The Future of Health Information Technology

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Health Level Seven International (HL7®) is the global authority for standards and interoperability in health information technology.

Health Level Seven® International
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www.HL7.org

Join us in Booth #4420 today for live presentations on HL7 and Meaningful Use, greenCDA® and other HL7 standards.

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The future of health information technology powered by HL7.
From the start, our community of experts and information scientists has been creating solutions for health information data exchange. In 2012 Health Level Seven International (HL7®) celebrates 25 years as the global authority for standards and interoperability in health information technology. With members in more than 50 countries and more than 35 international affiliates, HL7 sets the bar for excellence in HIT standards. The future is in our hands. HL7’s power continues to drive the dynamic potential of technology to meet tomorrow’s health information needs.

HL7 creates the best, most widely used standards in the world.
HL7 members and volunteers work collaboratively with healthcare stakeholders around the world to develop interoperability standards and specifications for electronic health records, personal health records, laboratory data, claims attachments and other initiatives to enhance connectivity in the healthcare system. Our interoperability standards improve care delivery, optimize workflow and enhance the exchange of knowledge among healthcare providers, government agencies, the vendor community, other standards development organizations and patients.

HL7 at HIMSS
Be sure to stop by booth #4420 at HIMSS for live presentations in the HL7 Educational Theater. Learn about the role of HL7 standards in meeting federal meaningful use criteria; explore the latest developments in service-oriented architecture; get up-to-date on the HL7 Clinical Document Architecture (CDA) standard and how the greenCDA Implementation Guide makes CDA easier to implement; and much, much more. Whether you are an HL7 veteran or a relative newcomer, you’ll find programs of interest to you every day at HIMSS.

Plus don’t miss the opportunity to enter our daily drawing for a Kindle Fire and the chance to win raffle prizes after every educational session.

Visit us online at www.HL7.org to learn more about how our standards are changing the face of health information technology.

TUESDAY, FEBRUARY 21
HL7 and Meaningful Use Series:

1:10 – 1:40  HL7 and Meaningful Use
1:50 – 2:20  Version 2 and Electronic Lab Reporting
2:30 – 3:00  Version 2 and Immunization Registries
3:10 – 3:40  Version 2 and Surveillance Reporting
3:50 – 4:20  Clinical Document Architecture (CDA®) and Continuity of Care Document (CCD®) for Patient Summaries
4:30 – 5:00  Electronic Health Record System Functional Model
5:10 – 5:40  HL7 Basic Overview

WEDNESDAY, FEBRUARY 22

9:40 – 10:10  HL7 Basic Overview
10:20 – 10:50  Preparing for the Collection and Use of External Family History & Genetic Test Result Data
11:00 – 11:30  Personal Health Record System Functional Model
11:40 – 12:10  Version 3
12:20 – 12:50  Reference Information Model
2:40 – 3:10  Lab Results Interface – The Flexible Implementation Guide
3:20 – 3:50  greenCDA® and greenCCD®
4:00 – 4:30  Templated CDA and the CDA Consolidation Project
4:40 – 5:10  IHE update: IHE USA Activities in 2011 and Beyond
5:15 – 5:45  HL7 Basic Overview

THURSDAY, FEBRUARY 23

HL7 and Meaningful Use Series:

9:40 – 10:10  HL7 and Meaningful Use
10:20 – 10:50  Version 2 and Electronic Lab Reporting
11:00 – 11:30  Version 2 and Immunization Registries
11:40 – 12:10  Version 2 and Surveillance Reporting
12:20 – 12:50  Clinical Document Architecture (CDA) and Continuity of Care Document (CCD) for Patient Summaries
2:40 – 3:10  The View from the Trenches — What 3,000 Physicians Have Told Us about EHRs and Meaningful Use
3:20 – 3:50  IHTSDO and HL7 – Bringing Standards Together
4:00 – 4:30  A Tour of HL7’s SOA Standards and Their Role in Enterprise Integration
4:40 – 5:10  Version 3
5:15 – 5:45  HL7 Basic Overview

