

*HIE*Lights: The Role of Standards in HIE
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November, 2009

Welcome to a new monthly column in *HIE*Lights focused on standards and HIE. We thought it was important to raise the visibility of standards in the HIE discussion. Standards are the primary enabler of successful, cost effective system interoperability. They allow disparate organizations to exchange electronic information without necessarily using the same products or specific technologies. In a 2007 white paper, the HL7 Electronic Health Record Interoperability Workgroup identified over 100 definitions of interoperability from more than sixty organizations.¹ Ultimately, the workgroup defined interoperability as “the ability of two or more systems or components to exchange information and to use the information that has been exchanged.” The workgroup then identified three primary components:

1. Technical interoperability: Relates to the structure and syntax of data flowing between systems, including reliable and secure communications.
2. Semantic interoperability: Relates to preserving the meaning of data from sender to receiver, usually by enforcing agreed-upon code sets and meaning.
3. Process interoperability: Relates to how data is used to support the workflow in organizations, and ensuring that data is properly and consistently used when sent to another organization or program.

Without technical standards data cannot flow reliably from one location to another. But without semantic standards – terminology standards – one cannot ensure that the meaning of the data transmitted will be understood as it was intended. And without standards related to how data is used in practice its meaning may be misapplied or confounded.

In the coming months we will address a variety of issues related to standards, including:

- The evolving national policy framework for standards development and harmonization
- Activities of important standards development and harmonization organizations like HL7, IHE, and HITSP
- Real “standards in use” case studies from HIE projects that demonstrate successful use of standards in practice

¹ Gibbons, Patricia, et al, *Coming to Terms: Scoping Interoperability for Health Care*, Health Level 7 Electronic Health Record Interoperability Work Group, February 2007.
<<http://www.hl7.org/documentcenter/public/wg/ehr/ComingtoTerms2007-03-22.zip>>



Standards in use:

Check out this discussion and identification of standards in the Vermont Health Information Technology Plan: <http://www.vitl.net/interior.php/pid/7> (see Section 6). This legislatively-mandated plan is updated periodically to reflect new developments in standards and serves as a guide to organizations in Vermont related to health information technology and interoperability.