HL7 announces industry’s first electronic health record system (EHR-S) functional requirements standard

Electronic health record standard will facilitate key advances in electronic health record systems across the continuum of care to enhance quality, safety and efficiency of patient care.

Ann Arbor, Michigan, U.S.A.—February 21, 2007—Health Level Seven (HL7), a preeminent healthcare IT standards development organization with broad international representation, today announced it has passed the healthcare industry’s first ANSI-approved standard that specifies the functional requirements for an electronic health record system (EHR-S).

The standard outlines important features and functions that should be contained in an EHR system. The standard’s Functional Model contains approximately 1,000 conformance criteria across 130 functions, including medication history, problem lists, orders, clinical decision support, and those supporting privacy and security. The function list is described from a user perspective and enables consistent expression of EHR system functionality, while the conformance criteria serves as a reference for purchasers of EHR systems and vendors developing EHR software. “This new standard is a ‘superset’ of functions that enables a standardized description and common understanding of functions, which is necessary when you’re working across care settings,” said Linda Fischetti, EHR Technical Committee Co-Chair. Fischetti adds, “Throughout the development of this standard, the work products have received comment from over a thousand clinicians, EHR vendors, and others across the industry. The EHR TC is grateful for the continued input and attention that the community has provided to this project.”

The EHR-S FM has already proven to be a powerful tool for the Certification Commission for Health Information Technology (CCHIT). “CCHIT congratulates HL7 in achieving formal approval of its EHR System Functional Model standard,” said Mark Leavitt, MD, PhD, chair of CCHIT. “The HL7 standard for EHR systems has been extremely valuable to us, providing the starting framework for CCHIT’s development of certification criteria. CCHIT and HL7 provide a good example of effective collaboration between different organizations, as we all work toward the goal of accelerating the adoption of robust, interoperable health IT.”
Donald Mon, PhD, vice president at the American Health Information Management Association (AHIMA) and HL7 EHR Technical Committee Co-Chair points out that the standard was developed with broad stakeholder input, which has made the EHR-S functional model more versatile, adaptable, and applicable across the continuum of care. “For example, the standard supports key advances in EHR systems, as well as a profile of what EHR systems can look like in a variety of care settings.” Functional profiles that are currently in development include the legal EHR, emergency services, long term care, behavioral health, child health, and regulated clinical research.

HL7 encourages healthcare stakeholders to participate in the development of the profiles that will support specific uses, as well as environments of care. The profiles below are a subset of the Functional Model representing field consensus on which functions would be needed by clinicians using EHR Systems for those special purposes or within those environments of care.

PROFILES UNDER DEVELOPMENT

The EHR-S Functional Model Paves the Way for a Legal EHR

According to Michelle Dougherty, RHIA, CHP, Director of Practice Leadership at AHIMA, who is co-leading the development of the Legal EHR Profile, the EHR-S standard paves the way for additional EHR system standards development efforts and will serve as a framework for the legal EHR. "It is important that the EHR stand as a legal record for business purpose, otherwise it forces the paper record to serve as the legal health record--causing providers’ administrative burden and the additional cost of keeping both paper and electronic records,” said Dougherty. "The EHR-S contains functions that help providers maintain a legal EHR for business, regulatory and accreditation purposes."

EHR-S Standard Provides Critical Foundation for Long-Term Care

The long-term care provider community, serving an estimated 3 million frail and elderly patients annually, is a complex mix of private and public enterprises that are heavily regulated and primarily financed by Medicare and Medicaid programs. This provider community is impacted by rising healthcare costs and other challenges that make it difficult to adopt and advance health information technology.

The HL7 EHR Functional Model provides the critical foundation for the long-term care community to move forward in defining requirements and expectations for EHR systems in this vital component of our nation’s health delivery system. Functionality from the model will be refined, through a consensus process, into a Long-Term Care Functional Profile that reflects the unique mandates and practices of the long-term care setting. This end product will be an invaluable tool as LTC providers and IT vendors work to advance technology that enhances: patient safety; quality of care; efficiency; and continuity of care as patients move between health care settings.
Emergency Care Environments and Disaster Planning Benefit from HL7’s EHR-S Standard

The HL7 Emergency Care Special Interest Group has developed an Emergency Care Functional Profile for Emergency Department Information Systems (EDIS), which has been derived from the HL7 EHR-S Functional Model. This profile is not only critical for the integration of Emergency Departments (ED) into the developing national health information network, but is also needed for handling regional disasters such as Katrina. The standard will facilitate solutions to underlying ED operational problems such as overcrowding, ambulance diversion and shortage of services. The ED care setting was just chosen by CCHIT as a priority for certification of EHRs.