Sessions in red are part of the meaningful use series.
The use of certified EHRs has been mandated in order to receive funding from the Center for Medicare and Medicaid Service (CMS) for the first phase of meaningful use. EHRs must comply with specific HL7 standards for public health reporting and for reporting to immunization registries. Moreover, the Clinical Document Architecture (CDA®) and the Continuity of Care Document (CCD®) have been specified for the exchange of data for clinical summaries. The Office of the National Coordinator for Healthcare IT (ONC) has embraced a collaborative project, supported by HL7, IHE and the Health Story Project, to consolidate specifications and eight CDA implementation guides, first identified by HITSP as C32. In the coming months, additional projects, developed and supported by ONC under the Standards & Interoperability Framework, will streamline the implementation of these and other standards. Much of the functionality required in Phases 2 and 3 may be addressed by CDA. With the introduction of greenCDA®, HL7 is providing increased functionality, lower overhead, shorter development time and greater ease of implementation. For many, this bodes a promising future in the evolution of meaningful use adoption.

Charles Jaffe, MD, PhD: HL7 International Chief Executive Officer

HL7 and Immunization Registries

In the early 1990’s, the Centers for Disease Control (CDC) began sending Susan Abernathy as a representative to HL7 meetings with the express purpose of developing features in the HL7 Version 2 standards to support the electronic communication of immunization registry information (instances of immunization, agent used, etc.) from local and state public health agencies to the CDC. This well-established instance of public health data communications to the CDC has been chosen for Meaningful Use Stage 1 as one of the few required electronic interoperability metrics.

This presentation reviews the effort and the in-place messages and code sets still managed by the CDC today.

John Quinn, FHL7: HL7 International Chief Technical Officer; HL7 Fellow

HL7 and Surveillance Reporting

On July 29, 2010, the US Department of Health and Human Services published a document titled: Part III Department
of Health and Human Services 45 CFR Part 170 Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology; the Final Rule for Meaningful Use Stage 1. This document makes many statements about the use of HL7 Versions 2.3.1 and 2.5.1. These standards are selected because of their very wide-spread use in the US. Today almost every provider receives some or all of their lab results from external (reference) labs through long used HL7 Version 2 interfaces. Specifically, Meaningful Use Stage 1 rules state:

“...implementation specifications for HL7 2.5.1: Public Health Information Network HL7 Version 2.5 Message Structure Specification for National Condition Reporting Final Version 1.0 and the Errata and Clarifications National Notification Message Structural Specification. We believe that these implementation specifications provide the additional clarity commenters were seeking and will enable Complete EHR and EHR Module developers to focus their efforts on a more specific implementation of the HL7 2.5.1 standard. We do not believe that a suitable implementation specification for HL7 2.3.1 exists for the purpose of public health surveillance and reporting.”

This presentation will address these statements and make some suggestions about how these HL7 standards and implementation specifications can be used in meeting the requirements for syndromic surveillance reporting and discuss efforts that have taken place with this use case over the last year.

John Quinn, FHL7: HL7 International Chief Technical Officer; HL7 Fellow

CDA® and CCD® for Patient Summaries
3:50 – 4:20 pm

This presentation will introduce the audience to the HL7 Clinical Document Architecture (CDA) and HL7 Continuity of Care Document (CCD) standards. CDA is an ANSI-accredited standard specification for the representation of clinical documents (such as Discharge Summary, Diagnostic Imaging Report, Operative Report, Progress Note). CDA is an XML-based document markup standard that specifies the structure and semantics of clinical documents for the purpose of exchange. A CDA document is a defined and complete information object that can exist outside of a message, and can include text, images, sounds, and other multimedia content. Just as you can create a document in MS Word or PDF, you can create a clinical document in CDA format. The “A” in “CDA” signifies the ability to constrain CDA to create more specific document types, such as CCD. A CCD document is a CDA document that has been constrained, based on the ASTM CCR data set, specifically for summary documents.

The presentation will also introduce the audience to the latest thinking around CDA and CCD implementation simplification, including greenCCD®.

