

# Integrate or interface?

## Medical centers face key choice in EHR strategy

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Creating a universal electronic health record (EHR) is one approach suggested for strengthening the quality of the U.S. health care system and reducing the cost of services.

Neither the idea nor the widespread support it enjoys is new. For more than a decade, the health care industry has been moving to adopt a paperless, data-driven approach in which information is easily shared among patients, provider groups, payers and government entities.

### Getting to the seamless EHR

Technology finally is catching up with the vision. The tactical clinical applications of the electronic medical record (EMR)\* are increasingly linked within and across organizations and communities to enable the broad strategic connectivity with the electronic health record (EHR).\*\*

As the technology has improved, external pressure to move toward a seamless EHR has increased. Seamless refers to interoperability — the ability to support data exchange with other sources of health information, such as practice management systems.

Leading provider organizations increasingly use their EHR capabilities as a competitive advantage in the marketplace. The government offers incentives and development support for implementing the EMR and EHR in a wide range of ways. Health care payers are pushing for improved connectivity to gain access to the clinical data required to support pay-for-performance ini-



-tiatives. Vendors, as well, are looking at creative ways to help organizations pay for the technology.

As a result, provider groups are racing to develop and implement long-term, comprehensive strategies based on EHR capabilities. Academic medical centers are leaders in this effort because of their relatively deep pockets and the complexity and breadth of their operational requirements.

### Choosing a path

Organizations must select an EHR strategy that will best meet their clinical requirements and fit their financial, cultural and political environments.

At present, most academic medical centers and other large provider organizations are moving down one of two roads: an integrated EHR and practice management solution with a single vendor, common user interface and central database; or an interfaced solution that combines proven clinical and practice management applications — each with their own operating system and data repository — linked to provide a seamless network across the enterprise.

Each approach presents benefits and

drawbacks. Understanding these issues within the context of the organization's requirements and capabilities is the key to choosing the most appropriate long-term strategy.

### The integrated EHR

The integrated EHR approach provides a number of benefits. Accountability and responsibility lie with a single vendor. Hence, support issues can be readily addressed. Single-vendor systems typically are less expensive to maintain. A single database avoids the problem of duplicate data entry. Enterprise-wide reporting is greatly simplified. A uniform interface and single database also make remote access easier.

On the downside, health care organizations that make major investments in a single vendor effectively become married to the vendor's vision of the health care information technology landscape. Thus, they risk betting on the wrong horse.

Moreover, a shift to a single vendor can lead to the replacement of effective stand-alone applications with modules that may lack sufficient functionality. This kind of forced change can be particularly perilous

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when the application involves critical services like coding and billing. Along the same lines, employees must be retrained, with the attendant fall-off in productivity and costs in money and time.

### “Best-of-breed” applications

An interfaced approach minimizes the risks of pulling the plug on a dependable application. Indeed, so-called “best-of-breed” solutions are often better suited to an individual user’s functional requirements. This can be a particular concern for clinicians. Moreover, an installed base of such applications reduces or eliminates the challenges of change management.

However, long-term costs of maintaining multiple, best-of-breed solutions can quickly mount, particularly when upgrades in one or more applications requires interface maintenance across the entire network. Even with the best of interfaces, the likelihood of unreliable or lost communication between entities and systems typically is greater than with a common platform.

Accountability can also be a problem,

given the diversity of vendors and unanticipated, cascading network issues that changes in one solution can cause.

Finally, an EHR that depends heavily on several smaller vendors is vulnerable to a rapidly changing marketplace and the possible acquisition or extinction of a favored company.

Beyond conducting a detailed cost-benefit analysis, deciding whether to pursue an integrated or interfaced EHR approach involves a multitude of questions regarding shared costs, overall system responsibility and culture. Political considerations also are important, particularly when the system is to be used both by an academic hospital and its physician organizations.

### For clinicians, by clinicians

Because the EHR strategy is a critical element in the performance of the organization, it can affect the entire information technology (IT) strategy. Clinical leaders must be involved early in the EHR selection process. They must work with IT leadership if the ultimate implementation is to have any chance of successful adoption. Including influential physicians, nurses and other key clinicians

during the selection process can strengthen the efficacy of the solution and set the stage for support, if not genuine enthusiasm, for the new technology from rank-and-file employees.

The many challenges surrounding the development of an EHR strategy — minimizing risks, maximizing opportunities, controlling costs, reducing disruption and creating a system that will stand the test of time — can be daunting. Organizations may want to consider a consulting firm for guidance. In all cases, a systematic approach that harnesses intellectual capabilities across the organization, weighing both costs and benefits of integration vs. interfacing, and maintaining a focus on the clinical value of the system will help academic medical centers move toward a fully functional EHR.

\* EMR, according to the Healthcare Information Management and Systems Society (HIMSS), is a longitudinal electronic record of patient health information produced by encounters in one or more care settings. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports.

\*\* EHR, according to HIMSS, is technology that automates and streamlines the clinician’s workflow. The EHR has the ability to independently generate a complete record of a clinical patient encounter, as well as supporting other care-related activities such as decision support, quality management, and clinical reporting.