# Seeking the United State of HIEs: Connecting Information exchange Efforts Is ONC's Next Challenge



By Chris Dimick

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*The federal government has been actively encouraging health information exchange through direct grants and leadership. However, its challenge now is keeping focused and getting the multiple efforts aligned.*

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The Office of the National Coordinator for Health IT is attempting to do in a few years what the private sector has not achieved in decades-create a wide network of healthcare providers exchanging patient information through electronic health records (EHRs).

It is a daunting task, but one that ONC has seen significant progress on since the American Recovery and Reinvestment Act of 2009 named EHR adoption and health information exchange (HIE) a priority. ONC and the Department of Health and Human Services have distributed hundreds of millions of dollars through targeted programs intended to foster EHR implementation and the advancement of state-level HIEs.

But in the push to spur EHR adoption, some say ONC's focus on HIE has waned. While ambitious programs like the Regional Extension Center program and the meaningful use EHR incentive program give providers technical and financial support for EHR adoption, similar efforts to develop HIEs have been slower to develop.

In December the President's Council of Advisors on Science and Technology (PCAST) noted as much, stating in a report that evaluated ONC's efforts that more work was needed to foster health information exchange.

"In analyzing the path forward, we conclude that achievement of the President's goals requires significantly accelerated progress toward the robust exchange of health information," the report states. If progress in information exchange lags too far behind EHR adoption, the authors warned, the result could be a lot of new EHRs that do not connect to each other.

"I get the sense that the federal government was really focused on the electronic health record and may have taken their eye a little bit off the HIE initiative, hoping and relying on the EHR and HIE communities to fill in the gaps when it comes to interoperability," says Jonah Frohlich, managing director of healthcare consulting at the law firm Manatt Health Solutions. Frohlich is the former deputy secretary of health IT at the California Health and Human Services Agency and has worked extensively on HIE issues.

There are a score of HIE projects under way at the local, state, and federal levels. But whether the efforts are aligned and heading toward a big leap in the interoperable exchange of health information across the country-ONC's ultimate goal-is unclear.

## The State of HIE

ONC, for its part, believes that they are. However, the office does acknowledge that much work remains to be done, and it notes that the "robust exchange of health information" cited in the PCAST report has inherent challenges that make it tougher to tackle than EHR adoption.

In fact, a "whole host of challenges" face ONC, says Doug Fridsma, director of the Office of Standards and Interoperability at ONC.

One is that providers are at very different levels of health IT sophistication. Small physician practices are struggling to meet the objectives in the meaningful use EHR incentive program, which in the initial stage is intentionally light on information exchange requirements. Many larger organizations, meanwhile, are ready for advanced goals, including health information exchange. This makes it difficult for ONC to push the industry forward in a coordinated way.

Further, HIEs by nature are complex structures with many players. While the promotion of EHRs can be directed and funded by one federal agency, HIE development requires an additional local and regional presence. Aligning HIE efforts and smoothing out state laws requires cooperation at the local, state, and federal level.

The value of HIE can be a harder sell than EHR implementation, too. The federal EHR incentive program rewards adopters with bonus Medicare and Medicaid payments, and it created more than 60 regional extension centers to help providers get started. The benefit of implementing an EHR is clear-cut.

The direct benefits of HIE are less obvious. HIEs are still struggling to find long-term sustainability, and they require local healthcare organizations, often competitors, to work together in a fledgling venture.

Despite these difficulties-or perhaps because of them-Fridsma says ONC recognizes that it is in the best position to coordinate HIE efforts and make information exchange available to all providers.

## Four Major HIE Projects

There are four major HIE initiatives currently unfolding nationally.

**The Direct Project**, developed by ONC, created standards and specifications for simple information exchange between providers via secure e-mail. The project launched its first pilot sites in early 2011, with the expectation it will be available for mass use in 2012. Direct was created by ONC in part to help providers meet the basic HIE requirements called for in the stage 1 meaningful use EHR incentive program.

