

"It's not about the box... our implementation at Kaiser Permanente has worked as well as it has because we've focused as much on the human side of the EHR as the hardware side, emphasizing physician and staff readiness, personal care and empathy and changes in work processes as we install computers in patient exam rooms."

Louise Liang, MD,
Kaiser Permanente,
2006 [Leader – KP
HealthConnect™]



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Readiness assessment paves way for advanced clinical systems

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Why is it so tough to make a compelling business case for the success of advanced clinical systems – the kind that require real-time point-of-care data entry by care providers? Part of the reason is that the technology is often selected, configured, and implemented without adequate consideration of the organization's needs. In considering a clinical information system, providers must juggle the conflicting priorities of patient care, safety, quality, and cost. Likewise, the interests of physicians and the hospital need to be aligned. Engaging expert assistance in undertaking a proper readiness assessment during the planning process will help address these issues and promote a successful outcome.

Two critical aspects of advanced clinical systems

Advanced clinical systems can be categorized as active or passive, based on the intensity of interaction required of the clinician. A computerized physician order entry (CPOE) system is a good example of the more active type, demanding a great deal of active physician interaction, while an electronic medical record (EMR) is an example of the more passive type, typically requiring only the passive review of the contents of the patient record. In addition, different advanced clinical systems require varying levels of involvement from different types of health care professionals. For example, CPOE and PACS require interaction primarily from physicians whereas electronic order entry requires interaction from unit assistants and nurses. This combination of intensity of interaction and type of provider input dictates much of the complexity burden of advanced clinical systems.

What is readiness?

We define the state of readiness as having the necessary underlying foundation required in an organization to enable it to successfully adopt and effectively utilize an advanced clinical system. A readiness assessment evaluates an organization before it chooses a new system (under the best of circumstances) to identify potential issues, attitudes, behaviors, and expectations that will affect the organization's ability to adopt and effectively utilize a clinical information system. A comprehensive assessment requires the examination of the provider's existing business systems and work processes. The most important aspects of the assessment transcend the legacy information systems to include the organization's culture and environment.

What areas of readiness need review?

Among the factors that should be addressed in determining readiness are



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considerations relating to cost, technology, infrastructure, project management, governance, organizational structure, and organizational culture.

What are the benefits of a readiness assessment?

A readiness assessment evaluates current activity and operations that affect or might affect the implementation and use of an advanced clinical system. The assessment contributes to the selection and implementation of an advanced clinical system and sets the stage for ongoing management by providing insights useful in:

- ❖ Comparing vendor product offerings
- ❖ Looking for a good fit
- ❖ Determining the need to revamp existing work processes
- ❖ Managing the gaps

Comparing vendor product offerings

Armed with an understanding of its readiness, an organization can develop a short list of qualifying vendors and compare their product offerings. In this phase, the functionality, technology, support, and costs of the competing advanced clinical systems are evaluated based on professional consultants' experience and national benchmarks.

Looking for a good fit

This activity determines the products that best fit with the organization as it currently exists, and identifies areas where the organization should make significant changes in order to adopt a candidate system. For example, if a system has an integrated financial system, the organization would have to convert its financial systems as well as adopt the clinical system. This may be desirable, acceptable, or potentially disruptive to the organization.

A gap analysis should also be conducted to find out what *cannot* be achieved with a purchase of the short-listed vendors' systems.

Determining the need to revamp existing work processes

The gap analysis should spark discussion of the degree to which the provider is interested in modifying existing underlying processes to accommodate the new advanced clinical system. The project may include additional assistance in transforming the work processes.

Managing the gap

After a system has been selected, a provider armed with a knowledge of the gaps in readiness and the particular needs of the preferred system can then manage issues related, and in proportion, to the readiness disparity. For example, if the organization is not strong in communicating change to clinicians, improved communications can be instituted as part of the project and sustained after implementation.

Summary

A readiness assessment provides a framework for understanding and dealing with the changes within an organization that are required in the adoption of an advanced clinical system. Understanding an organization's strengths, weaknesses, opportunities and liabilities that affect an implementation and subsequent organizational performance can increase the likelihood of a successful project. The assessment can narrow the search to vendors and products which are consistent with the organization, highlight challenges and opportunities for change, and guide the organization in issues of implementation that are of greatest potential benefit.



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-- What's new in the literature? --

KP HealthConnect™ links regions

Kaiser Permanente began a 4-year implementation process in 2003 that will eventually link all facilities in all regions to a common system handling scheduling, billing, online patient access, and all clinical information. When fully implemented, the system will provide information on over 8 million health plan members and be accessible to some 12,000 physicians. In making this \$3.2 billion investment, Kaiser Permanente hopes to enable clinicians to change work processes and improve patient care.

