

**HL7 January Working Group Meeting
May 8-12, 2006
San Antonio, Texas
Report Submitted by
Bob Davis**

Executive Summary

At this HL7 meeting the focus of the Bob Davis was as follows:

Primary continues to focus on the development of the claims attachment. This is the work of the Attachment Special Interest Group (ASIG). This work group is responsible for development for the clinical component of the claims attachment. There is a joint HL7 and X12 project request in the approval process to access what information should be contained in an X12 message and an HL7 message. **The significance of this for public health data systems is the potential precedents to be established with a standard that integrates clinical and administrative data in federal statute and regulations.**

In addition, HL7 management was consulted to support an initiative to harmonize the demographic information common to the ANSI ASC X12 and HL7 standards. ANSI ASC X12 management has approved a cooperative project request to begin a very specific task of harmonizing common demographic data. The Patient Marital Status is the first data element to be addressed. **The significance of this for public health data systems is the potential to make data more comparable across the country.**

There was feedback from HL7 management that scheduling a harmonization summit would duplicate current work at the present time. Included would in the current work is the existing Memorandum of Understanding between HL7 and X12 along with specific project requests and the work of the HITSP work groups. It is important to note that both HL7 and X12 are very committed to the need for standards harmonization. **The concept of standards harmonization as a means of improving the interoperability of all of our health care systems should be important to the “keepers” of our public health data collection systems too. Any ideas on how to be part of the solution are welcomed.**

Though Bob Davis is not directly involved in the development of the functional model for the electronic health record (EHR), Lenel James of the Blue Cross Blue Shield Association has provided a report on the work of the Electronic Health Record Technical Committee at the end of this report. Anyone having additional questions about the EHR functional model should direct them to Bob Davis, who would be able to re-direct them colleagues at HL7 that can provide the pertinent information.

General HL7 News

Below is the schedule of future HL7 working group meetings:

- September 10-15, 2006 - Boca Raton, Florida
- January 7-12, 2007 - San Diego, California
- May, 2007 - Berlin, Germany
- September 16-21, 2007 - Atlanta, Georgia

In the past few years HL7 and ANSI ASC X12 have agreed through a new Memorandum of Understanding to collaborate more closely on issues of joint concern. As a result liaisons have been approved by the respective organizations. They are:

- Bob Davis is the ANSI ASC X12 liaison to HL7 (rdavis@nahdo.org)
- Maria Ward is the HL7 liaison to ANSI ASC X12 (Mward60610.aol.com)

The significance of this is that both ANSI ASC X12 and HL7 see the benefit in enhancing the communication between the two organizations to establish integrated health care data standards. Any questions about the relationship between the two organizations should be directed to either of the liaisons mentioned above.

Attachment Special Interest Group (ASIG) working session highlights

During the ASIG meeting there was a presentation on the use of SNOMED codes. The presentation is available upon request. Below are the highlights of that presentation. **This is significant to Public Health because of the increasing attention by the developers of the Electronic Health Record (EHR) and as a vocabulary needed in the use cases being developed by the Health Information Technology Standards Panel (HITSP). It should also be noted that the National Library of Medicine has a contract to map SNOMED vocabulary concepts to the ICD (9 & 10) classification system.**

SNOMED presentation highlights

- Deal with NLM to incorporate it into Unified Medical Language System Metathesaurus at reasonable price in United States
- SNOMED codes are updated every 6 months (December and June)
- Canada and Australia close to using for their EHR systems
- Value of standard terminology
 - Allow sharing of data
 - Facilitates quality monitoring and research
- Structural Overview
 - Standardizes clinical data

- Rich Clinical content
 - 365,000 concepts
- Vertical Hierarchies
- Horizontal Relationships
- Basic Elements
 - Concepts
 - Historically preserved even if it becomes obsolete
 - Unique identifier
 - Logically defined
 - Hierarchies
 - All concepts live in a hierarchy
 - Multiple levels of granularity
 - Flexibility of expression
 - FYI 6 month release schedule not adequate for pharmacy hierarchy
 - Relationships
 - Allow for relationships to be defined across a hierarchy
 - Descriptions
 - Name given to a concept, which can include synonyms
- Primary and Secondary uses of data
 - To clearly communicate clinical information (Primary)
 - Transmission and sharing of data to other members of the healthcare team, e.g. consultants, therapists
 - Data aggregation
 - Decision support, e.g. alerts and reminders
 - Outcomes management
 - Disease management
- Relationship to other terminology
 - Mapped to ICD-9-CM
 - Mapped to ICD-10-UK
 - Mapped MedDRA (project funded by AHRQ)
 - SNOMED generally more granular than other terminologies
- Principals for development
 - Quality focused
 - Clinicians should determine content
 - Broad, inclusive involvement of diverse specialty groups and medical informatics
 - Minimal barriers to adoption and use
 - A quality improvement process open to public scrutiny and vendor input
 - Diverse in house expertise (including veterinary)
 - Diverse external collaborators
- How used
 - Electronic health records (EHR)
 - CPOE
 - e-prescribing
 - lab order entry

