Executive Leadership

The Chief Medical Information Officer and Beyond

The CMIO position got its start in marketing the value of clinical systems, but the role is now more than that and is a key force moving many health care organizations forward in clinical IT initiatives.

By Betsy Hersher

It seems that we have been writing and talking about the emerging role of the chief medical information officer (CMIO) for many years now. We have monitored this growing trend since 1992.

The increase in the number of information technology (IT) physicians has been significant. If we view the IT physician roles as an evolution, we can analyze this trend as a historically separate iteration. In the 1980s, as clinical systems started to appear, the first group of "in-house docs" built their own clinical systems. However, in the late 1980s, the CIO began working with clinicians to gain process understanding, credibility and buy-in during the selection and implementation of new clinical systems. The utilization of internal physicians who continued practicing 50 to 75 percent of their time served the purpose in the earliest iteration of a role with no title, little authority and no clear job description. Few educational programs supported these clinicians. Also, most of the clinicians had little experience in project management of clinical information systems.

The CMIO concept

The concept of the CMIO grew slowly, probably dating from 1992, until the present. The second iteration of this new role visibly changed. There was significant buy-in from peer clinicians and the executive team. The title of CMIO took shape with a large component of the job marketing the value of clinical systems in the delivery of care.

Job descriptions and accountabilities remained vague and time spent practicing decreased. The position reported to the CIO in most organizations. Vendors and consulting firms started hiring clinicians to support product development, customer service and marketing. In this vendor group of physicians, clinical practice for the most part stopped. The clinicians in these roles were passionate, although deliverables were vague, and success difficult to measure. Vendors and consulting firms used titles such as physician executive, vice president of transformation, and not CMIO, which seemed to be adopted by the health care delivery systems.

The reporting structure had little uniformity. Jobs for a vendor were vigorous with significant travel and little or no career path. Clinical systems evolved rapidly with a simultaneous need for physician involvement in quality, compliance, electronic medical record (EMR) and computerized physician order entry (CPOE).

Some clinicians got involved in the informatics degree programs supervised by Integrated Academic Information Management Systems (IAIMS) and others went through fellowships and informatics programs being started at academic medical centers and the Utah program.

As the new century started, government, business and hospital boards of directors began demanding significant and costly clinical systems to meet their quality and cost expectations. The mandates came from so many arenas the demand for IT-experienced clinicians grew exponentially, following a similar growth pattern as the evolution of the CIO's role in the late 1980s. But, that is where the similarity stops.

The reporting structure

There were still few job descriptions, accountabilities and career paths for clinicians. The title of CMIO on the provider side became a common denominator.

Still reporting to the CIO, the CMIO role became essential and recruitment from outside organizations became necessary. Until only recently, physicians continued to practice 20 to 30 percent, to maintain their credibility.

However, many events occurring simultaneously impacted the CMIO role significantly. The Institute of Medicine's, "To Err is Human" report, got government and industry more involved, which also triggered board concern and action. Quality, safety and compliance began to move the CMIO reporting structure away from the CIO to the chief medical officer and chief operating officer. Some CMIO***'s*** also began reporting to the CEO particularly if quality was part of their portfolio.

Physicians became project executives with little or no management experience. During this rapid change, the first and second group of physicians moved from vendors and consulting firms for a variety of reasons. They began leaving and going back "home" to the delivery systems. Travel, disenchantment with products, corporate behavior no visible career path and more senior positions in delivery, were the drivers of the initial exodus. Thus was born the current and third iteration of IT physicians.

What was lost is found

The industry has realized that practice of medicine one day a week does not define a respected CMIO. So, what defines the role? The CMIO role is growing so rapidly that support structures can hardly keep pace. Physicians have very full plates. Meanwhile, boards and executive teams are under great pressure to quickly deploy EMRs and CPOE.

During the last few years C suites have been entirely wiped out. New executive teams decided that changing the CMIO reporting structure was a potential option. Today, government, business, boards and consumer pressure influence the physician roles. Boards and executive teams are panicking over the need to have CPOE, EMR and complex clinical databases, with a corresponding demand for physician CIOs. Overly engineered organizational charts are the result, but will any over-hiring support the CMIO position and physician CIO?

Some executive teams have kept the current CIO and have hired a senior CIO. The concept of an "Office of the CIO" is gaining momentum. The Office of the CIO can include all of the senior IT leadership (the CIO, CMIO, chief technology officer and office of project management). The office of the CIO is utilized extensively as an outsourced environment. Facilities are seriously considering hiring CIOs who are physicians. These physician CIOs will need a strong operational support team outsourcing and/or creating a viable team by utilizing the Office of the CIO.

Hersher Associates, Ltd., conducted a survey of 246 facilities in November 2005. Of 100 respondents, 48 percent had hired a CMIO and 52 percent had not. In a similar Hersher Associates survey in 2001, 36 percent indicated having a CMIO and 59 percent had not hired a CMIO.

These figures coincide with our national search assignment statistics. In 2001, Hersher Associates placed two CMIOs; in 2002 six CMIOs; in 2003 five CMIOs; and in 2004 six CMIOs. In 2005 Hersher Associates had completed or has in-process searches for eight CMIO candidates. The demand is great for an experienced CMIO. What is driving the demand and what role should the third-iteration CMIO play?

Good for business

According to Tom Tintsman, MD, executive director for clinical information services at UCDavis Medical Center in Sacramento, Calif., "It is believed that the business boom of the 1990s, was the result of automation increasing productivity in the United States. If one believes this, one believes that 'lubricating a process' using IT is good for business."

