The No. 1 CIO Challenge

By Zack Martin
Managing Editor

Being a health care CIO or information technology leader is challenging on multiple fronts. Implementing cranky software on a shoestring budget is a challenge numerous CIOs have had to face during their careers. Dealing with staffing issues and inflated boardroom egos also creates a great deal of angst on a regular basis.

But when asked about the greatest challenge they face at the office, many CIOs don’t mention technology as the stickiest wicket in their I.T. initiatives. The No. 1 challenge to being a CIO, they say, is getting clinical and administrative staff to actually use, on a regular basis, the I.T. that CIOs and their staff have installed.

Results of a recent survey by Health Data Management back up that point. The No. 1 challenge cited by respondents—CIOs and other I.T. leaders—was gaining staff buy-in for I.T. implementations.

Twenty-eight percent of respondents said staff buy-in was their biggest challenge, followed closely by systems integration (27%) and funding (24%). The online survey, completed by 150 respondents, was sponsored by The Quammen Group, a Winter Park, Fla.-based health care I.T. firm.

These challenges are not new to health care CIOs. But the increased focus on software for clinical staff and the need to tailor those applications to fit clinical workflows have moved getting staff buy-in to the top of the list, says Becky Quammen, founder and president of The Quammen Group.

“All three challenges continue to dominate our dialogue with health care organizations as we partner with them to implement solutions to fit, support and improve clinician workflow,” she says. “It’s also a continuing challenge to each software and services provider in the industry to truly understand the processes that are being automated—without that understanding we will continue to get it wrong.”

Funding issues, for example, used to be the biggest challenge for I.T. leaders. But health care executives for the most part have recognized that automation plays a crucial role in the drive toward financial and clinical success, and have started to loosen the purse strings to fund I.T. initiatives.

The Health Data Management survey, for example, found that 63% of respondents expect their I.T. budgets to grow by at least 5% this year, 27% say their budgets will increase more than 10%. Only 1% of surveyed CIOs and other I.T. leaders expect their budgets to decrease.

Do you speak doctor?

At the University of Miami Miller School of Medicine, I.T. funding isn’t a big challenge for Elizabeth Rockowitz, executive director of business and clinical information management systems. Her most difficult task is working as a translator between clinicians and hospital management to ensure both sides get what they need, she says.

“I am often the go-between for these two groups,” she explains. “I am working on closing the gap that exists to make sure the product is what the physicians need and that it’s not something that management decided to purchase because they heard it was the best thing for the clinical staff.”

To help her tackle that challenge, Rockowitz hired a nurse and a physician’s assistant to help decipher what physicians need, and why.
Health care CIOs and other I.T. leaders plan to sink more money into applications that increase clinician data access and help reduce medical errors, according to the 2007 Health Data Management CIO Survey.

Of those respondents who expect their I.T. budgets to increase in fiscal 2007, 51% said the primary factor for those budget increases is to purchase technology that increases clinician access to information. Another 27% said their budgets will increase primarily to acquire technology that improves patient safety and clinical quality.

“It is gratifying to know that the need to provide automation to clinicians is still a top agenda item,” says Becky Quammen, founder and president at The Quammen Group, the Winter Park, Fla.-based health care information technology consulting firm that sponsored the survey. “This stuff is hard to do, very expensive and the projects run months if not years—and it’s very easy to get distracted or to divert funds to other capital requirements.”

In January Health Data Management e-mailed the survey to a sampling of subscribers who work at hospitals, integrated delivery systems or physician group practices, and have the title of CIO/vice president of information systems, director/manager of data processing/I.T./I.S.; medical director of informatics; director/manager of medical records; or group practice administrator. Health Data Management received 150 responses.

The survey results show that the trend of focusing on I.T. initiatives for nurses is continuing. Eighty-four percent of respondents strongly agreed or agreed that nursing I.T. has become a top priority at their facilities.

“With the industry focus on patient safety, it has become clear that the nucleus of activity surrounding a patient’s hospital stay is the nursing care and yet much of the daily nursing process remains manual and paper driven,” Quammen says. “Organizations are working to change this, and the nursing staffs at many facilities now appear to be ready and willing to embrace technology.”

The top software priority in 2007 for both hospitals and group practices is implementing electronic medical records, the survey found. But for all the hubbub surrounding industry certification of EMRs, survey results indicate that certification is not as important as vendors and some industry experts think.