- Problem lists
- Disease templates
- Tissue annotation
- Lab Reporting
- 3D Image Auto-indexing
- HL7 messaging
- Structured Product Labeling
- Summary
 - SNOMED CT supports the terminology requirements of global healthcare system users:
 - Clinically useful concepts
 - Comprehensive content
 - Interoperable structure
 - Scientifically sound
 - Well-maintained & supported

There was also discussion about the feasibility of using SNOMED codes in responding to requests for additional information in an attachment. At the January 2006 HL7 meeting a small mapping project was initiated to map a limited set of clinical LOINC codes to SNOMED CT codes. This had heightened significance since the National Committee on Vital and Health Statistics recommended the use of SNOMED CT and Clinical LOINC codes. Below are the highlights of that discussion.

Mapping Clinical LOINC to SNOMED Observations

- The purpose of the project was to analyze possible issues with the overlapping of the two terminologies
- Project scope limited to 200 codes to be mapped
- Results
 - Some went 1 to 1
 - Some LOINC more specific in observable entity hierarchy
 - The premise of mapping EHR using SNOMED codes to map them to LOINC in order to submit an Attachment.
- Discussion Points
 - The main issues raised was related to the balancing between theoretical issues with SNOMED / LOINC interoperability and moving forward with a non-substantive change to the NPRM in anticipation of a final rule.
 - Outstanding questions.
 - What workflow does ASIG envision?
 - What about organizations that are mandated only to use SNOMED?
 - What is the desired level of granularity?
 - What maintenance processes need to be defined
 - What are the cross HL7 consistency issues
 - There were some comments that it is now futuristic to think about automated replies because of the lack of current structured data available

in provider systems as well as the current processing capability in payer systems. That futuristic line of thought raised potential privacy and trust issues related to automated payer access to provider systems.

- There was agreement about how best to foster reuse of data (i.e. use SNOMED where that is a mandated instead of LOINC)

Joint Session with Structured Documents Technical Committee

That committee is now the sponsoring group within HL7 under which the ASIG now operates. This is a recent change. The reason for this change is because the decision by the ASIG to use Clinical Document Architecture (CDA) as the HL7 standard to message attachment information. The Structured Documents TC is responsible for the development and maintenance of the CDA standard. Below are the highlights of the NPRM comments related to the CDA standard.

- When an attachment type requires a signatures, the following issues were discussed.
 - There was one opinion that signature apply to a document as a whole
 - There was debate about what any signature applies to within a CDA document.
 - There was consensus that the NPRM response would be that no clarification of what signature means would be included in the implementation guide or any of the AIS booklets because there are concerns that along with the clarification will come legal obligations. There will be a pointer to the CDA standards on the meaning in this context.
- There was a question about the AIS booklets using specific LOINC codes that are repeated for each (for example) treatment plan rather than a generic LOINC code with other ways to differentiate. There were comments about whether a typical attachment would likely be asking for a part of a whole document or a separate form that would be filled out (in particular for ambulance and rehab services).
- There was also discussion on how to reconcile other uses of the attachment, especially if it would require additional data. Could be addressed by future enhancements in CDA R2 or recommendations from HITSP? It would be nice to use the same format for multiple uses, but that may not work in getting a final rule done for claims attachment.

Other ASIG Activities

The bulk of the meeting time for the ASIG during this working group meeting was spent responding to NPRM comments on a one by one basis.

- There were about 900 technical comments requiring action by either HL7 and X12 work groups. This did not include policy comments, which would be addressed by DHHS.

- Each responses was categorized as to the status and any future action that may be necessary to resolve the issue raised in the comment.

There was a report on current e-prescribing pilots. Below are the 4 pilot sites and some initial observations.

- New Jersey
- Sure Scripts
- Achieve healthcare (long term care)
- Brigham & Women's (Massachusetts)
- Ohio KePro-UPCP
- Observations
 - 5 very different approaches
 - very cooperative environment
 - timing an issue (ask Tim more about this)

DHHS News

The following are highlights of the report from the CMS representative on the ASIG:

- Washington Publishing Company (WPC) will now be charging for all X12 Guides, including HIPAA guides, since CMS no longer has a contract to provide these guides to the industry at no cost.
- There was a question about the plans Medicare has to implement claims attachments. There has been no decisions yet about such plans.
- One of the original pilot sites is using unspent monies from their pilot to implement in a production mode an electronic rehab and clinical reports claims attachment process.

