Journey to Stage 7
Nursing Adoption
Where Do Hospitals Go from Here?

HIMSS Analytics developed the EMR Adoption Model in 2005 as a methodology for evaluating the progress and impact of electronic medical record systems for hospitals in the HIMSS Analytics Database. There are a total of eight stages (0-7) on the EMR Adoption Model, with the goal of reaching Stage 7—operating in an environment where patient care is delivered without the use of paper charts; where clinical information can be readily shared with other entities within a health information exchange; and where clinical data is used for performance improvement and analysis of care delivery.

Many of us have been on the EMR journey for quite a while, and within this context it is difficult to imagine that the number of fully-implemented, paperless hospitals remains at 1 percent. Though I live it every day and am well aware of the many pitfalls and challenges, I continue to be amazed at the slow pace of IT implementation and adoption in healthcare. Of course, much has been analyzed, evaluated, dissected and proposed about why this journey has been so challenging, and I don’t intend to recap that all here. But I did want to delve into Nursing’s parallel journey on the road to adoption of clinical information systems within nursing’s workflow and patient care experience.

Following on my column from the last quarter’s JHIM, where I described nursing’s “love/hate” relationship with IT, I want to discuss some interesting surveys and studies about nursing’s adoption of IT and the journey to Stage 7. Though much has been examined and documented about physician’s use and adoption of technology, much less has been studied and written about nursing’s adoption of IT. But here are some noteworthy insights into the current state of nursing affairs.

NURSE EXECUTIVES DISSATISFIED WITH CURRENT IT SYSTEMS

Despite the widespread belief that IT will ultimately improve patient care, nurse executives remain dissatisfied with the current state of nursing systems, especially clinical documentation. In The Advisory Board Company Nursing Executive Center’s 2007 Nurse Executive survey, 114 respondents from a wide range of institutions expressed frustration with existing documentation systems, particularly related to the demands on staff nurse time, the need to incorporate regulatory requirements into day-to-day documentation, and the inefficiency and redundancy of many existing clinical systems.

In response to the statement “Overall, I am satisfied with nursing documentation at my institution”, the nurse executives’ results showed: 38 percent agreed with the statement (1 percent strongly agreed; 10 percent agreed; 27 percent tended to agree); and 62 percent disagreed with the
statement (16 percent strongly disagreed; 22 percent disagreed; and 22 percent tended to disagree).

HYBRID ENVIRONMENTS ADD TO FRUSTRATION

Rapid implementation of nursing documentation helps avoid the inherent issues with the part-paper, part-electronic hybrid state that can occur with phased implementations, which, in turn, causes frustration for nurses. Since nurse care planning, documentation and outcome analysis tools are relatively young in EMR product development and implementation, this state has often occurred at many organizations. The 2007 Nurse Executive survey³ reported that of 122 respondents the vast majority had many of the key components of clinical documentation automated, including assessments, vitals, I & O, flowsheets and care plans. Interestingly, only 8 percent reported documenting completely on paper. Unfortunately, an overwhelming 47 percent reported practicing in a hybrid environment, where some documentation was automated and other parts were still on paper. The parts most frequently remaining on paper were discharge planning and patient teaching. To reiterate, this fuels nurse dissatisfaction with their documentation system, as well as annoyance with a less-than-smooth workflow.

The survey data also suggested that Nurse Executive satisfaction with nursing documentation rises dramatically with each stage of EMR adoption. Satisfaction scores were at 19 percent in hybrid environments; 61 percent in fully automated nursing documentation settings; and 100 percent in organizations with a fully implemented EMR.

CHALLENGES WITH NURSING AUTOMATION RUN DEEP

There are several factors that confound nurses as they try to adopt technology and redesign their workflow to transform care. A KLAS Survey of 251 nurses (68 percent) and IT professionals (52 percent) in 2007³ detailed one cause as suboptimal vendor product offerings for nurses. In their vendor evaluation scores, even the best vendor scored only 23.3 out of a possible 40 points, demonstrating respondents’ dissatisfaction with the depth and quality of the nursing systems offered. As orders and results review become ubiquitous, nurses reported the need for increased emphasis on the “tough stuff”—like interdisciplinary care planning, ICU functionality and patient teaching integration. Product development in these “tough” areas has been slow and sporadic. Often times, vendor R & D time, talent and money have been spent in other areas where there is perceived to be more benefit, like CPOE and physicians’ progress notes. Again, this has resulted in the absence of nursing offerings and/or immaturity of nursing application offerings, and has perpetuated the hybrid environment.

When asked to share their list of root causes for nursing implementation and adoption issues, in the same KLAS Survey, respondents reported several themes: missing functionality; poor software quality; inability to get a quick “overview” of the patient’s condition; the struggle for software to support efficient processes and workflow; problems with data entry devices and human factors, including wireless connectivity issues; and training and support challenges.

BRINGING NURSING TO THE FOREFRONT

Nursing is no longer the only healthcare profession to recognize the importance and complexity of nursing documentation systems. After spending years focused on ancillary and physician information systems, health information technology executives are finally focusing on nursing. In a 2007 survey conducted by Health Data Management⁴ 150 CIOs admitted turning their attention to nursing-related IT applications. Eighty-four percent of respondents strongly agreed or agreed that nursing IT has become a top priority at their facilities. With the industry focus on patient safety and patient satisfaction, it has become clear that the nucleus of activity surrounding a patient’s hospital stay is the nursing care—yet much of the nursing process remains manual and paper-based. Healthcare executives and IT leaders are recognizing that they need to work to change this.

IT LEADERS RECOGNIZING THE IMPORTANCE OF CLINICAL SYSTEMS

The 2008 HIMSS Leadership Survey⁶ continued to document this trend toward the importance of clinical information systems. Forty-five percent of the 307 CIO respondents cited clinical information systems as the most important application in the next two years—as compared to 42 percent for CPOE; 30 percent for closed loop medication management; and 29 percent for clinical data repositories. This was echoed in the responses to the question regarding current and projected IT priorities as well. Forty percent of the CIO’s identified inpatient clinical information systems as their highest priority—as compared to 27 percent for business continuity and disaster recovery, and 24 percent for ambulatory clinical systems.

Another interesting survey result concerned IT staffing needs. In this same survey, five of the top eight staffing needs were related to clinical applications. CIOs reported needing help with clinical applications (59 percent), clinical workflow redesign (23 percent), clinical informatics (20 percent), clinical transformation (19 percent), and user training (16 percent). The only other areas making their list were network/architecture (26 percent), systems integration (25 percent), and help desk (17 percent). So, not only are CIOs recognizing the importance of clinical information systems, they are recognizing the importance of having clinicians working on the design, implementation and adoption of those systems.

STAGE 7 NURSING ADOPTION

Interesting parallels can be drawn between the progress of healthcare organizations’ overall technology adoption
and nursing’s adoption of clinical information systems within their complex workflow and at the point of patient care. Both know Stage 7 is out there, despite very few organizations achieving that top level yet. Both are experiencing many of the bumps and barriers along the journey. Both are moving ahead, learning from their mistakes, and building their bodies of knowledge to understand the factors involved with adoption - taking measures to overcome the challenges and mitigate the risks. My hope is that nursing will stay with the rest of the industry and get to that “tipping point” of ubiquitous use of health IT in the next few years.

And let’s hope that when the final specifications of the ARRA are set at the end of the year by the Department of Health and Human Services; that the definition of a “qualified EHR” includes nursing functions; and that “meaningful use” includes use by nurses. This will be the “shot in the arm” that we need to move ahead on the adoption curve and begin to create a new practice environment for nurses, the largest caregiver workforce.

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**REFERENCES**


