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Does Your EMR System Generate the Results You Deserve?

An Executive's Guide to Evaluation of System Performance

Hospitals and health systems are increasingly frustrated with electronic medical record (EMR) performance. The reasons are understandable. For the first time, the industry has achieved full digitization of information with Stages 1 and 2 of meaningful use, intensifying the push toward digitized financial and clinical information. Now, however, healthcare organizations (HCOs) have begun to question if digitization of clinical information will support their strategic imperatives and fulfill clinical, financial and operational goals.

"2013 has been a year of change, usability frustrations and replacement systems," says Doug Brown, managing partner of Black Book Rankings. "Providers' deal-breaking annoyance with some EHR vendors has turned 2013 into 'the year of the great EHR switch.'"

Among the issues faced by HCOs: Will digitization aid HCOs in moving forward on Stage 2 and 3 meaningful use with its intense focus on enhanced outcomes, care coordination and health information exchange? Equally important, can digitization support three-to-five year anchor strategies like value-based, accountable care, population health management, portal-based patient recruitment and retention, personalized medicine and collaboration across the care continuum?

HCOs Target EMR System Evaluation

Both executives and clinicians want answers, making EMR performance monitoring and evaluation a top priority. HCOs have typically selected and implemented EMR systems and may have already fulfilled Stage 1 meaningful use requirements. Still, they continue to wonder if their EMR systems are robust, intelligent and flexible enough to weather the journey toward healthcare transformation. If not, what role should the HCO play in engineering change in systems and processes?

Among the issues for consideration: Can the HCO "fix" the EMR system? Should it invest in upgrades and third-party applications, or are the costs so prohibitive that it makes more sense to find a new EMR system? To what extent do internal processes and workflow prevent or constrain EMR system performance? Finally, how can the HCO minimize or remove performance barriers and re-engineer workflows and processes?

Rapid response is critical. "HCOs that have already begun to consider system replacement are under severe time constraints," says Shane Pilcher, vice president of Stoltenberg Consulting. "Each day an HCO spends with a low-performing EMR system represents wasted resources, cost overruns and, most important, lost opportunities in achieving strategic goals."

Looking In/Looking Out for EMR Performance Insights

Rather than relying on a time-consuming do-it-yourself approach, HCOs may want to retain an external consultant to perform a needs assessment, develop a plan and orchestrate the EMR performance evaluation process. Doing so accelerates evidence-based decision making on the opportunities and constraints of EMR system fixes, upgrades, workflow re-engineering and selection of a new EMR system.

HCOs that identify EMR performance issues early enough may be able to generate comparable results using a part-time consultant. Unfortunately, few HCO IT teams have

the bandwidth and perspective to identify and resolve EMR system issues before genuine crises ensue.

HCOs typically perceive a disconnect between their strategic plan and EMR system functionality. Disappointed by the EMR's negative impact on strategic goals, they wonder if they should rewrite elements of the strategic plan. The problem, however, is not in the HCO's strategic plan, but in the mismatch between system performance and what the HCO hopes to achieve clinically, operationally and financially.

Others may turn to internal resources with the apparent knowledge, skill and experience to identify and repair system inefficiencies and address strategic "big picture" issues. Unfortunately, due to escalating demands on HIT professionals, taking the internal route will likely lead to postponements, delays and ongoing crises due to lack of alignment between HCO strategy and EMR system performance.

A [study by Black Book Rankings](#) released in February found that 17 percent of physician practices are considering switching electronic health record vendors by the end of 2013. It also found that of the physician practices interested in switching EHR vendors:

80 percent said their current EHR system did not meet their needs;

79 percent said they did not adequately assess their own needs before selecting an EHR vendor;

77 percent said the design of their EHR system is not suited for their practice's specialties;

44 percent said their EHR vendor was unresponsive to their needs and requests; and

20 percent said their EHR system did not adequately communicate with other EHRs

A follow-up [report](#) (out July 24, 2013) found that:

81 percent of survey respondents who indicated that they were seeking to replace their current EHR system said they were on track to replace their EHR within the next year; and 11 percent of respondents who indicated that they were seeking to replace their current EHR system said they were unsure of their timeline for adopting a new EHR.