Report on the activities of the Office of the National Coordinator

There was a report to the ASIG on the activities of the Office of the National Coordinator and on some of their work intended to improve the United States health care systems by leveraging the advantages of health information technology.

The Certification xxxx Health Information Technology (CCHIT)

- Mission – to accelerate the adoption of robust, interoperable health IT by creating an efficient credible and sustainable product certification program.
- There will be a Pass / Fail certification based on decision of board of commissioners.
- There will be three implementation phases:
 - Phase 1 – ambulatory care settings
 - Phase 2 – inpatient settings
 - Phase 3 – infrastructure
- The certification criteria development process will be based on”

- Functionality – based on Electronic Health Record (EHR) Draft Standard for Trial Use (DSTU) model
- Interoperability –
 - At national level no clinical standards equivalent to HIPAA, which is currently problematic
- Security

Health Information Technology Standards Panel (HITSP) Update

- There were three groups organized under the Office of the National Coordinator.
 - privacy and security
 - certification (CCHIT)
 - Standards (HITSP) - creating interoperability standards for specific use cases
- HITSP – link on www.ansi.org to link to the activities of HITSP (also see www.hitsp.org)
 - There have been work groups formed to develop three uses cases that would use standards to facilitate interoperability across the industry.
 - Bioterrorism – public health reporting on same day basis
 - EHR – sharing lab results
 - Consumer Empowerment
 - An example of issue that would need to be resolved to enable the use cases to be interoperable would be the overlap between clinical LOINC and SNOMED CT codes.
 - Part of the work of the HITSP work groups is to work with Standards Development Organizations to resolve the “gaps” between existing standards and the defined needs in these use cases.
 - The work groups are developing integration profiles / building blocks for interoperability. For example, the ways of identifying a patient across the standards need to be uniformly defined.

Vocabulary Technical Committee

There is now a joint HL7 and X12 project request to harmonize common demographic data elements across the industry. As a first step the project proposal will focus on only one data element, patient marital status. The Vocabulary Technical Committee will be the primary point of contact for this project related to the HL7 standard. Below are the highlights of that discussion.

- The Vocabulary TC agreed to concept of using an external code list for the Patient Marital Status.
- Related Issues
 - Job one will be finding an organization that would be willing to maintain this data element and be agreeable to both HL7 and X12. Below are some of the alternatives suggested by Vocabulary TC members.

- CAbig
- SNOMED
- CDC
- ISO
 - It should be noted that the availability of free content is a significant issue if the maintenance of this data element was done by ISO.
- In addition, it was suggested that work continue on the matrix defining the value set for Patient Marital Status.
- Another important aspect of this project will be to document the process with the expectation that the process could be repeated for future harmonization projects.

Electronic Health Record Technical Committee (EHR TC)

(As reported by Lenel James)

After the Phoenix meeting in January, there remained several hundred comments for reconciliation of the Committee-level ballot. In the interim, prior to the May Working Group meeting, the ballot reconciliation work was completed, and the summary of the ballot work presented to the TC. On April 24, in Chicago, hosted by AHIMA and BCBSA, there was a special work group that did a formal harmonization review of the reconciled version of the EHR-S Functional Model. This work to clean-up the model and improve the use of more consistent text and term, was reported to the TC. During the week, the TC worked on the process of completing the process to harmonize the text and references between the five chapters of the EHR FM. It was motioned and voted to move the updated version of the balloted model to membership ballot for August. Also, work and discussion on the process and approach to having HL7 document and consider the process of “registering” profiles. Profiles are formal care-setting specific subsets of the full functional model. Profiles are the basis for claiming conformance to this anticipated ANSI standard.

Several groups are working on Profiles and other related model. They presented the status of their work and their plans for the near future. They are listed below:

- The Emergency Department Special Interest Group – working on DEEDS update and an ED Profile
- Long Term Care – members of the TC from this care setting will be working on a Long Term Care profile over the summer
- Behavioral Health – has begun the process, and plan to craft a Profile of the Summer
- Personal Health Record (PHR) – existing work group of the TC, has completed the functions of a PHR, will be working on conformance criteria for the September WG meeting of HL7
- Interoperability – existing work group of the TC, has completed two public comment periods, has submitted their Interoperability model (IM) for editing

and consideration for an Informational ballot, at the Committee level. A future TC meeting will determine whether the IM will be balloted in 2006.