Why are doctors still waiting for interoperability?

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By Ken Terry

The path to EHR interoperability is no clearer today than it was when medical records began transitioning from paper to digital files. That delay has left physicians frustrated, policymakers baffled and vendors making more promises than progress for better data exchange.

It’s clear there is no one solution, but rather a confluence of issues that can lead to greater interoperability. But that provides little solace to practicing physicians seeking better use of EHRs and greater access to shared patient records.

The national project to make disparate electronic health records (EHRs) interoperable—that is, able to exchange patient information easily with one another—has largely stalled in recent years. As a result, far less clinical data is moving among providers today than policymakers expected in 2009, when the federal government launched its ambitious campaign to incentivize the adoption of EHRs by physicians and hospitals.

“We’ve spent nearly $40 billion on EHRs in the U.S., yet we continue to not have a high level of interoperability and information sharing, and that’s where most of the value of EHRs is derived,” says Janet Marchibroda, MBA, director of the health innovation initiative for the Bipartisan Policy Center, a think tank in Washington, D.C.

Here’s why interoperability remains an elusive goal, what the latest technology offers and what physicians can do in the meantime.
What doctors want

Surveys show that the majority of doctors believe that exchanging health information with other providers could help them deliver better care. But they don’t want to spend time searching for the information; they want it delivered to them.

For example, Kenneth Kubitschek, MD, an internist in Asheville, North Carolina, believes that with true interoperability, anytime something relevant was done for one of his patients anywhere, data about that service would flow automatically into the correct fields in his EHR.

But observers say we’re still a long way from that.

“Even getting information to flow from organization to organization is a big undertaking, and it’s been hard to achieve,” notes Julia Adler-Milstein, Ph.D., an associate professor in the School of Information at the University of Michigan. “There’s a lot more to do to get the right subset of information to the provider at just the right time.”

There is no silver bullet to achieve full interoperability, experts agree, but a major step forward will be the widespread implementation of new apps that can be plugged into EHRs and used to transfer health information.

Meanwhile, some providers will continue to use health information exchange organizations (HIEs) and/or a nationwide secure messaging protocol to trade patient data. Some observers believe that the new app standards will allow patients to download their records from multiple providers in one place so they can give their physicians access to the data.

Experience on the ground

Most primary care physicians see value in having access to more and better health information from other providers. But at present, they say, they often lack timely access to important data from other doctors, labs and imaging centers.

“If health information exchange were done right, it could help everybody,” says internist Savitha Baradwaj, MD, who practices in a large group in Bismarck, North Dakota. “The issue is that it’s not done properly or not done in a timely manner in transferring health information between providers.”
For example, Baradwaj’s EHR has an interface with a local hospital, which uses a different EHR, “but they don’t interface very well all the time,” she says. An emergency department doctor in the hospital can’t view her notes until she signs and closes a patient’s chart, which can take more than a day, and she has difficulty viewing operative reports in the hospital’s system.

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Arthur Sgalia, MD, a solo internist in Hopedale, Massachusetts, says his EHR can’t communicate with his hospital’s system. The hospital faxes him information about admissions and tests, and he faxes back pertinent information about his patients who have been admitted. But the hospitalists in the facility don’t usually see his notes, he says, because it’s not in their EHR workflow.

When Sgalia refers patients to specialists, he says, they usually fax their reports to him, and he scans the faxes into his EHR. But when patients see specialists on their own, he often does not receive their notes. Similarly, Baradwaj says it’s hit or miss whether she gets reports from specialists outside of her group.

Jeffrey Pearson, DO, a primary care physician who practices in San Marcos, California, says that patients frequently go to hospitals other than the one his group uses and that it’s difficult to get information from those facilities.

For instance, he had a patient who went to the ED with a rib fracture, and his staff was unable to get notes from the encounter before he saw the patient in his office. If he could have seen the patient’s X-ray beforehand, he says, “it would have been wonderful.”

When this kind of information is sent, it is most often faxed. But faxes may not reach their intended recipient or be legible. Also, when doctors receive faxes, whether they’re computer-faxed or scanned into the system, the doctor must go to the EHR’s document management
section to view them. If they want to include pieces of information, such as new medications or allergies, in their EHR’s structured fields, they or their staff must enter the data manually.

**Value of information**

Beyond the mechanics of data exchange, the information delivered to doctors is often not very useful. One reason for that is the nature of EHRs themselves, which make it easy to churn out long, computer-generated notes that are hard to search. In addition, physicians say it is very difficult to find the pieces of data they’re looking for in the lengthy clinical summaries—sent in a standard format known as the Consolidated Clinical Data Architecture (CCDA)—that EHRs generate.

A CCDA should be designed so that physicians can easily find the information they need at the point of care, says internist Peter Basch, MD, senior director, health IT quality and safety, research and national health IT policy for MedStar Health in Washington, D.C. But in his own experience, this has not usually been the case. He recalls a patient who had gone to the ED with chest pain and had brought in a 30-page CCDA. Basch couldn’t tell from a quick read whether the patient had been admitted or, if so, what she’d been admitted for.

