The U.S. healthcare industry is influenced heavily by evolving, complex federal and state regulations. Recent federal legislation involving government investment in healthcare information technology (HIT) has proposed to incent healthcare organizations to adopt technology with the goals of improving healthcare quality, patient safety and efficiency. Under the American Recovery and Reinvestment Act (ARRA) of 2009 and the Healthcare Information Technology for Economic and Clinical Health Act (HITECH), hospitals and physicians satisfying “Meaningful Use” (MU) criteria of Electronic Healthcare Records (EHR) are eligible for incentive payments from Medicare and Medicaid.

While many healthcare organizations are diligently working to satisfy the federal government’s EHR financial incentive criteria, the transition from a paper environment to an electronic system is much harder than many realize. Only 38.3 percent of hospitals, for example, have surpassed Stage 4 of the HIMSS Analytics Electronic Medical Record Adoption ModelSM (EMRAM). This is a significant finding, as EMRAM is a widely embraced framework for assessing the EMR capabilities within the acute care setting, and EMRAM Stage 4 is generally regarded as a proxy for the capabilities needed to meet initial criteria for achieving MU. The adoption of EHR technologies is costly and time-consuming, and incentive payments are only received based on specific terms in the legislation. Currently less than half (43 percent) of integrated delivery systems or single hospital systems have completed their EHR implementation, and implementations are still underway for 52 percent.
Concerns Surrounding an EHR Implementation

In an effort to better understand the EHR implementation environment, TEKsystems commissioned HIMSS Analytics to survey IT professionals in U.S. hospitals regarding the approaches healthcare providers have pursued or are pursuing in implementing an EHR in their organization, as well as to ascertain the various ways providers have addressed or plan to address select EHR obstacles. The findings presented in this report summarize the survey participants’ responses.

Achieving End User Adoption

End user adoption is assumed to be a critical success factor to any EHR implementation effort. Nearly half of the healthcare organizations surveyed expect their end users to adopt the new EHR system, enhancements or upgrades within six to 12 months post go-live. However, more than half of healthcare professionals (64 percent) believe achieving adoption is a roadblock to a successful EHR implementation. Once the new system is in place, only one-quarter (26 percent) of healthcare professionals are extremely confident that their end users will fully adapt to the new system.

Maximizing Return on Investment (ROI)

A successful EHR implementation clearly requires a significant investment of time and money by a healthcare organization. Survey respondents voice concern about the impact on efficiencies in patient record reviews post implementation. Pre-EHR implementation, 56 percent of respondents stated that they spent on average, less than 30 minutes reviewing patient records. Post EHR implementation, 71 percent of respondents report spending up to an additional 30 minutes reviewing patient records.

With hospitals in this survey servicing more than 1,600 patients on average per week, the efficiencies lost on chart reviews and corrections can seriously impact staff morale and an organization’s operating budget, in addition to the impact on patient safety.

Yet a sizeable percentage of healthcare professionals are concerned their organizations won’t recognize a return on their investment (ROI). In fact, more than half (54 percent) of the respondents in this study reported that they cannot quantify their ROI, and they expect to operate at a loss or just break even. Only one-quarter (26 percent) of respondents are extremely confident in their organization’s ability to meet their expected ROI within their decided timeline. For the majority of these respondents, more than half (53 percent) expect to achieve their ROI within three years of the system being implemented.

Keys to Achieving a Successful EHR Implementation

To maximize meaningful use and reduce delays, rework and potential damage to the IT department’s reputation within the organization, respondents were asked a series of questions regarding end user usability of EHRs and EHR adoption. The results of our study supported the argument that organizational efforts focused on proactive planning, end user involvement/support and tailored training would increase end user confidence and support of the EHR.

Allocate budget and focus

Another key finding of the study centered on the financial resources required for a successful EHR implementation. Healthcare organizations need to allocate the appropriate budget to support their EHR.

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1 A total of 300 IT professionals in U.S. hospitals responded to a HIMSS Analytics Web survey between October 19, 2012 and November 28, 2012. Survey participants claimed to have some degree of knowledge of their organization’s EHR implementation or upgrade processes.
implementations, but questions remain as to how these dollars are used and best managed. According to our respondents, the IT department is primarily responsible for the EHR implementation from a budgeting standpoint (per 75 percent of organizations), as well as for the EHR’s general oversight (64 percent). The evidence of this survey suggests there are also concerns regarding the appropriate management of EHR budgets. With organizations on average only allocating 16 percent of their total EHR budget to training and change management over the lifetime of the EHR implementation, approximately 57 percent report to be over budget on their EHR costs. This suggests many organizations did not set realistic budgets for their implementation program.