Red Flags Rising

While some HCOs zero in on the gap between strategic objectives and EMR functionality, others witness a crisis brewing in a tidal wave of user complaints—from lack of user friendliness and rapid, easy access, to bare bones system functionality and unmet expectations.

These concerns are troubling given the technology implementation and change management demands of the Affordable Care Act. A 2013 [survey](#) of 300 physicians by Wolters Kluwer revealed their top three challenges: managing shifting reimbursement models with payers (91 percent), financial management (90 percent) and spending time with patients (88 percent).

Vendors are also under pressure. Challenged by developments like the ever-changing reporting requirements of meaningful use and demands for patient portals that interact and engage with patients and families, they find it tough to build EMRs for a still evolving healthcare system—even when they look out only three to five years.

Says Pilcher, "Meaningful use fulfillment is essential, but simply checking a box indicating that patients can now access their health records isn't enough to move an HCO forward strategically. HCOs need EMR systems that provide authentic value to patients and families, promote loyalty and develop the intended level of engagement while delivering on the promises of improved outcomes, population health management and accountable care."

Moving Forward, Balancing Goals

While user complaints may not signal selection of the wrong EMR system, they should function as an early warning system for the HCO. Some complaints may reveal incomplete implementation of system features, while others may indicate gaps in training, support and service.

A 2013 [study](#) of more than 1,800 physicians that appeared in the *Annals of Internal Medicine* offered these findings:

- Eighty percent of physicians with EMRs use them to view lab results.
- Seventy-four percent of physicians use EMRs to order prescriptions electronically, while 67 percent use EMRs to record clinical notes.
- Thirty-four percent of physicians use EMRs to generate lists of patients by demographic characteristics, 31 percent generate quality metrics, and 14 percent provide patients with electronic copies of their health information.

No matter what the findings reveal, the HCO must investigate further to pinpoint which complaints are rooted in lackluster internal processes and which complaints reside in EMR system features and functions. The HCO must also balance the short-term task of complying with government and organizational regulations and requirements, with the long-term goal of enhancing care safety, quality, efficiency and cost, and responding to new and emerging healthcare trends.

The majority of certified EMR systems have the functionality required to achieve Stages 1 and 2 of meaningful use and address other related short-term goals. However, these EMR systems may not be ready to respond to the evolution of health, healthcare and medicine.

"In 2009, providers wanted EHR systems that offered ease in documentation, e-prescribing and results review," says Brown. "Now, providers' demands are increasingly complex thanks to meaningful use, interoperability, connectivity, accountable care and clinical decision support."

Moving Toward Data Driven Healthcare

The HCO must also confront the trend toward data-driven healthcare. Now that the healthcare industry has successfully digitized information, how can it turn that information into intelligence via analytics? Unfortunately, once an HCO realizes that it possesses high-value digitized information, it often learns that its EMR system lacks analytics. Or, it discovers that collected data is unavailable in a format that allows for simple analysis. Or, in a worst-case scenario, the HCO finds out that its EMR system never collected the data in the first place.

In these situations, the HCO must identify and resolve underlying problems. Among the issues: Should the HCO revamp its processes so clinicians can more easily record and capture data? Should it change elements of the EMR system to improve data collection? Can it fix an EMR system that fails to collect data in usable formats through the purchase of third party applications? If the HCO exhausts all of its options and the issue remains unresolved, it may need to consider system replacement.