**Barriers to interoperability**

According to an interoperability “roadmap” that the Office of the National Coordinator of Health IT (ONC) released in 2015, the lack of standardization among EHRs is a major obstacle to interoperability. This challenge is most often addressed, if at all, with interfaces that are expensive and difficult to maintain. Because of the cost, a hospital may not want to pay for an interface with a small practice’s EHR, and a physician group may buy an interface with just one lab if most of its tests are done there.
Physicians can use Direct messaging—a secure method of sending clinical messages over the Internet—to overcome the incompatibility between EHRs. A Direct message, like an email, may include attachments such as CCDA care summaries. All certified EHRs are supposed to be able to send and receive Direct messages.

But according to a 2015 ONC report, some vendors make it difficult to exchange these messages because of how they structure their EHRs. Also, it can be hard to locate a particular doctor’s Direct address because there is no national directory of such addresses. Many doctors are unaware of Direct, and those who use it say that only a small percentage of their colleagues do as well. The number of Direct transactions jumped from 44 million in 2015 to 98 million in 2016, according to DirectTrust, a trade association for Direct messaging service providers, but that’s still a small fraction of what it would be if Direct were in widespread use, experts note.

By comparison, the Epic EHR’s interoperability feature—designed primarily for information exchange among Epic customers—is used to exchange 1.25 million patient records per day, according to a 2016 article in MedCity News. That translates to more than 450 million records per year.

David Blumenthal, MD, president of the Commonwealth Fund and a former national coordinator of health IT, says that Direct is too difficult for many doctors to use, partly because of the directory problem. This kind of messaging has to be as automatic as email to become widespread, he says.

Health information exchanges

Health information exchanges (HIEs), regional or statewide nonprofit organizations that act as conduits for data exchange, were once seen as the great hope for interoperability. ONC spent $564 million in HITECH funds to help create statewide HIEs, and many regional HIEs also received government grants as seed money.
However, the vast majority of these organizations never found a sustainable business model. In fact, the number of operational public HIEs declined from 119 in 2012 to 106 in 2016, and only half of these HIEs reported that they were financially viable.

“HIEs fail most commonly because they have a lack of cooperation and financial support from providers and states,” Blumenthal notes. “Even when states support them, providers often fail to participate in HIEs.”

Nevertheless, some HIEs have made health information exchange routine and effective, says Blumenthal. He cites HIEs in Delaware, Maryland, Indianapolis, and the upper Hudson River Valley in New York. The HIEs that are thriving, says Milstein, have garnered support from local hospitals and other providers by offering value-added features like data analytics and quality reporting.

Some successful HIEs have focused on addressing providers’ specific business needs. For example, Basch notes, a Maryland HIE sends alerts from the state drug monitoring database into his EHR, so he doesn’t have to go on the state website to look up the information. But these HIEs are few and far between, experts say.

Many physicians have used HIEs purely to meet the data exchange requirements of meaningful use. Blackmon, for example, says he has exchanged some notes with a local gastroenterology practice via an HIE specifically for that reason.

**Information blocking**

Some EHR vendors and providers have financial incentives for impeding the exchange of data. In 2015, ONC released a report on anecdotal evidence of “information blocking” in the healthcare industry. Partly because of this report, Congress banned information blocking in the 21st Century Cures Act, which became law in December 2016. By the end of 2017, the U.S. Department of Health and Human Services (HHS) must require EHR vendors to attest they do not engage in information blocking.
Meanwhile, however, these practices remain a significant barrier to health information exchange. A recent survey of HIE officials published in *Milbank Quarterly* found that half of them had observed routine information blocking tactics by vendors, such as deployment of products with limited interoperability and high fees for health information exchange. More than a quarter of the HIE executives had seen hospitals and health systems coerce providers to adopt particular EHR or HIE technology or control patient flow by selectively sharing patient health information with other providers.

The main motivations for EHR developers were short-term profit and a desire to lock in customers. Hospitals and health systems obstructed data exchange to control referrals and to enhance their competitive position in the market, the study found. Blumenthal blames a “market failure” to create incentives for hospitals and practices to exchange information beyond what’s required for meaningful use. The shift from fee-for-service to value-based reimbursement, which requires better care coordination, might produce different incentives; but he thinks that will happen only when most providers take significant financial risk for the cost of care.

Some doctors are not convinced that interoperability or improved health information exchange is even necessary. “Interoperability doesn’t help anything,” declares Blackmon. “In fact, it probably retards care, at least in my experience.”

Rather than send referrals and notes electronically, for instance, he’d rather just call a specialist and explain why he’s referring a patient. Similarly, he’s satisfied with a faxed report from the consultant.

In contrast, Pearson wants more interoperability so he can deliver better care.
“If there were a way to make it so doctors could see everything about the patients they’re caring for,” he says, “that would make our lives incredibly better.”