Time to Focus on “HIE, the Verb” HIE Industry Moves from Development to Information Transfer

By Julie A. Dooling, RHIA

Health information exchange (HIE) continues to evolve and change, thanks in part to the Office of the National Coordinator for Health IT (ONC), which has been encouraging new ways of exchanging and sharing health information that foster trust, drive efficiencies, and ultimately place the information where it is needed for patient care.

As part of this effort, in 2012 ONC published definitions on the concept of HIE as a verb and the concept of HIE as a noun to help distinguish and clarify between two concepts that consumers and providers refer to as HIE. The definitions are:

- HIE as a Verb: The electronic sharing of health-related information among organizations
- HIE as a Noun: An organization that provides services to enable the electronic sharing of health-related information[1]

These definitions helped move the HIE discussion toward the importance of actually sharing health information-not necessarily an emphasis on where the sharing is taking place. Many feel the healthcare industry should follow ONC’s lead and focus on developing and using transport mechanisms that help strengthen, grow, and expand current boundaries when sharing and exchanging health information.

The Direct Project vs. NwHIN Connect

In December 2012, two transport mechanisms-the Direct Project and CONNECT-were listed in the Exemplar Health Information Exchange Governance Entities Program funding opportunity announcement (FOA) released by ONC. Within the “cooperative agreement,” it states that organization(s) who receive the funding will collaborate with the ONC to “develop and implement policies, interoperability requirements and business practice requirements that will facilitate ‘push’ and/or query-based exchange and address operational challenges that are slowing adoption and use of either model of exchange.” “Push” exchange refers to the ability of providers to send out information to authorized providers. “Pull” exchange adds the ability to pull records from other entities, usually in an automated and simple fashion.

Direct, launched in 2010, was advertised as a “simple, secure, scalable, and standards-based” method of transport. In 2012 this “push” technology was tied to a major change driver, stage 2 of the Centers for Medicare and Medicaid Services’ “meaningful use” EHR Incentive Program, which required use of Direct to transport data as an electronic message. The meaningful use program’s hope is to foster growth of HIE in provider communities with the goal of facilitating care coordination and improving transitions of care. Also in 2012, many federally funded state-level HIEs organized and reorganized to use Direct as a preferred transport mechanism.

The Direct method consists of a standards-based protocol that “pushes” messages from a sender to a receiver and is said to be especially effective in local areas where a simple and trusted exchange mechanism is needed. Direct is not an application or system, but a set of protocols that help use the Internet for direct, solicited, and secure health information exchange. The sharing of information is accomplished using digital certificates for encryption and registration authority to collect information for the purpose of verifying the identity of the individual or organization (also referred to as “identity proofing”). The health information is then transmitted using an e-mail client. Some organizations manage this information by contracting with a health information service provider (HISP), which includes some state-level HIEs. The HISP performs the authentication, encryption, and trust verification on the organization’s or individual’s behalf and creates accounts to store the Direct addresses used to transmit the information. Some vendors have embedded the Direct standard into their solutions, making it possible for the information to be transported between providers (affiliated and unaffiliated) and housed in the organization’s electronic health record (EHR), personal health record (PHR), or HIE. The content can be structured or unstructured and include lab results formatted using HL7 exchange standards, the continuity of care document (CCD), or documents saved in PDF format.

In comparison, CONNECT is a software solution that supports local and national HIE. It consists of three components: Core Services Gateway, Enterprise Service Components, and Universal Client Framework. The overarching solution is the result of a unique information exchange collaboration among federal agencies and coordinated through the Federal Health Architecture (FHA) program. Using nationally recognized interoperable standards, the software can be used to build a HIE within an organization or connect to another health information exchange network. Although developed by the FHA, it is free to download and improvements and additional solutions are openly solicited. CONNECT is fully authorized for use and resale in vendor products, both in the public and private sectors, as a way to promote a harmonization of information exchange standards.

Challenges in Exchange Authorization

CONNECT is unique in that it features a query-based process. Within the query-based process, the patient lookup, also known as the PLU, is performed through the EHR or HIE portal before the continuity of care document (CCD) is retrieved from the list. The CCD is a combination of the consolidated document architecture (CDA) using Health Level Seven (HL7), and the continuity care record (CCR) using the ASTM standard. It is formatted natively in a non-human readable format, XML, and contains a patient summary and core health data sets containing demographic and clinical information. Examples of data contained within a CCD include medications, allergies, problems, and results.

Challenges to this transport method include the need to obtain patient authorizations or patient consent for the release of health information. The Core Services Gateway component of the CONNECT solution includes features for formulating and evaluating authorizations for the release of medical information and honoring consumer preferences for sharing their information. This challenge doesn't exist with Direct, since typically the exchange is performed by a "push" of the information to a requesting physician in a transition of care, or by a patient requesting the information. This challenge is also addressed in the proposed stage 3 meaningful use recommendations. They suggest that in cases where inbound patient query-based exchange is used, the EHR must be able to discern if the patient's authorization is needed before retrieving the patient's records. The proposed rule also states that a list of releaseable documents be presented and that this process be directed by the record-holding institution.[2]

The consent management process within CONNECT has been addressed by the Data Segmentation for Privacy Consent Management Transactions Tiger Team, who recommended that guidance support the technology of consent management to enable finding patient preferences. HIM representation is necessary in HIE implementations to ensure the workflow is pointing to and returning the correct consent document(s) needed to disclose the proper health information.

HIM's Strong Role in HIE

These transport methods call for strong HIM leadership and engagement. Focusing on information governance will assist HIM professionals in the ever-changing HIE environment. It is critical that HIM professionals know, at all times, where patient information is flowing into and out of the organization, and manage consent processes to ensure release of health information is in accordance with patient preferences.

Notes

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