Tintsman said that health care speakers and writers casually accepted that the industry had not adopted process automation like other businesses. Imagine a business person sitting on a health care facility's board listening to this. The board member would apply his/her personal business experience with information systems (IS) and ask IS to automate its processes. Health care management would agree that their processes should be automated but quickly add that automation is expensive and slow, and the risk of clinician resistance is high. The business person persists and asks for a proposal to automate clinical care.

Tintsman continues, "To prepare such a proposal, large, high-level questions must be answered. What are we really attempting to do? Does it require new executive skills and knowledge? Should the organizational structure be changed? Automating the clinical care process is more expensive and challenging than building a new facility. The project changes everything and everyone in the organization. Changes of this magnitude must be supported by the board, sponsored by the CEO, and lead by the COO. The COO knows from experience the large risk of physician and/or nurse rejection. To mitigate this risk, the COO begins a search for a CMIO, not certain about reporting relationships, responsibilities, or the EMR program process. Supporting this view in the last two years, we have seen reporting changes for both the CMIO and the CIO."

In order to accelerate new senior roles for physicians, we are beginning to see overly engineered organizational charts usually hiring skilled implementers. One has to wonder if the CIO is a physician, does a CMIO report to him/her? Some of the third-generation IT physicians have become disillusioned. If they work in complex health care delivery systems, their funding suddenly may disappear. If they work with a vendor or consulting firm, their roles are sometimes changed or eliminated. It appears that the safest and most productive health care enterprise is on the delivery side for the physicians. One of the motivators for becoming a CMIO was to define and develop or install systems for delivery of patient care.

The majority of IT doctors have earned the right of passage so they can give 100 percent of their time and effort to their still, relatively undefined job as they become key members of the executive teams.

Where from here?
The 2005 Hersher Associates, Ltd., survey shows a slight change in reporting structure. Of the 48 respondents, 61 percent of the CMIOs report to the CIO, 20 percent report to the CEO and 8 percent report to the CMO. This is a clear shift reflecting some changes in responsibility mentioned earlier.

Roadblocks, career paths
Some of the clinicians are not quite ready to move into the executive suite. Many may not want to give up that white coat hanging on the back of their office door for a suit full-time.

There are few hard-and-fast slots designed for physicians. Sometimes a new job just happens. An astute candidate can design his/her own role and generally market it to the CEO. Savvy CIOs will hand out significant accountability to the CMIO. The same should occur with the rest of the executive team, who are dedicated to quality and safe patient care delivery.

Where are we going?
The following skills and experience will support success for a clinician in an IT role:
- Previous experience in management, consulting, installation/project oversight
- Passion
- Ability to collaborate
- Leadership
- Ability to teach
- Patience

Potential success blockers
What are some of the common things that can get in the way of an IT physicians success?
- Wrong job, wrong reason
- No real authority
- Lack of managerial experience
- Lack of support
- Unrealistic or wrong expectations
- Few meaningful job descriptions

Redesign
How can a physician make him or herself attractive to an organization, peers and the board?
- Insist on management responsibility
- Budget responsibly
- Learn how politics work
- Attain or work toward an MBA
- Most import, cultivate the ability to explain technology-based business decisions

The continuing CMIO role

An increasing number of today's organizations see the need for CMIOs and vice presidents of quality and safety. Those roles are being filled by physicians. The hiring of physician CIOs is a trend receiving national attention in response to CPOE, EMRs and other significant issues and costly implementations. Significant new skills are needed for the CIO role, too. Physicians need to be careful to review the support systems available to manage their role with IT clinical ambulatory and in-house implementation a scarce commodity, we percieve a potentially broader role, the Chief Clinical Information Officer role - thus opening the door for other clinical leaders.

It appears that vendors are also seeing a renewed need for physicians to be available for a myriad of key responsibilities.

Arlene Anschel, senior vice president of Hersher Associates, who works with many CMIOs, said, "The marriage of the vendor and physician is one that provides a mutually beneficial working relationship. Vendors utilize systems physicians expertise in sales, consulting, research and development, and education. Physicians who have minimal applied or operational experience can gain skills in implementations, consulting, project management and knowledge of software. Working in the vendor's client hospitals enables them to learn about clinical systems. They serve as consultants to the hospital physicians and provide education on the use of the vendor product. They become trained in a practical and hands-on way in the clinical systems arena. Even if a physician has formal academic training, the vendor provides 'graduate school,' and prepares the physician for the next step into senior positions in health care delivery organizations. These can include CMIO, executive positions in information systems, senior roles in research and development, and even perhaps, CIO.

The physician provides the vendor with a means to interact with clinicians and executives in their respective client organizations. The physician is an important conduit from the software vendor to its client. The vendor can benefit from physicians who have good business and entrepreneurial skills. The physician and vendor serve as a resource for each other and create a win-win situation."

Nonetheless, physicians should exercise caution when reviewing the support and dollars available for any new position. An employment contract is essential to this relationship. Beware of taking a role that could be expendable in two years.

A technological management role

Most organizations have started or are actively planning to implement an EMR with CPOE. The CMIO is finally being recognized as an important role in many health care organizations. Some organizations are looking beyond the vendor implementation and asking how information systems can be used to improve the quality of care and the productivity of their clinicians. If organizations are struggling with the best structure, executive skill and knowledge for the implementation, adding those appropriate personnel will be even more challenging. Once again, this raises the question of the CMIO's reporting structure and responsibilities.

Some new organizational charts show a potential partnership with the organization's current CIO. The CIO's operational team reporting separately could cause havoc and project problems. Now that we have a large number of qualified CMIOs and

more on the way, it is incumbent on the health care community to understand that this is no longer an emerging role but one that is established and recognized as a key position.

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