



## Potential and Peril

*High stakes for CMIOs' leadership abilities in the age of reform*

**By Peter Eisenbarth and Patrick Kampert**

When Matthew Sprunger, M.D., was recently attending a medical conference in the South, he fell ill while eating at a local restaurant. As he waited for an ambulance, a local doctor leaned over him.

"If you have a choice, here's the name of the hospital you want them to take you to," he said.

The hospital that the physician recommended had been an early adopter of an electronic medical records system and had won an award for its efforts from the

Healthcare Information and Management Systems Society (HIMSS).

Sprunger, who is Medical Director of Clinical Informatics at Dupont Hospital in Fort Wayne, Ind., was reassured.

"When I was in a vulnerable state, I knew I didn't have to worry," said Sprunger, an award-winner himself from the Association of Medical Directors of Information Systems (AMDIS).

"I knew the chance of my getting the wrong medication was as close to zero as is humanly possible."

With health care reform being implemented and with stimulus funds from the American Recovery and Reinvestment Act being distributed, one of the primary beneficiaries of the government's largesse will be health care institutions implementing new information technology systems. Executed properly, the rise of technology in health care promises

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advances in patient safety, increased productivity and cost savings.

From an organizational standpoint, this means that the strategic importance of the Chief Medical Information Officer (CMIO) has perhaps never been greater than it is today. Nor has the need for leadership been more crucial.

In a national survey of medical professionals, Furst Group found successful CMIOs must have the unique ability to clearly interpret and synthesize complex technical information into meaningful data for clinicians and, likewise, must be able to persuasively translate the ever-evolving needs of clinicians to the IT staff.

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**Bill Bria, AMDIS president**

Most survey respondents concluded that, since many doctors are not familiar with the inner workings of their organization’s information system, it is paramount that the CMIO helps educate the doctors as well as champions their desires.

In other words, effective CMIOs need to:

- Focus on operational efficiencies



- Translate technical functionality into a practical clinical context
- Have the requisite IT experience to gain the most value out of their current (and, in many cases, obsolete) legacy systems

Bill Bria, M.D., president of AMDIS and the CMIO at Shriners Hospitals for Children, has long been a pioneer in health informatics. He is excited about the increase in government funding to bring medical records into the digital age.

“This year is a milestone,” he said. “This is akin to your birthday, to Christmas morning, to anything you can think of that is good. It cannot help but improve quality and safety.”

But he acknowledges there will be growing pains along the way. “There will be train wrecks and smaller-vehicle wrecks. But in the crucible of the marketplace, some of the best ideas will rise to the top.”

Most of the technological adoption in the medical field has come in the areas of billing and administration, Bria noted, with clinical applications lagging behind and medical record-keeping still firmly in the paper camp. “In the rest of the information industry, there has been a tremendous transition from cellulose to silicon. That lesson

hasn’t really hit home in American medicine,” he said.

But the signs say a shift is coming. A 2010 survey conducted by Modern Healthcare magazine concluded that the most powerful physician executive in the United States is David Blumenthal, the national coordinator for health information technology in the Department of Health and Human Services, whose office has been funded to provide more than \$19 billion to help hospitals and physicians transform themselves.

Eclipsys, Epic and McKesson are among the leading commercial developers in health-care IT. But Bria, who created AMDIS with Rich Rydell, adds that some of the best IT systems in health care have been home-grown, from Vanderbilt to Kaiser to Beth Israel to Brigham. (Bria’s former system, CareWeb at the University of Michigan, also is homegrown and is still in use today.)

“One of the reasons they were so successful is they grew organically,” said Bria, noting there is no “one size fits all” IT solution in health care.

For CMIOs, said Bria, leadership comes in letting workflow preface IT decisions.

“You don’t just take some money to make the systems prettier or to

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make them so that every millimeter of the screen has another drop-down menu,” he said. “What do people need to know? Who needs to know? And when do they need to know?”

However, the biggest stumbling block to adoption comes from user resistance to the enormous task of moving from paper to software. This is where the CMIO can play a critical role in easing organizational apprehension.

Bria has been soothing worried clinicians for three decades.

“There is a plethora of examples – from vaccinations to wound care to hand washing – where we forget to do what we know we’re supposed to do,” he said. “Human memory is fallible, and in critical situations where there is a time crunch, like the ICU or the ER, good people make stupid mistakes. Just-in-time reminders are very helpful.”

The CMIO also has to be able to be an advocate for what the general clinical community would want if they fully understood the potential of their information systems.

