doing and then somehow you deal with the other 100.”

## Conclusion

It seems clear that CIO challenges related to value-based care are about anything but the IT tools themselves. Sure interoperability is a challenge, but that is one they are working through using a variety of different approaches. Instead, the biggest challenges are about governance, systemization and demand management.

If IT is to continue to provide the support that operations needs to be successful in a value-based payment environment, some things will simply have to change. Perhaps that means that nonprofits will in some ways need to begin to operate far more like for-profits. At a minimum it means that healthcare organizations will need to rapidly develop systems out of federated states in order to be able to reduce clinical variation and reduce costs. It means that IT can no longer be relegated to the basement but rather needs to be integrated into every operational area, with very close collaboration between IT and operational leadership. It means that governance groups need to be expeditiously developed to make decisions about how care will best be delivered in the organization and to inform build of supportive tools like order sets and clinical decision support within EHRs. It means that operations will need to make decisions about the priority of each of their requests in the face of resource constraints. And, finally, it means that in the near term CIOs, among their many other job requirements, will need to become expert educators and influencers to help the operational team understand exactly why all of this needs to happen.

# Resources

Advanced Technology Improves Quality of Care at Hackensack UMC and Mt. Sinai

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-11-10.Advanced-Tech-improves-Quality-of-Care.Hackensack-UMC-Mt.Sinai.635mkn.pdf>

Nov. 10, 2016

MACRA: Assessing Its Impact and How to Move Forward

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-11-08.MACRA-Technology-Journey.9821mnv.pdf>

Nov. 8, 2016

Preparing for Comprehensive Primary Care Plus (CPC+)

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-11-02.CPC+.pnhy968.pdf>

Nov. 2, 2016

Characteristics of a State of the Art Call Center at Henry Ford Health System

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-10-18.Henry-Ford-Health-System-Contact-Center.962pky.pdf>

Oct. 18, 2016

Geisinger Genomic Initiative

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-10-11.GenomeFIRST.956knx.pdf>

Oct. 11, 2016

Preparing for the Merit-based Incentive Payment System (MIPS)

<http://www.scottsdaleinstitute.org/docs/teleconfs/2016/2016-10-06.Preparing-for-MIPS.983nxf.pdf>

Oct. 6, 2016

Optimizing the EHR for Measured Clinical Benefit

<http://www.scottsdaleinstitute.org/docs/pubs/ie/IE.2016-09.Optimizing-EHR.589kph.pdf>

September 2016

Integrating Data Across Systems of Care

<http://www.scottsdaleinstitute.org/docs/pubs/ie/IE.2016-04.Integrating-Data-Across-Systems-of-Care.32s3gw.pdf>

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