Bob Dolin, MD, FHL7: Vice Chair, HL7 International; Co-Chair, HL7 Structured Documents Working Group; Co-Editor, HL7 Clinical Document Architecture; HL7 Fellow; President and Chief Medical Officer, Lantana Consulting Group

Electronic Health Record (EHR) System Functional Model
4:30 – 5:00 pm

Release 1.1 of the EHR System Functional Model (EHR-S FM) passed as a joint HL7/ISO international standard in November 2009. Release 2.0 of the EHR-S FM is now out for ballot. This presentation will highlight the numerous enhancements contained in Release 2.0, discuss the value of EHR-S FM to providers, vendors, and other stakeholders, and describe the various ways in which the EHR-S FM has been used in the US and other countries. In addition, differences between the PHR system and the EHR system functional models will also be identified.

Mark G. Janczewski, MD, MPH, Col. USAF (Ret): Specialist Leader (Senior Clinical SME), Federal Systems Integration FHC, Deloitte Consulting LLP; Member, HL7 Electronic Health Records Work Group
Join us in Booth #4420 today!

HL7 Basic Overview
5:10 – 5:40 pm
Learn the basic organizational structure of Health Level Seven International (HL7); its products and technologies; its efforts in standards development worldwide; and its unique role in setting US standards for communicating healthcare information.

Donald Mon, PhD: Board Chair, HL7 International; Co-Chair, HL7 Electronic Health Records Work Group; Senior Director, Center for the Advancement of Health IT and Director, Standards & Interoperability, RTI International

Wednesday, February 22

HL7 Basic Overview
9:40 – 10:10 am
Learn the basic organizational structure of Health Level Seven International (HL7); its products and technologies; its efforts in standards development worldwide; and its unique role in setting US standards for communicating healthcare information.

Charles Jaffe, MD, PhD: HL7 International Chief Executive Officer

Preparing for the Collection and Use of External Family History & Genetic Test Result Data
10:20 – 10:50 am
Patients and consumers will use PHRs and genetic testing services outside of your healthcare organization, but will still expect this data to make it into the EHR. With the developments in personalized medicine, adoption of genetic testing into routine clinical care will increase. As a solution, the HL7 Clinical Genomics messaging models can be leveraged to structure family health history data and genetic test results into the EHR for use by clinical decision support systems.

The ANSI-approved Family Health History and recently piloted Genetic Variation standards will facilitate the flow of clinical genomic and cytogenetic information from genetic testing laboratories to medical practitioners who have ordered such information for patient care. With HL7 CDA a Meaningful Use requirement, the CDA GTR (Genetic Test Result) is under development, along with a data transmission model for large data sets that will be created from next generation sequencing.

Grant Wood: Senior IT Strategist, Intermountain Healthcare Clinical Genetics Institute; Facilitator, HL7 Clinical Genomics Work Group

Personal Health Record (PHR) System Functional Model
11:00 – 11:30 am
The PHR System Functional Model will be briefly reviewed. Differences between the PHR system and the EHR system functional models will be identified, particularly as they relate to an individual’s consent management and privacy challenges. The value of the PHR System Functional Model to individuals, vendors, providers, and other stakeholders, as well as the current activities for this standard, will be discussed. Finally, PHR solutions are gaining attention worldwide. Hear highlights on the international status and barriers for adoption of PHRs, and how the PHRs can play a role in US “Meaningful Use.”

Donald T, Mon, PhD: Board Chair, HL7 International; Co-Chair, HL7 Electronic Health Records Work Group; Senior Director, Center for the Advancement of Health IT and Director, Standards & Interoperability, RTI International

HL7’s Version 3 Standard
11:40 – 12:10 pm
Version 3 is HL7’s family of standards developed with a model-driven methodology. This talk will provide an overview of: the objectives for Version 3 standards; the Version 3 model-driven architecture and methodology; the importance of model-driven design for the stability and integrity of the standards; and a “walk-through” of the steps to go from HL7’s ANSI and ISO-approved standard Reference Information Model (RIM) to a specific message schema that meets a particular set of requirements.
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George “Woody” Beeler, Jr., PhD, FHL7: Co-Chair, Foundation & Technology Steering Division, HL7 Technical Steering Committee; Co-Chair, HL7 Modeling and Methodology Work Group; Past Chair, HL7 International Board of Directors; HL7 Fellow; Principal, Beeler Consulting, LLC