Evaluating EMR Performance via the HIMSS IT Value Suite

Supporting HCO executives in the process of EMR system evaluation is the Healthcare Information and Management Systems Society's (HIMSS) release of an online collection of data designed to document the value and impact of health information technology (HIT). The [Health IT Value Suite](#) is a library of data organized by levels of evidence that helps the HCO to answer questions like:

- How have clinicians used IT to improve patient care?
- How does IT enhance the patient's experience and engagement?
- How can IT help the HCO reduce costs and improve care quality, safety, efficiency and access?

To document the value of IT, HIMSS collected hundreds of case studies detailing how providers have found value and impact in IT systems. The HIMSS case studies guide HCOs in the innovative use of EMR systems and offer encouragement that, in spite of heavy investments of financial and human resources, value and impact are likely.

"The case studies offer a grading curve so organizations can easily compare one EMR system to another in the process of selection, implementation and evaluation," says Pilcher. "The HIMSS steps and implied questions function as vital tools in the process of EMR system selection. The more the HCO learns about an EMR system prior to purchase, the better it will fare in the ongoing process of system evaluation."

Case studies also offer insight into effective implementation, including how organizations can tweak the EMR system or revamp processes for maximum impact. Finally, the HIMSS cases guide organizations in ongoing EMR system evaluation, helping them discern how the EMR system contributes to achieving strategic goals – from improved safety, efficiency and patient engagement, to data collection, information exchange and financial savings.

HIMSS used the evidence and testimonials offered in the case studies to identify five pathways for achieving IT value. Called the Health IT Value STEPS, they include:

- **Satisfaction:** Patients, providers and staff
- **Clinical Treatment:** Care safety, quality and efficiency
- **Electronic Information and Data:** Evidence based medicine; data sharing and reporting
- **Prevention and patient education**
- **Savings:** Financial, efficiency and operational

An HCO can rely on these steps to evaluate EMR system performance, asking HIMSS-recommended questions such as:

- **Satisfaction:** How well has the EMR system improved communication with patients, satisfaction scores and internal communications?
- **Clinical Treatment:** To what extent has the EMR system improved patient safety and scheduling and reduced medical errors and readmissions?
- **Electronic Information and Data:** How has the EMR system performed on measures like increased use of evidence-based guidelines and population health reporting and improved quality measures reporting?
- **Prevention and Patient Education:** Has the EMR system delivered on improvements in disease surveillance and patient compliance and increased immunizations and longitudinal patient analysis?
- **Savings:** What evidence exists that the EMR system has increased patient volume, improved inventory control and reduced days in accounts receivable, patient wait times and emergency department admissions?

“The HIMSS Health IT Value Suite provides actual evidence of the value of information technology as realized by providers. It is organized according to the Value STEPS™, a framework that categorizes almost 600 case studies now in the library,” says Rod Piechowski, MA, senior director, healthcare information systems, HIMSS. “This compendium includes numerous examples of how IT has improved patient care and reduced costs, which is sought-after information for healthcare providers who are ready to invest in health IT systems and by those looking for ways to maximize the positive impact of the systems they may already have.”

Start at the Beginning

Finding an EMR system that meets an HCO’s strategic goals while fulfilling more immediate needs is a time-consuming process. The more proposals an HCO receives from a variety of EMR vendors, the better its chances of selecting a system that fits its budget, timetable, and short and long-term priorities.

Be wary of high annual maintenance fees, typically offered in spite of deeply discounted applications. Also, be skeptical of vendors’ implementation promises, including assurances that the HCO will need no additional staff or resources to complete the installation. More likely than not, the HCO will need to hire staff to hold onto the vendor’s promised discounts. If the HCO finds itself in the midst of a crisis, it will likely pay a premium to hire already scarce health IT professionals.

The HCO must take a long-term view, calculating how many professionals it will need to maintain the EMR system going forward along with total cost of maintenance fees, upgrades and third-party applications needed to enhance system performance.

The best advice: Rely on colleagues and peer groups to share insights and advice on EMR system selection, implementation and evaluation. Identifying potential unknowns prior to system selection is the best way to prevent problems and cost overruns in EMR system implementation and performance.

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