

Avoiding Hazards on the Road to the Health Information Exchange (HIE)

By Mike Meikle

The news in recent weeks has not been “optimal” in regard to the rollout of the Affordable Care Act (ACA) website, Healthcare.gov. We read and hear stories of a multiplicity of technology failures with a development price tag that rises to nearly \$700 million.

However, when you look under the hood of what the Federal Health Insurance you can see why this has been such a difficult undertaking. The system collects and sends data to multiple interconnected systems every time an enrollee attempts to comparison shop for coverage. Multiple federal and state systems swap data back and forth, with the results are being displayed for the user.

This architecture is very similar in design to Health Information Exchanges (HIE or HIX). In this article we'll briefly touch on what a provider should know about HIEs at the local, state and federal levels.

Why is this topic so important? In the scale of software development and database integration, few projects like the Nationwide Health Information Network (NwHIN) have been so sweeping in scope; no matter the industry.

One facet that defines this massive effort is the dollars spent. The Affordable Care Act (ACA) mandates (Meaningful Use) that healthcare providers shift to Electronic Medical Records (EMR). Without EMRs, a NwHIN would not be possible. In order to facilitate this, the Federal government has doled out \$12.6 billion in subsidies to providers since 2012. For the first two months of 2013, \$425 million was handed out for EMR Meaningful Use. These large numbers do not take into account the vast sums that will be spent on local, state and federal HIE/HIX promotions, setup and operations (currently estimated at \$5 billion).

Another facet is the business integration effort of such an undertaking. Currently, just for Medicare and Medicaid there are over 50 programs at the state level. Some states have multiple Medicaid programs with many divergent rules on eligibility and reimbursement. When you add in private health plans, both employer and individual, you have a mountain of business process integration.

The technological wrinkles are substantial as well. Hundreds of legacy applications, EMRs, state and federal systems all have either integrated or sent their data in a recognizable format that will eventually end up at NwHIN. When you look at the state of failed Federal IT projects (i.e. FAA¹ and FBI²) that are 1/10 the scope of the NwHIN you can see the herculean effort that is being undertaken.

Project morale also takes a hit when one of the key stakeholders stated “Let’s just make sure it’s not a third-world experience.”³

¹ Cone, Edward. Crash-Landing Ahead?. 1998. <http://www.informationweek.com/664/64iufaa.htm>. Accessed October 8, 2013.

² Greenemeier, Larry. FBI Looks To Redeem Itself With Sentinel After Virtual Case File Snafu. 2006. <http://www.informationweek.com/fbi-looks-to-redeem-itself-with-sentinel/192500844>. Accessed October 8, 2013.

³ Roy, Avik. CMS on Obamacare's Health Insurance Exchanges: 'Let's Just Make Sure It's Not a Third-World Experience'. 2013. <http://www.forbes.com/sites/theapothecary/2013/03/22/cms-on-obamacares-health-insurance-exchanges-lets-just-make-sure-its-not-a-third-world-experience/>. Accessed October 8, 2013.

For all this churn and uncertainty, one thing is for certain, all the money and political capital that has been spent by private and public entities ensures that all these initiatives will move forward, even with the latest ACA employer mandate delays and uncertainty about the Health Insurance Marketplace. So, the healthcare provider is going to have to understand this rocky environment since either their organization will be integrating with a state or private HIE or they will be involved at the governmental HIE projects.

There are four types of exchange models:

- Private: used by a healthcare provider's organization to share patient data to a variety of business associates. These include healthcare clearinghouses (billing), insurers, pharmacies, clinics and primary care physicians.
- Centralized: link multiple healthcare providers in a region. Often private exchanges are joined together at the centralized level.
- Federated: a rollout of private and centralized exchanges at the state level. This is where the NwHIN comes into play. These Federated exchanges are then supposed to plug into the NwHIN which also plugs into multiple Federal agencies. Currently 35 states are relying on the Federal government to provide their State-level (Federated) exchange.
- National (Hybrid): cross between centralized and decentralized architecture. A hybrid model provides the interface engine for which organizational entities in the HIE communicate. "For example, the eHealth Volunteer Initiative in Tennessee uses a system where the data is physically stored and managed in a central location, but the data is logically separated into "vaults" controlled by each organization that contributes data."⁴

HIEs are a very complex and daunting topic that cannot be adequately explained in a short article. However, if you are a healthcare provider, chances are you are exposed to projects based on exchange creation or integration such as EMR/EHR, Meaningful Use and ICD-10.

There are a few of options open for providers to prepare for or participate in HIEs, depending on organizational size. First, create a stand alone private HIE using best practices gleaned from your state's HIE technology framework. Second, find a state or private exchange in which you can participate. Third, delay a decision until state or federal officials mandate a direction.

My recommendation would be to partner with an organization that already has their private or local HIE in production. This reduces out of pocket costs for the organization, plus spreads the business process and technology risks inherent in solo HIE initiative.

For more information on this topic or to answer your questions, please feel free to drop me a line at mmeikle@securehim.com.

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⁴ A HIMSS Guide to Participating in a Health Information. 2009.

Exchange http://www.himss.org/files/HIMSSorg/Content/files/HIE/HIE_GuideWhitePaper.pdf. Accessed October 20, 2013.