

# Exploring 3 Levels of Health Information Exchange, Data Access

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Health information exchanges across the country are boosting interoperability by connecting at the state, regional, and national levels.

Adequate and seamless health information exchange is an evergreen problem in healthcare, the adverse consequences of which are well-documented.

Poor data access can lead to [patient safety](#) issues, delays in [care access](#), and tack on [additional roadblocks](#) to already cumbersome provider workflows.

But according to The Office of the National Coordinator for Health Information Technology (ONC) —and nearly everyone else in healthcare—electronic health information exchange (HIE) allows providers and patients to appropriately access and securely share a patient's vital medical information electronically—improving the speed, quality, safety, and cost of patient care.

HIEs are looking at different ways to boost interoperability between more health organizations. To achieve these goals, health IT developers are broadening the digital footprint at state, regional, and national levels.

## DEVELOPING A STATEWIDE HIE

It took Connecticut numerous tries to establish its HIE, Robert H. Aseltine, PhD, chair of the advisory board for CTHealthLink, said it was a no-brainer for CTHealthLink to [sign on](#) with the statewide HIE, which will take on the name CONNIE.

Statewide HIEs reduce costs and improve care by eliminating the chances of duplicative testing. These statewide networks also link several providers without establishing a connection with each facility and identify health trends.

"With the state putting so many resources and so much effort and planning into this, it would be very difficult to decline," he explained in an interview with *EHRIntelligence*.

"Once the state decided this was the direction they were going in, we were very pleased they chose a mechanism that allows for partnerships. This will allow us to be extremely successful in serving community-based providers and the types of physicians who may not have access to this type of technology based on their practice arrangements."

The HIE leans on a [network-of-networks concept](#). It aims to bridge existing health system networks together with independent hospitals and providers to enhance interoperability within the state.

With its first partner in the fold, the HIE can add more partners and develop long-term [financial plans](#) for sustainability.

"We really are the only functioning HIE in the state of Connecticut," Aseltine said of CTHealthLink. "There have been other efforts to bridge certain facilities and outpatient practices, but not a full-fledged HIE."

Aseltine also noted the HIE would be working on expanding these partnerships with other national exchanges in a way that provides a powerful demonstration of the scale they can achieve together.

"This echoes how important health data exchange is for physicians across the state of Connecticut," Layne Gakos, JD, General Counsel of Connecticut State Medical Society, said to *EHRIntelligence*.

"We're excited to be where we are right now and to be the first one that's up and running. It's taken a lot of work. But it's been rewarding, and we believe it's going to be rewarding moving forward as the state moves forward in developing its HIE."

## BUILDING REGIONAL RELATIONSHIPS

A common issue with interoperability is that there are too many boundaries, making it localized. Some experts contend that HIEs should ease those boundaries to boost interoperability across the state —or even across state lines— for a more regional approach.

A regional HIE is [currently growing](#) in the western part of the country. Colorado Regional Health Information Organization (CORHIO) knew it needed to grow to reach a regional population and develop significant insights on larger populations and geographies.

CORHIO tapped a neighboring HIE, Arizona's Health Current, to achieve this goal.

The two HIEs connect roughly 1,320 healthcare organizations, and the collaboration would significantly boost [interoperability](#) between those organizations in Colorado and Arizona.

The two HIEs then needed to use common technologies and standards to create common services and products.

"The goal of all of this is to build out the infrastructure that we've been building for the last 10 years, and then take them to the next level," said Morgan Honea, CEO of CORHIO.

The two HIEs will ultimately want a technical integration on a single data management platform to achieve these goals, where they migrate their respective technologies into a standard solution. But for right now, CORHIO and Health Current need to quickly integrate key data points to utilize as use cases.

"There are parallel paths that we can go down," Honea said. "Some are more immediate opportunities, and some are going to be long term planning and integration strategies that we're going to have to go through. But without a doubt, one of the primary objectives of this is to create technology commonalities."

While the two data exchanges are still in talks, they prioritize developing a model through entity structure and representative governance to encourage other HIEs to join the movement.

"That's what we're going to be paying close attention to over the next six months with our legal counsel and with the support of some of our peers," Honea added.

"We are trying to develop a model that would be encouraging of other HIE's to join and be comfortable in a model that is fair and equitable in terms of governance, operations, and autonomy. But it focuses on leveraging economies of scale and technology commonalities. That is absolutely a top priority of this effort."

CORHIO is aiming towards the ultimate goal of a nationwide model to further increase interoperability.

## **NATIONWIDE INTEROPERABILITY**

Leveraging existing health IT infrastructure is an essential component of the federal plan to achieve nationwide interoperability and successfully develop a learning health system.

The [eHealth Exchange](#) is a leading example of this plan.

More than 50 percent of the nation's HIEs connect to the eHealth Exchange network. Additionally, 75 percent of all US hospitals, 61 regional or state HIEs, 70,000 medical groups, and over 8,000 pharmacies link to the nationwide exchange. In total, eHealth Exchange accounts for over 120 million patient records.

The eHealth Exchange was formed over a decade ago by the ONC and adopted a federated exchange approach. Policymakers opted to take an open-market and decentralized approach, rather than a required gateway, which would support further innovation.

The eHealth Exchange utilizes the InterSystems platform integrated with eHealth Exchange's FHIR healthcare directory based on the hub model.

The hub will make it significantly easier for organizations to connect, using a "connect once" model to reach any other member in the network. This method will facilitate streamlined access to patient records at lowered costs.

The new approach will also help organizations prepare for regulatory changes, such as the interoperability rule and the [Trust Exchange Framework and Common Agreement](#) (TEFCA).

In late 2019, eHealth Exchange [implemented](#) Carequality into the health information network to support additional exchange methods and to provide a standard gateway for all participants.

Carequality helps members reduce information exchange expenses, accelerate the implementation of innovative capabilities, and further expand their national footprint.

With additional large HIEs now connected to the network, the eHealth Exchange can adopt a more centralized health information network approach by providing a common gateway for all participants.

As participants continue to transition to the gateway approach, early adopters of the new architecture expand their focus to complete implementation of the [Carequality Interoperability Framework](#).

The Carequality framework is already in use by more than 600,000 physicians and is home to over 36 million patient records.

While HIE and interoperability problems run rampant throughout the healthcare industry, local HIEs are aiming to alleviate that burden by making strong connections at state, regional, and national levels.