HL7 Reference Information Model
12:20 – 12:50 pm

The HL7 Reference Information Model (RIM) is the foundation on which HL7’s Version 3 model-driven standards are defined. The RIM, which is now an ISO standard, as well as an HL7-ANSI standard, was developed collaboratively within HL7 over the past decade. It is an abstract, relatively lean, information model defined in UML. When combined with a rich set of data types, and HL7-defined and maintained terminology it provides a solid foundation on which to design healthcare information structures. This presentation is an overview of the RIM contents, and seeks to provide understanding of the abstractions that allow a compact model to express the full semantic richness required for healthcare communications.

George “Woody” Beeler, Jr., PhD, FHL7: Co-Chair, Foundation & Technology Steering Division, HL7 Technical Steering Committee; Co-Chair, HL7 Modeling and Methodology Work Group; Past Chair, HL7 International Board of Directors; HL7 Fellow; Principal, Beeler Consulting, LLC

HL7 and Meaningful Use Series

Lab Results Interface – The Flexible Implementation Guide
2:40 – 3:10 pm

This is a presentation on the Lab Results Interface (LRI) Implementation Guide (IG). It is intended to provide an explanation of why the LRI IG is important and how the IG can flexibly handle a wide variety of interoperability sophistication of the users. It was developed within the Standards and Interoperability Framework Initiative (S&I Framework) supported by the Office of the National Coordinator of Healthcare (ONC).

Bob Dolin, MD, FHL7: Vice Chair, HL7 International; Co-Chair, HL7 Structured Documents Working Group; Co-Editor, HL7 Clinical Document Architecture; HL7 Fellow; President and Chief Medical Officer, Lantana Consulting Group

This IG uses profiles to further refine and tighten the functionality of the IG. This flexibility allows users to use the IG and expand their use of it as they gain more functionality in their systems through the selection of more complex profiles.

Ken McCaslin, FHL7: Co-Chair, HL7 Orders and Observations Work Group; Co-Chair, HL7 Electronic Services Work Group; Past Co-Chair, Technical & Support Services Steering Division; HL7 Technical Steering Committee; HL7 Fellow; Director, HealthCare Standards, Quest Diagnostics; Co-Chair, HIT, American Clinical Laboratory Association (ACLA); Co-Chair, S&I Framework LRI – IG Work Group

greenCDA® and greenCCD®
3:20 – 3:50 pm

HL7 is continually striving to lessen the implementation challenges associated with standards adoption. Here we introduce greenCDA and greenCCD in that light, as new HL7 technologies primarily focused on making HL7 easier to implement.

Creation of a CDA document instance conformant to CCD or to any other CDA Implementation Guide (IG) may require knowledge of the CDA R2 base specification; HL7 Version 3 data type specification; CDA templates defined in the particular IG; terminology code lists referenced by the IG; etc. This can pose challenges to implementers.

The greenCDA philosophy is to collapse everything into a simple XML schema, in order to streamline instance creation, parsing, and validation. The simplified XML has clinically meaningful element and attribute names, is 100% transformable into canonical CDA, and hides certain CDA complexities (such as fixed attributes). As such, it is easy to implement, while able (through transformation into canonical CDA) to meet robust processing requirements.

Bob Dolin, MD, FHL7: Vice Chair, HL7 International; Co-Chair, HL7 Structured Documents Working Group; Co-Editor, HL7 Clinical Document Architecture; HL7 Fellow; President and Chief Medical Officer, Lantana Consulting Group
**Templated CDA and the CDA Consolidation Project**

4:00 – 4:30 pm

Imagine opening up your favorite word processor and pulling in your favorite template – it constrains what you can do, but it helps ensure consistency across the documents you produce. Imagine you draw your template from a community library, where you benefit from the development work of other contributors. Imagine further that you can pull multiple small templates into your document – one to define the overall document structure, one to define the detailed content for one of the sections, etc.