**The Nationwide Health Information Network (NwHIN) Exchange** is a project developed years before ARRA by the federal government. Like Direct, NwHIN is a set of openly available protocols that lays out standards, services, and policies for secure health information exchange via the Internet.

Though initially used only by government contractors, recently the exchange platform was expanded to select private healthcare organizations. The larger goal is to allow providers to use Direct for simple "push" exchanges, and the NwHIN standards for complex exchanges, such as those that require looking up a provider to exchange complex health information data-likely through an HIE.

**The State HIE Cooperative Agreement Program** was launched by ONC in March 2010 and has awarded $547 million to 56 states and territories to develop state-level HIEs. These state-level HIEs are designed to either coordinate local HIEs or serve as the main HIE for an area. Interstate exchange between state-level HIEs is a long-term goal.

**Private HIE efforts** have also launched, looking to capitalize on the slow development but high potential. In July 2010, for example, telecom giant Verizon launched the Verizon Health Information Exchange. The system can be used to store, manage, and transfer health records within one's own enterprise, community, state, or country, according to Verizon.

### An Early Look at Direct

While Direct is not expected to be widely available until 2012, how providers will use it is taking shape. Direct Project coordinator Arien Malec gave a brief overview during a National eHealth Collaborative webinar in March.

Providers will not require special software or hardware to use Direct, Malec said. Exchanging information will be similar to sending an e-mail.

To get started, a physician would contract with a health information service provider (HISP), such as a local HIE that is offering Direct as one of its exchange services. Large healthcare organizations could also function as HISPs, facilitating Direct exchange both within their organizations and with Direct-enabled providers outside their network. The Direct Project maintains a list of HISPs on its Web site, http://directproject.org.

Once the physician contracts with the HISP, the HISP will assign the physician a Direct e-mail address. To access the Direct service, the physician will log on to the HISP's Direct gateway via the Internet.

Physicians with a Direct e-mail address can send information securely to any other provider with a Direct e-mail address-for example, a referring physician could e-mail a patient referral to a specialist.

Information may be sent only to users with a Direct e-mail address. Thus the sending physician would have to know the receiving physician's Direct e-mail address. Individual HISPs, or perhaps ONC, may also develop a directory of Direct users.

Physicians do not need an EHR to use Direct, said Gary Christensen during the webinar. Christensen, COO and CIO of Direct pilot site Rhode Island Quality Institute, stressed that to use Direct physicians required only acomputer and an Internet connection.

However, EHR vendors are developing products that will come Direct-ready, enabling providers to send structured health information directly from their EHRs using Continuity of Care Document standards.

## Will the Fed and the States Connect?

Though further development of these HIE efforts could lead to interoperable health information exchange, they are not developing with a clear connection to each other, Frohlich says.

A big question is how the state-level HIEs will connect with federal ONC-led efforts like the Direct Project and NwHIN.

Several HIEs have been pilot-testing Direct Project specifications with the expectation they will eventually implement Direct into their suite of HIE offerings. As the NwHIN Exchange expands, many expect state-level HIEs to use those standards and specifications to exchange information as well, including exchange among individual state HIEs.

In the State HIE Cooperative Agreement Program, ONC has strongly encouraged the various state-level HIE developers to implement Direct and NwHIN Exchange protocols and standards into their HIE models, according to Claudia Williams, director of the state HIE program at ONC. This will better allow intrastate information exchange, as well as exchange between other state HIEs.

HIEs in the cooperative agreement program have also been asked to develop a system that helps providers achieve stage 1 meaningful use.

Although the final State HIE Cooperative Agreement Program grants were announced in March 2010, 17 of 56 state-level HIEs had yet to receive full funding as of March 2011. This is because ONC must finalize its strategic and operational plans before issuing the entire grant funding. The first grant installment was for planning, the second for development.

The process for handing out the full grants has been slowed because ONC did not want to develop one standard program for all state-level HIEs to follow. States have different laws and requirements that affect an HIE's success. Therefore, ONC allowed each state to formulate a strategy it felt would lead to the greatest HIE success, Williams says.