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The budgetary performance problems exhibited by many organizations may also reflect the delays and rework required around the EHR rollout. With nearly half of healthcare professionals (47 percent) expressing a desire for better communication around EHR implementation and change management, an increased focus on end user EHR concerns could translate into increased implementation effectiveness. The findings also suggest that organizations should concentrate on supporting their end users. Forty percent of survey respondents requested more training, and 37 percent would like to see a support staff with EHR implementation experience.

Start planning early

Any large-scale implementation like an EHR effort requires dedicated preparation across the enterprise. Many healthcare professionals would like their organizations to devote more time to preparation; 43 percent request more proactive planning from their leadership. Organizations that spend time planning for their implementation discuss EHR’s impact on budget, daily operations and end user readiness – critical components to a successful go-live. Training is a critical component of planning, yet 74 percent of healthcare organizations only started training one to three months prior to the EHR implementation start date. Incredibly, four percent of the respondents claimed their training efforts did not begin until after the EHR implementation was complete. Organizations should devote time to evaluating training partners, assessing end user technology competencies and customizing the curriculum before the end users begin the training program and before the go-live period.

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Involve end users in the process

Increased involvement in the planning process would make nearly half of healthcare professionals (47 percent) feel more confident in a successful implementation. While executives and other decision makers by and large are completely engaged in the implementation process, the same cannot be said of end users. Overall, less than half of clinical end user stakeholders are deemed completely engaged in the program; even the trainers for the new system are not fully engaged, with only 59 percent reporting their
trainers are completely engaged in the process. End users with awareness of the upcoming implementation and the opportunity to provide feedback during training will arguably have more ownership in the process and increased confidence post-implementation.

**Bring in the right resources**

A customized curriculum, led by experienced trainers, will facilitate learning and create an impactful experience. Sixty-six percent of healthcare professionals cite the challenge of finding the right workers with the right skills for the implementation, and more than half struggle with finding the right people to build a training program (57 percent) or lead the classroom discussions (53 percent). The majority of healthcare organizations, 94 percent, provide classroom instruction, although other methods such as one-on-one trainers, peer trainers and Web-based training contribute to the training programs. Training responsibility should belong to instructional designers, clinical educators, technical trainers and super-users (peer trainers) with EHR experience.

![Image: 91% of healthcare professionals believe an effective curriculum will map to their existing operations and be applicable to their real world situations.]

**Tailor training by job role and workflow**

Healthcare professionals claim a structured, customized training program can help organizations achieve meaningful use. Specifically, 91 percent of healthcare professionals believe an effective curriculum will map to their existing operations and be applicable to their real world situations. Eighty-five percent believe a curriculum that encompasses the varying needs of the end users will lead to increased user adoption and decreased learning curves. Healthcare professionals also desire learning modules tailored to specific jobs (77 percent) and workflows (88 percent). Training must be applicable to each hospital or facility’s systems, user population and technological requirements. Poor training can lead to potentially damaging outcomes regarding patient safety and confidentiality.

**Continue to support end users after go-live**

Healthcare professionals rank the need for training support during implementation and post go-live as the most critical task to a successful EHR implementation. Eighty percent of healthcare professionals report their organization has the appropriate resources dedicated to this area, and on average, most in-house and contingent resources in the implementation process are dedicated to supporting user inquiries post go-live.

Most organizations may underestimate the amount and degree of post go-live support needed, however, as 72 percent of end users with a completed EHR report waiting up to an hour to receive an answer to an EHR question.

With more than 50 percent of healthcare organizations anticipating end users will need more than six months to adapt to the new system, the duration of support resources is critical. Sixty-one percent of healthcare organizations plan to maintain on-site support for only 30 days post-implementation or less, suggesting that many end-users aren’t receiving the targeted help they need.
Conclusion

While EHRs offer many benefits to healthcare organizations, providers have struggled to seamlessly achieve their expected ROI. Organizations that approach their implementation with the end result in mind will provide their staff with the support needed to use and embrace the new system. Through proactive planning, end user involvement and tailored training support, healthcare organizations can increase end user confidence and adoption, resulting in positive patient outcomes.

ABOUT HIMMS ANALYTICS

HIMSS Analytics is a wholly owned not-for-profit subsidiary of the Healthcare Information and Management Systems Society. The company collects and analyzes healthcare data related to IT processes and environments, products, IS department composition and costs, IS department management metrics, healthcare trends and purchase-related decisions. HIMSS Analytics delivers high quality data and analytical expertise to healthcare delivery organizations, healthcare IT companies, state governments, financial companies, pharmaceutical companies, and consulting firms. Visit www.himssanalytics.org for more information.