Imagine that your favorite word processor produces CDA documents and that templates in the community library are vetted by clinical experts through an open process, and stored in a format that allows them to be used by any word processor – so that generated CDA documents are constrained by the templates selected, in order to ensure consistency.

Imagine if you could do all this in a way that creates minimal disruption to clinical workflow while putting you on an incremental path to semantic interoperability, a path that leads to Meaningful Use.

You’d be imagining “templated CDA.”

Now, imagine that all the CDA templates cited under Meaningful Use were amalgamated into a single collection that had been reviewed and vetted by HL7, ONC, IHE, and the Health Story consortium, and then published, complete with user documentation and implementation artifacts.

You’d be imagining the “HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation.”

*Bob Dolin, MD, FHIL7*: Vice Chair, HL7 International; Co-Chair, HL7 Structured Documents Working Group; Co-Editor, HL7 Clinical Document Architecture; HL7 Fellow; President and Chief Medical Officer, Lantana Consulting Group

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**IHE Update: IHE USA Activities in 2011 and Beyond**

4:40 pm – 5:10 pm

This presentation will provide an update on the developments in Integrating the Healthcare Enterprise (IHE) and specifically IHE USA, and the trends and plans for 2012. This presentation will also highlight IHE’s involvement technically and organizationally with HL7 and potential work going forward in the future.

*Jim St.Claire, CISM, PMP, SSGB*: Senior Director, Interoperability and Standards, HIMSS

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**HL7 Basic Overview**

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*Grant Wood*: Senior IT Strategist, Intermountain Healthcare Clinical Genetics Institute; Facilitator, HL7 Clinical Genomics Work Group

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**Thursday, February 23**

**HL7 and Meaningful Use Series**

**HL7 and Meaningful Use**

9:40 – 10:10 am

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Coordinator for Healthcare IT (ONC) has embraced a collaborative project, supported by HL7, IHE and the Health Story Project, to consolidate specifications and eight CDA implementation guides, first identified by HITSP as C32. In the coming months, additional projects, developed and supported by ONC under the Standards & Interoperability Framework, will streamline the implementation of these and other standards. Much of the functionality required in Phases 2 and 3 may be addressed by CDA. With the introduction of greenCDA®, HL7 is providing increased functionality, lower overhead, shorter development time and greater ease of implementation. For many, this bodes a promising future in the evolution of meaningful use adoption.

Grant Wood: Senior IT Strategist, Intermountain Healthcare Clinical Genetics Institute; Facilitator, HL7 Clinical Genomics Work Group

HL7 Version 2 and Electronic Lab Reporting
10:20 – 10:50 am

ONC is completing preparation of Meaningful Use Stage 2 requirements and implementation specifications. The Lab Result Interfacing (LRI) for the Ambulatory Lab setting is a natural outgrowth of Meaningful Use Stage 1 towards published specific implementation requirements based on long and widely used HL7 Version 2 Standards.

In January 2007, HL7 completed normative balloting and published Version 2.5.1. This version contained slight modifications to four fields in Version 2.5 for the express purpose of supporting an implementation guide for communicating lab orders and results between a provider and an external lab testing service (e.g., a reference lab).

The effort was taken due to a then recent interpretation of the requirements of the Clinical Laboratory Improvements Amendment (CLIA) of 1988 related to the exchange of electronic laboratory information with supplemental agencies. HL7 was informed of a need to include a limited number of additional fields that were located in the OBX Segment of Version 2.5 to support compliance.

This presentation reviews Version 2.5.1 and the requirements for the Meaningful Use Stage 2 requirements for the use of HL7 Version 2 messaging for LRI.

John Quinn, FHL7: HL7 International Chief Technical Officer; HL7 Fellow

HL7 Version 2 and Immunization Registries
11:00 – 11:30 am

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The View from the Trenches — What 3,000 Physicians Have Told Us about EHRs and Meaningful Use
2:40 pm – 3:10 pm

We know the opinions of the experts when it comes to EHR adoption and Meaningful Use, but what do the doctors on the front lines of healthcare have to say?