Some states, like Delaware and Vermont, are developing state-level HIEs that act as a one-stop spot for all information exchange in the state. Though this works for smaller states, the model is not appropriate for larger states like California that already have several regional health information exchange organizations in place.

California's state-level HIE model works as an umbrella coordinator that implements exchange and security standards and offers policy and financial support to the various regional information exchanges.

Several different HIE models have emerged, and services the different state HIEs provide also vary. Forcing HIEs to develop in a certain way would lead to their demise, Williams says. Instead, ONC has allowed the HIEs to identify how they can add value to their healthcare marketplace and institute services specific to their regions.

"It is the job of the HIE grant program [awardee] to look at its own environment and think about how you use these grant resources in the most value-added way," she says. "And that is going to vary from state to state."

Though the approach has slowed down the launch of some HIEs, ONC deserves credit for its extensive work creating plans for each state's environment, Frohlich says.

It is up to the state-level HIEs to decide to implement Direct and NwHIN Exchange standards.

CareSpark, an HIE serving northeastern Tennessee and southwestern Virginia, is testing Direct in the exchange of mammography orders and test results between the local Veterans Affairs facility and private sector providers.

If the pilot is successful, CareSpark expects to add Direct into its suite of HIE services, according to Susan Torzewski, RHIA, CareSpark's EMPI administrator.

Direct shouldn't be seen as a competitor to an HIE, Torzewski says. Even providers who use Direct will still need HIEs to facilitate more advanced exchanges.

Whether Direct arrives in time to help providers meet the first stage of meaningful use objectives is another question. Direct is not expected to be available for widespread use until 2012. The next stage of the program begins in 2013, and it is expected to include requirements for information exchange that are more complex than Direct is intended to provide.

More coordination between the various HIE efforts is needed to speed up HIE development, Frohlich says. If these projects continue along their current trajectories, they will continue to drift apart and hamper their connection into a workable HIE system.

Most state HIEs will leverage Direct and NwHIN specifications even if they are not required to do so, Torzewski says. It is in their best interests to align with the nationally produced specifications to standardize their operations. [For more on CareSpark's pilot of Direct, see the article "Direct Results" *Journal of AHIMA* May 2011; 82:5, 38-41]

## State-Level HIE and Meaningful Use Disconnect

Some critics say that in order for HIEs to even be in a position to offer Direct or NwHIN Exchange, they need solid, long-term support from local providers who would actually use the exchange. The start of this local support network should come in part from participation in the meaningful use program, critics state, which to date has included few requirements that cause providers to use their state HIE to achieve meaningful use requirements and get incentive payments.

"There is too remote of a connection between what is being funded through the state HIE grant program and the meaningful use criteria," says Bill Bernstein, the healthcare division chair at law firm Manatt, Phelps & Phillips. Bernstein counsels numerous states, providers, and companies on healthcare information infrastructure and health IT public policy issues.

As stage 2 meaningful use is developed, some HIE advocates have called on ONC to increase the amount of health information exchange criteria required in the program in order to more directly support state-level HIEs.

Information technology advocacy organization eHealth Initiative (eHI) said in comments submitted to ONC in February that stage 2 meaningful use objectives need an "increased focus on health information exchange."

"eHI supports the ability of eligible providers and hospitals to meet the Meaningful Use requirements through the use of HIE, yet Stage 2 requirements remain focused on electronic health records and do not allow providers enough room to utilize HIE as a means to meet Meaningful Use requirements," eHI wrote.

Millions of dollars are going to be issued to providers for meeting meaningful use targets, and that money should in part ride on a provider's use of the state-level HIEs, Frohlich says. This could be done by allowing providers to achieve meaningful use requirements by directly reporting information through their state-level HIEs.

"If those meaningful use targets are heavily dependent on HIE activities, then what the market would tell you is there will be more attention to purchasing and implementing HIE solutions, which should be born from the HIE cooperative program," Frohlich says. "If the meaningful use criteria are light on HIE and have minimal requirements, in many respects there is not a lot to drive adoption of the HIE services that are being built by these states."