Sources:

Kaiser Permanente: *In-Depth Focus: Kaiser Permanente HealthConnect.*

Full text free here: http://ckp.kp.org/kpindepth/archive/indepth_faq_all.html

Kaiser Permanente: A Focus on KP HealthConnect. *Permanente Journal*, Fall 2004; special journal supplement. Full text free here: <http://xnet.kp.org/permanentejournal/fall04/Supplement.pdf>

How to assess readiness for CPOE

A statewide initiative to implement computerized physician order entry systems in all Massachusetts hospitals prompted the preparation of this handbook to help hospitals assess their readiness to install CPOE. This clearly-written guide includes an itemized to-do list for major tasks and subtasks. The importance of careful consideration of how CPOE will affect work processes is noted – “*Conventional wisdom from CPOE early adopters is that the work is only 20 percent technology and 80 percent change management and work flow.*”

Source: Massachusetts Technology Collaborative: *Massachusetts Hospital CPOE Initiative: CPOE Readiness Roadmap Guide*, October 2005.

Full text free here: <http://www.mtpc.org/institute/health/cpoe/Roadmap.pdf>

Workflow key to CPOE and EHR

Although computerized physician order entry has not been implemented widely, it remains a promising tool. At **Arnot Ogden Medical Center** (Elmira, NY, 256 beds), CPOE has been offered to physicians in a way that allows them to choose their participation level. In just one year, medication orders via CPOE more than doubled. The importance of considering workflow issues in the implementation of CPOE and electronic health records is discussed.

Source: Martin G: Computerized physician order entry is as important as ever, despite the attention being given to EHRs and RHIOs. *Healthcare Informatics*, May 2006; 23(5).

Full text free here: <http://healthcare-informatics.com/issues/2006/05/48/>

HIT dashboard maps US projects

Over 500 private and governmental health information technology initiatives, including regional health information organizations (RHIOs) are mapped on this website. The map begins at the national level but allows the user to drill down to brief descriptive information about specific HIT projects. Full contact information and a link to the website are given for the projects.

Source: University of Maryland Robert H. Smith School of Business and Healthcare Information and Management Systems Society: *HIT Dashboard*, 2006.

Full text free here: <http://www.hitdashboard.com/>

Building web portals for patients

Hospitals and health plans are developing online systems to allow patients to



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Note: All links to Internet sites included in this issue were active as of May 28, 2006.

access their records via the web. One example of a portal currently up and running is that of **CareGroup Healthcare System**, a five-hospital system in the Boston area. CareGroup's *PatientSite* allows patients to make appointments, get prescription renewals, e-mail physicians, access lab test results, and view financial account details. In a typical month, 4 percent of the 1 million CareGroup patients use the online portal.

Sources:

Raths D: Gateway to success. *Healthcare Informatics*, April 2006;23(4):30+.

Full text free here: <http://www.healthcare-informatics.com/issues/2006/04/30/>

View PatientSite demo here: <https://www.patientsite.org/psframe.asp?pg=myhealth.asp>

AHIC: What's the EHR group up to?

The **American Health Information Community** is a federal commission with a two-year charter to help advance the nation toward implementation of electronic health records. Materials from the AHIC workgroup meetings are available on the web. In presentations at the May 16, 2006 meeting, the electronic health records workgroup noted that less than 20 percent of physicians have adopted EHRs. Among the significant barriers to adoption are the cost of the EHR system and of custom interfaces needed to link to laboratory information systems. The workgroup will develop a workplan to improve the information flow of lab data.

Source: American Health Information Community: *The Community*. Washington, DC: AHIC, May 16, 2006. Full text free here: <http://www.hhs.gov/healthit/documents/AHICPresentations051606.pdf>

Medical groups implement EMR

About 18 percent of physicians use an electronic medical record, but this figure is expected to increase as the systems become easier to install and use. Choosing the right system is challenging and preparation for installation can sometimes begin several years in advance. The approaches taken by several medical practices, large and small, are reviewed in this cover story.

Source: As Easy as EMR. *Health Management Technology*, May 2006;27(5).

Full text free here: http://www.healthmgttech.com/archives/0506/0506as_easy.htm

Choosing EHR for a small practice

A structured approach for selecting an electronic health record for a small medical practice is detailed in this article. Implementation can take up to a year and a half for a solo practitioner and incrementally longer for larger practices. The steps include establishing a strategic plan, analyzing workflow, considering interfaces with other systems, selecting a vendor, and making site visits.

Source: Columbus S: Small practice, big decision: selecting an EHR system for small physician practices. *Journal of AHIMA*, May 2006;77(5):pp 42-46.

Full text free here:

http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_031357.hcsp?dDocName=bok1_031357

Challenges of implementing PDAs

The **University of Texas M.D. Anderson Cancer Center** (Houston) is implementing a \$1.5 million PDA dictation and charge capture application in a phased approach that will eventually reach 450 clinicians. The roll-out to about one-fourth of the staff has taken 18 months so far. Although early results indicate benefits associated with saving physicians' time and improved charge capture, there have also been significant challenges associated with requiring physicians to learn to use ICD-9 and CPT codes.

Source: Cross MA: PDAs chase workflow improvements. *Health Data Management*, May 2006.

Full text free here: <http://www.healthdatamanagement.com/html/current/CurrentIssueStory.cfm?articleId=13358>