It's Official: HL7's EHR Model Becomes Approved Standard

by Michelle Dougherty, RHIA, CHP

For the past three years, we have been hearing about the development and progress of the Health Level Seven (HL7) electronic health record (EHR) system functional model. As it went through various drafts, HL7's EHR technical committee gathered feedback from a broad group of stakeholders through the balloting process to refine the standard.

In February HL7 announced its passage, the first ANSI-approved standard for functional requirements in an EHR system. The last ballot received approval by 90 percent of the voters, including clinicians, EHR vendors, and others throughout the healthcare community.

What Is the Functional Model?

HL7's functional model is important because it is the first standard to provide both purchasers and vendors with a common description and understanding of an EHR's requirements. These requirements help create and maintain consistent expectations for EHR functionality and products. They also establish a foundation for key advances in EHR system functionality.

The functional model includes 130 functions with more than 1,000 conformance criteria. Functionality is grouped into three main categories:

- **Direct Care**-functionality to support the direct care delivery process
- **Supportive**-functionality that supports administrative and financial processes in care delivery (e.g., transactions, public health reporting, quality improvement, and medical research)
- **Information Infrastructure**-functionality for the technical requirements that support operations and direct care functions

The 130 functions in the standard represent a "superset," a master set of common functions that are not specific to care setting or purpose. This superset is essential in establishing a standard that works across the continuum of care. HL7's next task is creating subsets for individual settings and uses.

Creating Subsets for Care Settings

To address the EHR needs of unique care settings and uses, HL7 is developing individual "profiles" from the standard. The profiles are subsets of functions and conformance criteria tailored to specific settings or purposes. They retain consistency with the standard while providing a mechanism to reflect unique functional needs of a care environment.

There are a number of profiles under development at this time. Stakeholder groups in the following areas are creating and gathering field input on these profiles.

The **legal EHR profile** identifies a subset of functionality that organizations require to maintain a legally sound health record within an EHR system. This profile is unique because it applies to any care setting that is required to maintain a medical record for regulatory, business, or legal purposes. The profile identifies critical functionality to ensure that the EHR can stand as the legal record and ultimately allow organizations to move away from paper.

The **long-term care profile** reflects the many unique mandates and needs of the long-term care setting. The profile will define the requirements and expectations for EHR systems and provide a framework for providers and health IT vendors to work collectively to advance technology in services to the aging.

An **emergency care and disaster planning profile** for emergency department information systems has been developed by the HL7 emergency care special interest group. This profile provides crucial guidance by identifying appropriate functionality; identifying functionality for handling disasters; and providing guidance for operational problems such as overcrowding, ambulance diversions, and service shortages.

The **behavioral health profile** applies to the multiple settings within that environment. The profile will have a variety of benefits including guidance for future product development and a foundation for request-for-proposal development, vendor certification, and payer pay-for-performance criteria.

The **child health profile** identifies the unique functionality important for general child healthcare regardless of setting (i.e., not just a pediatric office). The profile will facilitate vendor adoption of the functionality and assist clinicians in the treatment of children.

A **regulated clinical research profile** will contain a subset of functions to support clinical research. Participants include stakeholders from the pharmaceutical industry, clinical research technology vendors, and EHR vendors, including discussions with applicable US and European regulatory organizations.

Supporting CCHIT Criteria

Another important use of the functional model has been in support of the Certification Commission for Healthcare Information Technology (CCHIT). The commission has been using the draft standard as a framework and tool in the development of EHR product certification criteria.

Profiles provide another important resource as CCHIT branches out and identifies new care settings for future certification efforts. The collaboration between HL7 and CCHIT shows how organizations with different missions can work together toward a common goal of healthcare interoperability.

Broad stakeholder input has refined the functional model into a versatile standard that can be applied across the continuum of care. Its application in certification and profile development demonstrates its adaptability.

AHIMA recognizes the importance of this work in furthering EHR adoption and supports HL7's work to continually refine and update the standard. Donald T. Mon, PhD, FHIMSS, vice president of practice leadership at AHIMA, serves as a cochair of the EHR technical committee, while other association staff serve as work group and project leads for profile development and other activities.

The EHR system functional model standard is available for download from the HL7 Web site at www.hl7.org/ehr. HIM professionals can also help support this standard by participating in work group meetings (in person or by conference call) and voting and commenting on the functional model ballots.

References

Health Level Seven (HL7). "ANSI Essential Requirements." Available online at http://www.hl7.org/documentcenter/public/membership/ANSI%20Essential%20Requirements.doc.

HL7. EHR Technical Committee. Available online at http://www.hl7.org/ehr.

HL7. "HL7 Announces Industry's First Electronic Health Record System (EHR-S) Functional Requirements Standard." February 21, 2007. Press release. Available online at http://www.hl7.org/documentcenter/public/pressreleases/20070221.pdf.

HL7. "Policy and Procedure Manual." Available online at http://www.hl7.org/documentcenter/public/membership/HL7_Policies_and_Procedures_Manual.pdf.

***Michelle Dougherty** (michelle.dougherty@ahima.org) is a practice manager at AHIMA.*

Article citation:
Dougherty, Michelle. "It's Official: HL7's EHR Model Becomes Approved Standard" *Journal of AHIMA* 78, no.5 (May 2007): 56-57.