AmericanEHR Partners continually collects and reports data on user satisfaction with EHRs, health information technology, and the intention to purchase EHR systems. During this presentation we will describe the site and its capabilities, and we will present some intriguing results from the data collected thus far.

AmericanEHR Partners is a free online resource designed to aid the medical community with the selection, implementation, and effective use of health information technology and electronic health records (EHR). AmericanEHR Partners was founded by the American College of Physicians and Cientis Technologies and is supported by 16 additional professional societies and content partners, including HIMSS. AmericanEHR Partners currently has more than 13,000 registered members, representing more than 208,000 clinicians in member practices.

Alan Brookstone, MD: CEO, Cientis Technologies, an international healthcare consultant and co-founder of AmericanEHR Partners Senior IT Strategist, Intermountain Healthcare Clinical Genetics Institute

Thomson Kuhn: Sr. Systems Architect, American College of Physicians
IHTSDO and HL7 – Bridging Standards Together
3:20 – 3:50 pm

IHTSDO and HL7 have been working closely over the last two years to bring their standards closer together and make them easier to use in real-world healthcare implementations. This talk covers some of the work that the two organizations have been progressing as a team, including:

- IHTSDO and HL7 working in partnership with the Regenstrief Institute to provide advice on binding both SNOMED CT and LOINC to HL7 Version 2 and Version 3 messages
- Working in partnership with the Mayo Clinic and OMG to produce a common terminology services (CTS2) Implementation Guide for SNOMED CT
- Setup of a Terminology Authority within HL7, to coordinate the submission of SNOMED CT requests to IHTSDO
- Alignment of HL7’s internal vocabulary with SNOMED CT
- Use of the IHTSDO Workbench to maintain HL7 vocabulary

John Gutai: Chief Technical Architect, IHTSDO

A Tour of HL7’s SOA Standards and Their Role in Enterprise Integration
4:00 – 4:30 pm

Whether you are within an organization and trying to integrate off-the-shelf and legacy systems; are collaborating with business partners; or are participating within an HIE, service-oriented architecture (SOA) is a solution approach that promotes data consistency, quality, and facilitates interoperability among disparate technology components. The reality is that SOA, done effectively, is a business-driven initiative that can deliver business value, foster transformation, process improvement, and service delivery.

SOA provides a means to specify information, functions, and behavior into consistent, reusable components; and standards are needed to allow these components to collaborate within and across organizational boundaries. HL7 has been producing healthcare-specific SOA standards to address intra- and inter-enterprise interoperability. This session will explore the importance of this architectural style, and provide a tour of HL7 SOA specifications.

Ken Rubin: Co-Chair, HL7 Service Oriented Architecture Work Group; Chief Architect, Federal Healthcare Portfolio, HP Enterprise Services

HL7’s Version 3 Standard
4:40 pm – 5:10 pm

Version 3 is HL7’s family of standards developed with a model-driven methodology. This talk will provide an overview of: the objectives for Version 3 standards; the Version 3 model-driven architecture and methodology; the importance of model-driven design for the stability and integrity of the standards; and a “walk-through” of the steps to go from HL7’s ANSI and ISO-approved standard Reference Information Model (RIM) to a specific message schema that meets a particular set of requirements.

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Clinical Document Architecture (CDA®)

Clinical documents are the core of a patient’s lifetime health record. HL7’s CDA standard provides an exchange model for clinical documents such as discharge summaries and progress notes. A consistent approach to electronic clinical documents means that critical information contained in the documents can be used independently of the application on which it was produced. For example, CDA documents can be displayed using XML-aware Web browsers or wireless applications on mobile devices. The standard is used throughout the world in countries such as Argentina, Germany, Japan and the United Kingdom. CDA, Release 2 was published as an international standard by the International Organization for Standardization (ISO) in late 2009.

Clinical Genomics Pedigree Topic

The HL7 Clinical Genomics Pedigree Model is a data standard for transmitting family health histories between systems. This includes describing a patient’s full pedigree with diseases and conditions, and the option to link genetic data and risk analysis. It has the ability to transmit complete family history information for clinical decision support. This model is ANSI-approved and is the HITSP-accepted standard. This standard allows EHR/PHR interoperability, and is in use by the Surgeon General in his family history collection website: My Family Health Portrait. It is also in the process of becoming of an international standard through ISO.