Only 28% of respondents said that certification by the Certification Commission for Healthcare Information Technology will carry weight in their EMR selection process. Forty-two percent of respondents were unaware of CCHIT certification efforts, and 30% said that certification will only be meaningful once the program has matured.

The CCHIT is an industry-sponsored initiative that has been designated as a "recognized certification body" by the Department of Health and Human Services. The commission to date has certified 35 ambulatory electronic records systems as meeting specific criteria for functionality, interoperability and security/reliability.

The responses do not surprise Quammen. “There are so many initiatives underway in the health care industry that it is hard for any of them to gain consistent audience and traction,” she says. “Many folks find the alphabet soup of programs hard to keep up with and even harder to relate to in their daily work.

“I have heard many anecdotal conversations in recent months that the CCHIT certification may provide one element of information in an organization’s evaluation of systems but that it is not a comprehensive or accurate barometer of a vendor’s ability to perform in a particular setting. Many discuss the need for the CCHIT to mature and many vendors talk about the cost of re-certifying each year as new criteria is developed.”

Full results of the survey are available at www.healthdatamanagement.com.
“They help me understand what happens if we don’t get technology that fits their workflow,” Rockowitz says. “We have to remember that the physicians are the ones who are responsible for clinical care—and liable if something goes wrong—and are in closest contact with the patients. Sometimes it’s hard for non-clinical staff to understand that relationship."

For example, the university recently deployed new picture archiving and communications and radiology information systems.

Refining the clinical workflow of the PACS and RIS so it was intuitive for physicians was challenging. Explaining to hospital executives why it took so long was just as hard. “If something doesn’t go in as scheduled, there’s a tendency on the part of some executives to think that physicians are being high maintenance,” she notes.

In situations like this, when it seems hospital executives are having trouble understanding why physicians want something a certain way, Rockowitz has found it’s best to relate to them on a personal level. “You explain to them what this would mean if they had a relative in the hospital,” she says.

The other challenge Rockowitz has is convincing executives to pull the trigger on I.T. decisions. “Senior management often waits for a perfect solution—there’s a tendency to delay until every piece of the I.T. puzzle is figured out before going forward. But then another piece always comes along that doesn’t fit, and they often want to wait even longer.”

Thankfully, Rockowitz no longer faces the same hesitation from the physician staff. A few years ago, doctors were the ones who would challenge every I.T. initiative, but they now embrace them, she says.

For example, the university is putting together plans to roll out an electronic medical records system, which physicians support.

“I can get in front of the medical faculty and tell them how and why we want to implement an EMR, and they’re ready to go forward because they think it’s great,” she says. “On the other hand, explaining the benefits and consequences to upper management can be a harder sell because they still want to wait for that unbelievable, slam dunk solution—that doesn’t exist. You can’t give up great for perfection, because perfection isn’t out there.”

No backsliding

Daughters of Charity Health System has managed to move past that selling stage. The Los Altos Hills, Calif.-based delivery system already has deployed new applications designed to improve patient safety and quality, and reduce costs, says Richard Hutsell, CIO. “We have been successful in installing clinical technologies that have addressed all three of those goals,” he says.

Two of the main systems were clinical documentation and computerized physician order entry in the emergency departments in five of delivery system’s six hospitals. The applications, from Wakefield, Mass.-based Picis Inc., were fully installed in March 2006.

The delivery system also recently deployed an integrated PACS and radiology information system across its enterprise.

As with any new technology, physicians needed a bit of coaxing to begin using the applications, but use them they did, Hutsell, says. “Thanks to widespread adoption we’ve seen reduced wait times for services and had a steady increase in revenue per each patient encounter,” he says.

With its new systems working and physicians using them, everything seemed to be right in Hutsell’s world. But danger always lurks around clinical implementations, and Hutsell has found himself having to work overtime to gain physician buy-in ... again.

The foremost challenge is that some physicians have stopped using the clinical documentation and CPOE applications. There have been periodic interruptions in service with both systems, and some clinical staff as a result have reverted back to using paper to write orders.

“We briefly turned our attention in a different direction, and doctors started to backslide after a few hiccups with the applications,” Hutsell says.

In addition, physicians at the only Daughters of Charity hospital that has not implemented the CPOE and clinical documentation applications now say they don’t want the software because of the problems at the other facilities.

And to top it off, Hutsell has to keep fielding complaints from radiologists that the network moves data unacceptably slowly when they’re using the new RIS/PACS. “The radiologists have forgotten that it took them 20 to 30 minutes to get a film out of the library, while it now it only takes them five minutes to pull up images in deep archive,” he notes. “You can give clinicians new and improved technology, but they always want more.”