But because state-level HIEs are using different models and offering different services, it would be difficult to require providers to use state-level HIEs as a part of meeting meaningful use, Williams says.

"Saying, 'You must use the HIE'-what does that mean when the [state-level HIE] model in Vermont and the model in Tennessee and the model in Wyoming are totally different?" Williams says. "So I think that we just have to be a little more passive in using these."

Though she would not recommend requiring use of the state-level HIEs, Williams says that all state HIEs should provide services that are useful in meeting meaningful use for both large and small, urban and rural providers. This requirement has been considered when ONC approves state-level HIE models and plans.

Many of the stage 1 meaningful use requirements that involve health information exchange can be done using Direct or other electronic specifications. While many HIEs may choose to include Direct in their offerings, providers may have other options through which to use the service, such as a local hospital. But Direct could serve as a launching pad that shows providers the benefits of exchange and convinces them to use the more complex HIE, Torzewski says.

Meaningful use is moving faster than the state HIE program, which causes some disconnect in the ability of the two programs to meet. It is understandable why ONC has been hesitant to aggressively push HIE on providers-both the providers and the HIEs are not fully ready.

"ONC recognized that if they incorporated too many HIE requirements in stage 1 meaningful use, and they may be right about this, that the market just couldn't handle those requirements," Frohlich says. "There just wasn't enough capacity in the market to deal with 100 percent e-prescribing and lab results delivery and patient visit summary delivery in two or three years."

The lack of HIE promotion by ONC can be corrected in the stage 2 meaningful use requirements, Frohlich says.

"I think they need that, and they recognize that, and they are now trying to catch up," he says.

Because meaningful use funding steps down significantly over the years, now is the time to better tie HIE to the program if the government hopes to entice HIE participation through the promise of incentive payments. This will help get the critical mass of HIE participants that is needed for HIE to provide valuable services to providers.

## A Better Link between Meaningful Use and HIE

Better linking the meaningful use criteria to the state-level HIEs would greatly increase the chance for HIE success, Bernstein says. The healthcare community cannot afford to just let the market figure out how the various HIE pieces fit together.

"Sharing of information across institutional and enterprise lines is not something that people do instinctively, because they have lots of other priorities," Bernstein says. "I think you have to be more directive if you want that to take place. And I don't think that sort of direction has come forward to date."

Providers should be able to meet meaningful use requirements in multiple ways, but state-level HIEs should be in a position to help them.

"The debate right now is it's very, very important in the next stage of meaningful use that these federal investments [in HIE] are actually connected in a real way to the receipt of meaningful use dollars," Bernstein says. "That is probably the single most important policy change, given the construct of where we are right now, that needs to happen."

The PCAST recommendations on changing ONC's HIE strategy are currently being evaluated by ONC's Health IT Policy and Standards Advisory Committees, which are also in charge of drafting criteria for stages 2 and 3 of meaningful use.

The group is working on ways to incorporate PCAST's recommendations into meaningful use and other ONC initiatives, Fridsma says.

Final recommendations on stage 2 meaningful use will be announced this summer, but in a preview of stage 2 issued earlier this year, some of the HIE measures had increased.

For example, in stage 1 providers merely had to perform a test of HIE in order to meet the criterion. The proposed stage 2 recommendation for that same measure, which would take effect in 2013, states providers must "connect to at least three external providers in their primary referral network (but outside their delivery system that uses the same EHR) or establish an ongoing bidirectional connection to at least one health information exchange."

Much of the upcoming health reform agenda, including bolstered quality reporting and pay-for-performance initiatives, will rely on organizations adopting EHRs and participating in HIEs.

Bernstein believes that ONC is up to the challenge of better aligning its efforts around HIE and in turn improving healthcare. But time is running low.

"They realize that they have had to move very fast, and they are taking a breath and are going to recalibrate and hopefully come out with some improved thinking on how to make the pieces all fit," he says.

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**Article citation**:
Dimick, Chris. "Seeking the United State of HIEs: Connecting Information exchange Efforts Is ONC's Next Challenge" *Journal of AHIMA* 82, no.5 (May 2011): 28-32.