



Healthcare technology integration as the prerequisite to successful EHR implementation

Put first things first

Once you've decided to implement or upgrade your electronic health records (EHR) system, you need to start thinking about interoperability as part of your planning for the EHR migration. Otherwise, you put your entire EHR migration at risk. At best, if you treat interoperability as an afterthought, you're likely to end up with multiple silos of unconnected clinical data, which can reduce the quality of patient care. At worst, an inflexible or poorly structured strategy will not only inhibit integration, it may cause your EHR project to fail, as well. A failed integration strategy has the potential to create major EHR and clinical system integration delays—a troubling possibility. A more likely scenario is that the absence of interoperability could inhibit your ability to ensure patient safety if you are unable to offer complete, accurate, current patient records that are accessible to all of your caregivers. Your organization might also be at risk of not receiving full financial reimbursement for patient services because you aren't able to link services with your revenue cycle and can't bill insurance companies in a timely manner. Additionally, if you don't get interoperability right, you could jeopardize your career.¹

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Embrace heterogeneous HIT

As the practice of medicine becomes increasingly specialized, EHR software often lacks required functionality that specialists need to do their jobs effectively and efficiently. Some healthcare organizations have taken an integrated EHR approach, but when that happens, many specialty users—like emergency rooms and pharmacies—become crippled by the confines of an integrated EHR that cannot accommodate their needs.

This clearly indicates that migrating to a new, integrated EHR does not solve all the clinical application needs and requirements of a modern provider. An integrated EHR approach creates huge inefficiencies for doctors in general. A recent Becker's Hospital Review survey found that 54% of respondents said their EHR increased operating costs, while 72% said their EHR lacked the ability to help decrease workloads.²

So, while an integrated EHR approach within healthcare organizations isn't the answer, some may think EHRs help solve interoperability and value-based reimbursement and incentive challenges. Not so. The intent of interoperability is to make data and information found in electronic medical records meaningfully useful to physicians in order to create a system that is based on best treatment protocols for patients. When EHRs can't talk to each other, it completely negates interoperability, and with the shift from volume- to value-based reimbursement, your organization needs interoperability more than ever.

The leading EHR vendors are currently locked in a tug-of-war over whose platform should be adopted throughout the industry, an approach with obvious business benefits to whichever vendor prevails, if a single one does. Some EHR vendors have made an effort to set standards for the exchange of information by setting up the CommonWell Health Alliance

Partnership. This group includes 26 member organizations—except Epic, the vendor with perhaps the largest market share. Epic focuses on trying to make it easier for hospitals using their software to share information with each other. They also offer to connect their system with others—but that service comes with a high price tag.³

To make matters worse, the frequency and severity of EHR implementation cost overruns can sometimes precipitate financial crises severe enough to force a healthcare provider to consider merging with another organization—an organization with a different EHR. In one case, Southcoast Health in southeastern Massachusetts had an EHR cost overrun that pushed the organization from a \$5 million operating surplus to a \$9 million operating loss, despite an increase in total revenue. A proposed merger with Care New England in neighboring Rhode Island might ease the financial pressures, but it could carry a new set of interoperability challenges.⁴

Because of the inevitable need to integrate EHR information, your integration strategy can dictate your organization's quality of care for a decade or more into the future. Technology can either be an enabler or an inhibitor of high-quality care, so organizations need to treat healthcare information technology (HIT) interoperability planning as a top priority.

A vendor-agnostic approach to HIT interoperability is the most likely way to serve patients effectively and give providers wider options for growth in the future. Let's take a look at key priorities for an effective HIT interoperability strategy.

Case study: Wellspan Health



Working effectively with competing labs

Wellspan Health is a five-hospital, non-profit healthcare organization located in central Pennsylvania that uses Infor Cloverleaf for interoperability between its EHR systems, and is moving toward an integrated EHR model with Epic. Cloverleaf allows Wellspan to integrate patient information inside and outside the organization with more than 70 independent physician offices. They also use Cloverleaf with independent physician offices, and it helps them save potentially \$1.6 million in lab revenue when they provide preferred integration over their competitors.



Preserve the flexibility to implement technologies that improve care

Vendor-agnostic HIT interoperability is unquestionably the ideal state for most healthcare organizations. Dozens of technology companies currently compete and innovate in the HIT sector, a number that continues to grow with the progress of technology. A number of general technology companies also compete in that arena, including giants like IBM®, Google™, and General Electric. Lively competition in that market will be the source of healthcare technology innovation for many years to come.

Consolidation among healthcare providers only makes that situation more acute.⁵ Given the prohibitive cost and massive disruption caused by changing EHR systems, an easier path may be for healthcare organizations to continue to operate multiple EHRs, rather than trying to consolidate to one system to achieve conformity. The probability that most HIT vendors will ever consolidate into a single vendor is too small to consider.

Healthcare providers will always need to be ready to implement new technologies from a variety of vendors, and will want to make new systems interoperable with existing systems as quickly, easily, and economically as possible.

At the moment, establishing interoperability between systems in the heterogeneous IT environment that's found in most healthcare organizations presents an ongoing challenge to those organizations.

Align and optimize your HIT capabilities to fit the real-world needs of your practitioners

A wide range of functions contribute to successful patient care. Theoretically, many of those functions are prime candidates for automated collection, analysis, and reporting. However, real world experience to date shows that **practitioners find** that the current crop of EHR products impose massive impediments to effective and efficient patient care, mostly due to cumbersome user interfaces and insufficient means of capturing critical clinical information.⁶ The technology industry thrives on nurturing startups that solve exactly those kinds of pains, especially when there's measurable value involved. As EHR vendors or new competitors start addressing the pains, every healthcare provider stands to gain by being ready to adopt the most responsive system available.