Hutsell and his staff are working to regain physician buy-in. The delivery system has invested in network infrastructure technology to eliminate service interruptions and delays. It’s also put a higher priority on fixing issues that physicians are having with network access.

“Our strategy is to fix problems as quickly as possible,” Hutsell says. “We have a scheme at our help desk that if a physician reports a problem with a patient care system it now gets the highest priority.” He also holds quarterly meetings to bring staff together and discuss what I.T. problems need to be addressed.

CIOs who have lived through a CPOE implementation often say the complex technology stands alone in its ability to flummox and anger clinicians. At St. Vincent Indianapolis Hospital, a CPOE implementation has taught CIO Brian Peters how to manage a family feud, he says.

The I.T. department has at times been a spectator as physicians, nurses and pharmacists fight cage matches over order sets, nomenclature and workflow issues.

“The pharmacy wants to call Tylenol one thing and doctors want to call it something else,” he says. “And when it
While many CIOs are finding it easier to get funding for I.T. initiatives, some I.T. leaders still have to find creative ways to stretch their dollars.

Mark Moran, director of information systems at Alameda (Calif.) Hospital, doesn’t have a capital budget for new projects and has to make due with an operating budget that is 1.3% of the total hospital budget.

Funds are tight because the hospital lost money two years ago and eeked out a small profit last year.

To get a project approved, Moran needs to show a return on investment of 18 months or less, or demonstrate that a mission-critical system is failing or about to fail and needs to be replaced.

Alameda Hospital recently has embarked on a few “fast” ROI implementations. It is deploying an imaging and therapeutic system from Westwood, Mass.-based Meditech that will eliminate manual processes for film tracking, documentation and transcription. The hospital expects to eliminate at least one full-time equivalent position that is tasked with manually entering charges.

Another fast ROI project is a scheduling/time and attendance system that has the potential to cut costs by streamlining costly scheduling processes and cutting down overtime expenses.

Given his budget restraints, it’s not particularly easy for Moran to get a new project off the ground. But it’s harder still to get funding to replace hardware and software that is failing or about to fail.

For example, the hospital uses a forms printing system that uses electronic chips embedded in its printers that receive information from the facility’s hospital information system and print out the appropriate forms. But the vendor of the system is no longer supporting the electronic chips, so Alameda Hospital must soon move to a software-based system. However, Moran hasn’t yet heard back from the executive committee about whether he can go forward with a new application, he says.

Also, to keep the facility’s I.T. operations up and running while on a shoestring budget, Moran and his staff sometimes have to get creative.

For example, some computers at the facility are seven years old and equipped with antiquated 833-megahertz processors. But they’re still being used, long after most facilities would have replaced them. “We move the older PCs to areas where users don’t need to access database or department-specific applications,” Moran says.

The I.T. staff also keeps aging servers running in the same fashion. The older ones, some of which are seven years old, are used to support non-critical operations, where they’re used until they fail.

Many CIOs are wondering how they can merge what everyone wants into one system.

Looking for targets

Berkshire Health Systems, like Daughters of Charity, is using 24/7 support as a weapon against clinician revolts, says Joe Diver, CIO at the Pittsfield, Mass.-based, two-hospital delivery system. “It’s almost like the ‘Geek Squad’ model you see on TV,” he says. “We’re always waiting by the phone, and if it rings, we’re there.”

Overwhelming support helped the delivery system successfully implement a bedside nursing documentation system, as did eight hours of training that included letting nurses use the application in a test environment.

After some bumps, Berkshire Health’s nursing staff fully adopted the documentation system and the cultural change it represented.

But the delivery system has been less successful with getting doctors on board with its CPOE system. “Doctors have a ‘what’s in it for me’ attitude when it comes to computerized order entry,” Diver says. “It’s been difficult to communicate the advantages to doctors.”

The CPOE system has been installed for two years, but only 50% of physicians are using the software to enter their medication, laboratory and radiology orders.

But Berkshire Health is embarking on an initiative to get 90% of physicians to adopt the technology by year’s end. To do so, it formed an executive steering committee comprising I.T. staff, physicians and administrators. The committee plans to identify individuals on the 220-physician staff who are not using the application and devise ways to “market” the software to them, Diver says.

CIOs who have been successful with getting staff buy-in for I.T. implementations have found that listening is a vital skill because success can hinge on many small things, including how many comfortable chairs are available.