“I represent 700 doctors, 3,000 nurses and many pharmacists,” said Dupont’s Sprunger, a self-professed former “technophobe” who also is a practicing OB/GYN. “I have the chance to be a bridge-builder and to make sure that we minimize the chance for any

inadvertent negative aspects of the technology.”

This juggling act often raises an important question relative to whether the CMIO should be a practicing clinician. Some survey respondents believe it is imperative that CMIOs must be practicing medicine, because they believe this experience builds credibility with the entire clinical staff. Others believe the clinical background is imperative coming into the role but that the CMIO does not need to be actively practicing at the time.

M.D., president/founder of Computer Consultants for Professionals and a former vice president for both Eclipsys and IBM.

But Roger K. Howe, M.D., vice president of medical affairs for QualChoice in Arkansas, voices an alternative viewpoint. “The higher the demand that the CMIO continues medical practice, the higher risk that the demands for clinical time will derail the electronic bandwagon,” he said.

The reporting relationship is another area of significant debate: should the CMIO report to the senior executive in IT or to the CMO or even CEO?

At present, there is no industry standard. Respondents to Furst Group’s survey shared divergent opinions about best practices. Some voiced a concern that when the CMIO reports to the Chief Information Officer, he or she loses credibility with the larger medical staff. “If the staff thinks the CMIO is only carrying out tasks that benefit the IT system, at the direction of the CIO, then success will be

impossible to achieve,” noted Michael McCoy, M.D., of Physician Technology Services.

Beyond the position profile and management structure, organizations are facing hurdles on the implementation front related to cost, speed of adoption and complexity.



*‘If you’re going to do this,  
do it all the way.  
Go big or go home.’*

**Matthew Sprunger, M.D.**

*on the importance of hospitals embracing EMRs*

“In order to get staff buy-in, the process must be perceived and must in fact be a medically led project, with IT acting as the silent hero in the background. The medical staff should feel that leadership comes from someone they can relate to and who understands their pressures and interests,” said Samuel Bierstock,

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“This complexity results from the suboptimal design of the EMR interface requiring the navigation of multiple screens and multiple scrolls and clicks leading to steep learning curves and prolonged input time to do an EMR,” says Dr. Peter Stangel, M.D., medical director of Health Net of the

paper world by itself,” he said. “If you’re going to do this, do it all the way. Go big or go home.”

In addition to the sluggish transition to EMRs, the lack of agreement on standards has long been an obstacle. Howe sees three issues at work:

from new coding standardization to the quality of care for all patients, we know this will not be done overnight. Many uncertainties remain.

However, one thing is certain. The CMIO role has evolved and, in many aspects, has been redefined. At no time in the history of health care has there been more at stake relative to IT transformation. Yet the IT transformation is not just an IT transformation. This is an industry transformation that looks to improve patient safety, improve operational efficiencies and cut costs – while making life easier for all parties.

Over the next decade, the CMIO could well be the most important hire for many organizations.

Those who are able to deal with all the challenges effectively and weather the storm while providing alternative solutions will be seen as the leaders of this unparalleled IT movement, and their organizations will be the biggest winners of all.

Bill Bria, the dean of the movement, puts it this way:

“God willing, in 20 or more years, there won’t be a barrier. The practice of medicine and the use of technology will be as natural as can be. I’m looking forward to the day when we’re not talking about physicians and informatics – we’ll just be looking forward to the day when we’re not talking about physicians and informatics – we’ll just be talking about physicians.”



Northeast. “Clinicians can do paper charting faster than doing EMRs.”

Until EMRs are mandated from the top down, usage will be slow in coming, he adds.

Cautions Bierstock, “All hospitals will be in a part paper/part electronic mode of operation for a very long time – the majority of time, in fact, until there is a full function EMR in place – which is likely to be a decade or longer at the rate we are going.”

Sprunger hopes he’s wrong. Mixing paper and electronics is a dangerous place to be, he says.

“My personal belief is that mixing the two is more dangerous than the

- Privacy concerns
- Compatibility in communication. Leaders must ensure that what is information in one system “does not become noisy garbage in another.”
- Connectivity. “Bandwidth is very important – the exchange of information needs to be fast and real-time, but not to slow down the operations of the individual physician who is in the examining room with a patient.”

Clearly, there will be numerous ongoing challenges and potential roadblocks ahead for all involved in the transformation of the health care IT infrastructure. Regardless of the government’s \$19 billion-plus allocation of funds specifically directed at improving everything