In addition, healthcare providers now implement a widening variety of billing and payment systems, supply systems, care delivery systems, and systems that nurture consumer engagement, all of which work best when tied into a fully-interoperable technology framework. Surveys show that healthcare CIOs now consider it a top priority to optimize their technology portfolios to achieve maximum value.⁷ There will never be a one-size-fits-all solution to accommodate such a wide array of requirements, but technologies for creating interoperability between disparate systems can ensure that each unique unit of the organization has technology that matches its exact requirements.

Prevent undue complexity in the structure of the organization's IT platform

Many HIT vendors tout the theoretical value of their vendor-specific interoperability strategies, but in real-life, the heterogeneous IT environment that exists at most healthcare organizations undercuts that claim. A study by the Healthcare Financial Management Association shows that 88% of Accountable Care Organizations (ACO) experience difficulty integrating data from existing systems.⁸ Vendor-specific interoperability typically leaves an organization stuck with multiple interoperability platforms, all of which require individual attention, maintenance, and cost. Even worse, the complexity of troubleshooting routine problems increases exponentially every time you add another vendor-specific interoperability protocol. When you have a vendor-agnostic interoperability platform, you see improvements in just about every aspect of performance, stability, reliability, and cost. Just find one system that ties everything else together and you're well on the way to an effective interoperability strategy that will support your organization for many years.

Simplify the process of connecting to other organizations

Rapid consolidation in the healthcare industry makes it highly likely that your organization will seek to connect with another organization in the future, whether it's a loose partnership of some kind or a full-fledged acquisition. Some experts see acquisitions as an inevitable feature of today's healthcare industry. "You're either going to be an acquirer or be acquired," says Todd Hollowell, COO of Impact Advisors, a healthcare IT consultancy.⁹ In either scenario, you still need a strategy that yields better patient outcomes and better accountability for your operational processes. If you've already planned and executed an effective interoperability strategy, a large part of your work is already done when the time comes to partner up. If not, you may have to reinvent the wheel and suffer through a protracted trial and error process to establish interoperability after setting up your partnership.

Case study: Hackensack University Medical Center



Hackensack University Medical Center, part of Hackensack University Health Network in New Jersey, is one of the top healthcare providers, nonprofit teaching and research hospitals in the United States. It employs more than 10,000 people, has 775 beds, and was the first organization to participate in the White House Precision Medicine Initiative, an effort to improve patient care,

engagement and empowerment. In the past, patients reported frustration with wait times, filling out the same paperwork multiple times, and data inaccuracies. So they implemented Infor Cloverleaf to orchestrate a common information exchange that integrates information from multiple sources so patients only need to complete health questionnaires once.

Allow for incremental expansion and upgrades to the HIT infrastructure

Your HIT infrastructure will constantly need to evolve, just as your organization evolves. That's why your integration strategy should anticipate future growth of your HIT platform, otherwise your IT systems could hamstring your ability to incorporate new capabilities and respond to new requirements. It's essential that you seek an interoperability platform that makes it easy to grow at a rate your organization can handle.

Minimize the staffing level required to support the integration platform

Many healthcare providers still operate HIT systems designed in an earlier era, when the task of connecting systems required cumbersome, manually built, point-to-point integrations. Not only are those connections problematic and difficult to maintain, they tie up IT staff time and force organizations to keep a larger IT staff on the payroll than they might otherwise need.

Today it's possible to run an HIT interoperability platform simply and economically with only a few IT employees devoted to its upkeep and maintenance. Organizations that adopt Infor Cloverleaf® for integrating multiple healthcare information systems typically support the product with a fraction of the staffing level required to support EHR-based integration platforms. With increasing pressures to implement other IT initiatives and less revenue to pay for those projects, few healthcare providers can afford to tie up excess IT resources with interoperability issues; luckily, that's not necessary.

Fulfill the promise of EHR

An EHR migration or upgrade can massively change the way your healthcare organization works—for better or worse. Your interoperability strategy is the keystone to successful EHR adoption, which is why you should make interoperability plans before plotting out your EHR implementation plan. That approach gives your organization the lowest risk of a failed implementation, and the greatest chance of success that will serve you in the long-term.

In summary

Put integration first

Although EHR implementation tends to draw the most attention and budget from healthcare CIOs, your HIT integration strategy needs to be your first order of business before making choices about your EHR.

For more information, visit the Infor
Cloverleaf Integration Suite page



¹ Zina Moukheiber, "Who Says Chief Information Officers Can't Lose By Choosing Epic?" Forbes, July 11, 2013

² Carrie Pallardy, "43% of physicians yet to overcome productivity issues associated with EHRs & 3 other findings," Becker's Health IT & CIO Review, August 12, 2015

³ Patrick Caldwell, "Epic Fail," Mother Jones, December 2015

⁴ Jessica Bartlett, "Southcoast Health cutting dozens of jobs on heels of expensive IT upgrade," Boston Business Journal, March 30, 2016

⁵ Lynn Dunbrack, "Streamlining Healthcare Business Interactions," IDC Health Insights, December, 2014

⁶ Max Green, "25 quotes that show just how fed up physicians are with EHRs," Becker's Health IT and CIO Review, October 2, 2015

⁷ Max Green and Akanksha Jayanthi, "8 CIO concerns for 2016," Beckers Hospital Review, January 21, 2016

⁸ <http://www.hfma.org>

⁹ Max Green and Akanksha Jayanthi, "8 CIO concerns for 2016," Beckers Hospital Review, January 21, 2016

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641 Avenue of the Americas, New York, NY 10011

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