The EHR-S Standard Keys Advancements in HIT for Behavioral Health

A broad range of more than 50 behavioral health stakeholders began work in early 2006 to develop a Behavioral Health Conformance Profile based on the EHR-S Functional Model that could be applied across most behavioral health settings. The Behavioral Health Conformance Profile for EHRs will be used by treatment provider organizations in RFPs when selecting EHR software or in building their own EHRs; EHR software developers to guide their future product development efforts; certification and accreditation organizations to certify EHR software; and healthcare payers as part of their criteria for pay-for-performance and other incentives.

Medical Settings where Children Are Treated to Benefit from EHR Standards

One-third of the U.S. population is children, and more than half of those children visit clinicians in settings other than pediatric offices. The EHR-S Functional Model includes most of the important functionality for general child healthcare, which are also valuable in adult care, including immunization registry communication. As software vendors adopt the model, it will help ensure clinicians in any setting are better equipped to care for children. The Alliance for Pediatric Quality, which includes the American Academy of Pediatrics, The American Board of Pediatrics, Child Health Corporation of America and National Association of Children’s Hospitals and Related Institutions, views the work of HL7 as critical in advancing pediatric applications of technology.

The EHR-S FM Goes Global with Regulated Clinical Research

The EHR Clinical Research Profile team is working towards producing a set of functions and criteria in order for EHR systems to be used as a source of data for clinical research. The EHR/CR Profile team is the first international team working with the HL7 EHR-S Functional Model and includes a European co-leader to facilitate collaboration with European clinical research and healthcare groups. The working group consists of very active participants from the pharmaceutical industry, EHR vendors and clinical research technology vendors, and discussions have been initiated with U.S. Federal Government Agencies (FDA and NIH), and European regulatory organizations and the European EHR certification authority, EuroRec.
About HL7

Founded in 1987, Health Level Seven, Inc. (www.HL7.org) is a not-for-profit, ANSI-accredited standards developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. HL7’s more than 2,400 members represent approximately 500 corporate members, including 90 percent of the largest information systems vendors serving healthcare.

HL7’s endeavors are sponsored, in part, by the support of its benefactors: Accenture; Booz Allen Hamilton, Boston Scientific Corporation, Centers for Disease Control and Prevention; Duke Clinical Research Institute (DCRI); Eclipsys Corporation; Eli Lilly & Company; Epic Systems Corporation; the Food and Drug Administration; GE Healthcare Information Technologies; GlaxoSmithKline; IBM; Intel Corporation; InterSystems Corporation; Kaiser Permanente; McKesson Provider Technologies; Microsoft Corporation; Misys Healthcare Systems; NHS Connecting for Health; NICTIZ National Healthcare; Novartis; Oracle Corporation; Partners Healthcare Systems, Inc.; Pfizer, Inc.; Philips Medical Systems; QuadraMed Corporation; Quest Diagnostics Inc.; Science Applications International Corporation; Siemens Medical Solutions Health Services; Solucient, LLC.; St. Jude Medical; the U.S. Department of Defense, Military Health System; the U.S. Department of Veterans Affairs; and Wyeth Pharmaceuticals.

International affiliates have also been established in 27 countries throughout the globe including Argentina, Australia, Brazil, Canada, China, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, India, Ireland, Italy, Japan, Korea, Mexico, The Netherlands, New Zealand, Spain, Sweden, Switzerland, Taiwan, Turkey, United Kingdom, and Uruguay.

For more information or to download a free copy of the EHR-S FM standard, visit www.HL7.org/EHR
For more Information on regulated clinical research, visit www.eclinicalforum.com
For more information on the Alliance for Pediatric Quality, visit www.kidquality.org

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