Continuity of Care Document (CCD®)

HL7 and ASTM International created the Continuity of Care Document (CCD) to integrate two complementary healthcare data specifications: ASTM’s Continuity of Care Record (CCR) and HL7’s Clinical Document Architecture (CDA). The CCD is endorsed by the Healthcare Information Technology Standards Panel (HITSP) as the harmonized format for the exchange of clinical information, including patient demographics, medications and allergies. In 2010, the CCD was named in the US Office of the National Coordinator for Health Information Technology’s Final Rule on the initial set of standards, implementation specifications and certification criteria for EHR technology.

The Electronic Health Record System (EHR-S) Functional Model

The HL7 EHR-S Functional Model outlines important features and functions that should be contained in an EHR system. Through the creation of functional profiles, this model provides a standard description and common understanding of functions for healthcare settings. To date, HL7 has developed or is developing profiles for areas such as child health, emergency care, long term care, behavioral health and vital statistic reporting. The EHR-S Functional Model was published by ISO as an international standard in 2009. The second release of the EHR-S FM is currently in the ballot process.

The Personal Health Record System Functional Model (PHR-S FM)

The PHR-S FM defines the set of functions for Personal Health Record (PHR) systems and offers guidelines that facilitate health information exchange among different PHR systems and between PHR and Electronic Health Record systems. The PHR-S FM was published as a Draft Standard for Trial Use (DSTU) in December 2008. Groups such as the Certification Commission for Healthcare Information Technology (CCHIT) and the Centers for Medicare and Medicaid Services have already begun using components of the PHR-S FM.

The Reference Information Model (RIM)

The Reference Information Model (RIM) is the cornerstone of the HL7 Version 3 development process. The RIM is the ultimate source from which all HL7 Version 3 protocol specification standards draw their information-related content. It is a static model of health and healthcare information as viewed within the scope of HL7 standards development activities. The RIM is an object model and graphically represents the clinical data (domains) and identifies the life cycle of events that a message or groups of related messages will carry. The RIM became an ANSI-approved standard in 2003 and was published as an international standard by ISO in 2006.

Version 2 Messaging Standard

The Version 2 Messaging Standard is one of the most widely implemented standards for healthcare information in the world and was published as an international standard by ISO in 2009. First released in October 1987 as An Application Protocol for Electronic Data Exchange in Healthcare Environments, Version 2 is a messaging standard that allows the exchange of clinical data between systems. It is designed to support a central patient care system as well as a more distributed environment where data resides in departmental systems. In 2010, Version 2 was named in the US Office of the National Coordinator for Health Information Technology’s Final Rule on the initial set of standards, implementation specifications and certification criteria for EHR technology.

Version 2.7, representing the latest update to the Version 2 Standard, was published in 2011.

Version 3 Normative Edition

The release of HL7’s Version 3 Normative Edition marks a quantum leap in the functionality and interoperability of messaging standards. Developed using the Reference Information Model (RIM), Version 3 is one of the first in the industry to embrace XML and provides a single source that allows implementers of Version 3 specifications to work with the full set of message. It includes standards for communications that document and manage the care and treatment of patients in a wide variety of healthcare settings. As such, it is a foundational part of the technologies needed to meet the global challenge of integrating healthcare information, in areas such as patient care and public health. Several countries throughout the world have already begun significant Version 3 implementations, including the United Kingdom, Canada, the Netherlands, Mexico, Germany and Croatia.
Countries with HL7 Affiliate Organizations

- Argentina
- Australia
- Austria
- Bosnia & Herzegovina
- Brazil
- Canada
- Chile
- China
- Colombia
- Croatia
- Czech Republic
- Finland
- France
- Germany
- Greece
- Hong Kong
- India
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Pakistan
- Puerto Rico
- Romania
- Russia
- Singapore
- Spain
- Sweden
- Switzerland
- Taiwan
- Turkey
- United Kingdom
- Uruguay