Visalia, Calif.-based Kaweah Delta Health Care District has embarked on a “No Pen by 2010” campaign that is geared toward virtually eliminating paper by that year. To do so, the 290-bed hospital created a clinical repository five years ago and persuaded nurses, respiratory therapists and dieticians to do all their documentation electronically, says David Gravender, CIO.

The hospital also has dictated that lab and radiology reports can only be accessed online, and it has made other carrot-and-stick decisions that have helped prod physicians to use various
applications as Kaweah Delta works to implement a full-fledged EMR.

Don’t forget the cushions

But the hospital’s I.T. success has hinged on part on finding enough comfortable chairs. Most physicians with practice privileges at the hospitals don’t have office space in or near the facility.

While they want to do electronic documentation and ordering, some complained about having to stand at a nursing station for an extended period to use the hospital’s applications. So Gravender and his team have been running new power outlets anywhere there’s room to put them and replacing chart racks with PCs.

“We’re trying to put computers and more comfortable chairs everywhere we can, but space is limited so it’s been a real challenge,” he says. The hospital is adding another 180 beds to its facility and is trying to ensure those design plans include areas for comfortable workspaces for physicians, he adds.

Integration issues

Getting staff buy-in is the biggest challenge facing the I.T. initiatives of many CIOs. But in many instances, that buy-in is contingent on information systems working smoothly and seamlessly with clinical workflows.

And that task requires systems integration, or interfacing, an elusive goal for many health care facilities. And the biggest challenge to systems integration is trying to keep data flowing smoothly across applications while at the same time piling on more technology.

Lehigh Valley Hospital and Health Network has fought an ongoing battle to integrate systems, an especially tough task because the Allentown, Pa.-based delivery system has used a best-of-breed approach to software purchases, says Greg Zahour, director of technical support.

Lehigh Valley has more than 200 applications in use across its enterprise and operates 400 servers that run on virtually every flavor of operating system available, Zahour says.

“The challenge has been building interfaces that transmit the information physicians are authorized to see, but because of security concerns, nothing else,” he says. “Systems integration is not about making this cool thing where data flows freely across every application for everyone to see. The challenge is making sure different applications are sharing the data correctly.”

Lynn Witherspoon, M.D., senior vice president and CIO at Ochsner Health System, echoes those sentiments. But since Ochsner acquired three hospitals in the New Orleans area, its integration issues go beyond building interfaces between different applications.

“It’s a matter of understanding the core systems and then replacing them with the Ochsner standard platform,” Witherspoon says. “Challenges range from standardizing their network to incorporating them into our network.”

Ochsner Health System in October purchased three of the four hospitals in the New Orleans area owned by Tenet Healthcare Corp.: 203-bed Kenner Regional Medical Center in Kenner, La.; 207-bed Meadowcrest Hospital, Gretna, La.; and 317-bed Memorial Medical Center in New Orleans.

The networks at Kenner and Meadowcrest are technologically similar to what Ochsner has in place, but their security needs to be upgraded.

Security concerns

Staff at both hospitals now have access to the Ochsner network, but they must log in to their own network and then Ochsner’s, a cumbersome process that will continue until security issues are resolved, Witherspoon says. The network at Memorial Medical Center has not yet been linked to Ochsner because it requires more extensive upgrades, he adds.

Ochsner also has standardized the hospitals’ procurement platforms, human resources and payroll systems, Witherspoon says. The next step will be standardizing core billing systems and associated clinical platforms, such as registration and charge capture.

This summer Ochsner will replace the pharmacy and radiology systems at the hospitals along with evaluating other major clinical systems, Witherspoon says. “We are in the process of assessing the situation and potentially making significant additions to try to improve the quality of care and the care environment,” he says.

Kenner and Meadowcrest received some damage during Hurricane Katrina. Memorial Medical Center had 20 buildings destroyed in the hurricane, and its campus needs extensive work. The medical center now has 12 beds open.

“The main facility was flooded so badly and damaged by moisture and mold that we are not quickly able to open more of it,” Witherspoon says.

Ochsner plans to eventually extend the reach of its homegrown electronic medical record to the other facilities and standardize lab and radiology services at the hospitals. That information will later be made available to physicians at Ochsner’s clinics.

“Technology is not the challenge for us,” Witherspoon says. “We have done a good job in developing our technology platform and our own software. It’s really all about communication and how people do things, and how we can adapt our tools to that environment.” •