

CIO Calling: How Much IT Does an IT Project Require?

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by Todd Stein

When IT projects start, CIOs say they turn to HIM for detailed workflow knowledge combined with a high-level understanding of technology.

When Chicago's Northwestern Memorial Hospital decided to go paperless with an electronic record two years ago, CIO Tim Zoph saw that the key to the hospital's electronic future lay hidden in its paper-based past. He created a new role and named the hospital's health information manager the director of clinical information technology and HIM.

"The most important choice we made two years ago was to really tightly integrate those two areas," says Zoph, who is also a vice president of Northwestern. "As we transform into an electronic world, it's important to think of these two disciplines as a collective discipline."

Zoph's unique approach may soon become commonplace as CIOs begin to see the advantages of integrating HIM and IT expertise. Already, CIOs say they rely on HIM workflow expertise in implementing new health IT systems, and increasingly, top-level IT knowledge to help in system selection, implementation, and troubleshooting.

Blending Process Knowledge and IT Understanding

Work force specialists have long told us that HIM professionals need to expand their IT skills. As patient records move online and become distributed across networks, traditional HIM roles will become disbursed and automated. What will remain--and what will become increasingly vital--is the HIM understanding of how it all works together.

To apply this knowledge in the new environment, HIM professionals must do more than be open to change. CIOs of large and small healthcare organizations alike say the changes require that HIM professionals gain a greater understanding of how IT systems work. Top-level knowledge enables HIM professionals to help design and better manage new hybrid and fully electronic workflows.

"It helps if they understand at a high level the technology," says Jerry Powell, the CIO of the University of Rochester (NY) Medical Center, which is in the early stages of deploying an EHR to more than 800 physicians across some 70 locations. "In other words, that there is an HL7 interface between the lab system and the EHR, or how the patient information is collected and disseminated by the application, and how the EHR can provide good patient identification tools."

Powell notes that an HIM manager who has a grasp of the underlying technology can help a CIO in system selection as well as in its operation. Wading through hundreds of vendor offerings to determine which one system will best meet your organization's needs requires that you first identify those needs--the information minefields that physicians, nurses, and other providers sidestep every day but of which CIOs may not be aware. HIM managers, and no one else, can tell CIOs how many requests they receive each day for clinical, billing, compliance, and legal information.

Knowing that sort of information is invaluable to selecting an EHR, agrees Chip Childress, director of information technology for Holston Medical Group (HMG), a multispecialty physician practice in Kingsport, TN, whose 90 doctors were among the first in the nation to use an EHR to document patient visits. Without intimate knowledge of the everyday workflows that underlie an organization, it's impossible to tell what features need to be built into the new EHR, Childress says.

"A lot of selling an EHR to the practice is, What are our problems now and how is this product going to solve our problems?" says Childress. "HIM people are the ones in the trenches who know what's actually going on and can give you specific

instances that really resonate with your nursing staff and physicians and even upper management. A personal story will really help when you're trying to sell a multimillion-dollar system up the line."

In fact, when it comes to selecting and implementing an EHR, or any other enterprise-wide system, HIM professionals' first-hand knowledge of workflow may be their secret weapon. That, at least, is the view of Jamie Steck, the head of IT at Central Utah Clinic (CUC) in Ogden, a thriving, 110-provider organization.

"I find it most important for [HIM professionals] to understand workflow, because that's what physicians understand," says Steck, who helped implement an EHR at CUC that earned the organization a 2004 Microsoft Clinic of the Year award. "You can teach them the IT, but workflow is something you learn from years of hands-on experience... When it comes time to reinvent or reposition, that kind of knowledge is invaluable."

Which isn't to say that Steck expects little in the way of IT knowledge from his HIM people. In fact, CUC strongly emphasizes cross-training of its HIM and IT specialists, helping them learn from each other the skills that are most useful to EHR process improvement. "They can be much more valuable if they understand the full picture," says Steck. "I want them to be able to go anywhere [in the clinic] and, if they're dealing with either a workflow problem or an underlying technology problem, they'll have some idea about how to fix it."

Jack Kowitt is another CIO who emphasizes the value of combining workflow knowledge with IT insight. The CIO of Parkland Health and Hospital System in Dallas, Kowitt oversees the information needs of a 983-bed public hospital, nine primary care health centers, a multitude of outreach programs, a respected clinical research department, and more than 6,000 employees. As he sees it, an enterprise application project such as an EHR, PACS, or CPOE is a symbiotic partnership between the people who make the technology work--IT professionals--and subject matter experts like HIM directors who contribute to the system's content development and design.

"I need the HIM director to be a subject matter expert on what information we have to hold and present, how to move that information, and how do we make it best presentable to the end users," says Kowitt, who is several months into deploying a networkwide EHR at Parkland. "They have to know the regulations for coding, [for] retention, and they have to know hospital policies for chart organization, information organization."

Helping a Hybrid System Keep It Simple

What is it exactly about workflow knowledge that's so important to an EHR? The critical first phase of any EHR implementation is to map out existing paper-based workflows such as the routing of lab report approvals and then transform them into a simple, fail-safe electronic process within the EHR--often with savings in time and effort.

"A successful EHR really is about workflow and re-engineering," says Childress. "Core people like the HIM manager may not have technical knowledge, but they have to have workflow knowledge. If you don't have that person, the system will die. It's not about technical knowledge, it's about understanding the things that people do in their day-to-day jobs."

Childress relates the case of a workflow failure in HMG's EHR that was repaired thanks to the HIM director's unique perspective. Physician specialists at the group order a large number of laboratory tests for patients at the region's two largest hospitals, Holston Valley Hospital and Indian Path Hospital. But because the hospital labs lack access to HMG's EHR, they must fax the results to the ordering physician. To ensure that someone sees the test results, the labs also fax them to the patient's primary care physician, often an HMG provider. And to be doubly certain, the lab mails a hard copy to both physicians.

At HMG, meanwhile, all four reports are entered into the EHR, creating four duplicate reports or "ghost charts" that "clutter the record and drive the physicians crazy," says Childress. Some EHR implementations require months of re-engineering to correct similar workflow inefficiencies that are inadvertently carried over from the old paper-based system. To fix HMG's problem, Childress turned to his HIM director, who for 15 years has served as supervisor of medical records. She developed a solution so simple it seems obvious in hindsight. Kingsport's hospital labs now fax all their reports for HMG physicians to a single fax number in the medical imaging department, where they are scanned into the EHR by HIM professionals and routed electronically to the ordering physician for sign-off. The patient's primary care physician is copied with a nonactionable version to prevent a duplicate report.

"My HIM manager coordinated all of this with the hospital, saying here's how we're going to do this, and she got buy-in from our physicians--'We think this is the problem, here's what we want to do. Do you guys agree?'" recalls Childress. "Then she helped design a workflow in the EHR so it's effective and safe and we don't miss things."

Of course, the unspoken element that made HMG's process improvement possible was the willingness of its HIM director to jump in and engage the EHR head on. That sort of flexibility in the face of sudden change may be critical not only to an EHR's success but to the success of HIM professionals everywhere.

"The changes we're making with healthcare information technology are very exciting, and every employee is really being asked to think and act in new ways," says Northwestern Memorial's Zoph. "All of us need to get far more educated on process improvement methodologies, because those are skills that will become increasingly valuable in the information-based world we're all headed towards. But whatever your skill level, I would encourage [HIM professionals] to get involved in the implementation and be aggressive in pursuing opportunities to share their knowledge and skills. Because having that direct experience will really demonstrate their value to the organization."

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