Let’s Get Under the Hood with Meaningful Use Stage 2

Grant M. Wood
HL7 Ambassador webinar
February 7, 2013
MU Series Topics

- Consolidated CDA
- Family Health History
- S&I Framework Laboratory Result Interface
- Immunization Messaging
- Electronic Laboratory Reporting to Public Health
- Infobuttons for Clinical Decision Support
- Quality Reporting Document Architecture
Global Topics Covered in the Series

1. Need To Send/Receive Which Artifact
   Exactly when are EHRs supposed to send this information?

2. A Valid Example of What You Are Expected To Send Or Receive—And Its Description
   Each section will walk-through an example artifact identifying its different parts and the content inside

3. How to Read and Understand the Meaningful Use Stage 2 Implementation Guides
   Go through the implementation guides that define the required artifacts and their major parts and constraints

4. The Vocabularies Needed
   Brief discussion will cover CVX, LOINC, SNOMED, etc.

5. Which HL7 Standards Do You Need To Know
   Brief discussion on the standards and how to learn more about them
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  - Immunization Messaging
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  - Infobuttons for Clinical Decision Support
  - Quality Reporting Document Architecture
Consolidated CDA – Stage 2 Measure

- The EP, EH, or CAH that transitions or refers their patient to another setting of care or provider of care provides a summary of care record for more than 50% of transitions of care and referrals.

- More than 50% of all unique patients seen by the EP during the EHR reporting period are provided timely (within 4 business days after the information is available to the EP) online access to their health information subject to the EP's discretion to withhold certain information.
Display. EHR technology must be able to electronically display in human readable format the data included in transition of care/referral summaries received and formatted according to any of the following standards (and applicable implementation specifications) specified in: § 170.205(a)(1), § 170.205(a)(2), and § 170.205(a)(3).
Consolidated CDA - Standards


- § 170.205(a)(2) – ASTM E2369 Standard Specification for Continuity of Care Record and Adjunct to ASTM E2369

Consolidated CDA Implementation Guide Part 1 & 2

- February 20 & 27 – Presenter: Calvin Beebe, HL7 Treasurer and member Board of Directors; Co-chair, HL7 Structure and Semantic Design Steering Division – HL7 Technical Steering Committee; Co-chair, HL7 Structured Documents Work Group; Co-Editor, CDA; Technical Specialist, Mayo Clinic, Rochester, MN.
Introduce the *HL7 Implementation Guides for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1 - US Realm*, or C-CDA Implementation Guide.

Focus on the requirements for C-CDA in Meaningful Use Stage 2, reviewing the EMR Certification Rules and the Eligible Provider / Eligible Hospital C-CDA related goals.

Reviewing the S&I Companion Guide, which provides useful clarification on how to map Stage 2 data requirements to the HL7 C-CDA standard. Once we complete part 1 we will be ready to discuss the C-CDA IG itself in stage 2.
Consolidated CDA for Meaningful Use
Part 2 - Objectives

- Walk through the various sections of the C-CDA Implementation Guide
- Provide some examples of what you should expect to see
- Understand how to build a C-CDA solution
- Look at a sample C-CDA instance
- Review some resources and tools available for developers
MU Series Topics

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- **Family Health History**
  - S&I Framework Laboratory Result Interface
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More than 20% of all unique patients seen by the EP or admitted to the EH’s or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period have a structured data entry for one or more first-degree relatives.
Family Health History - Certification Criteria

- Enable a user to electronically record, change, and access a patient’s family health history according to:
  
  ➢ (i) At a minimum, the version of the standard specified in § 170.207(a)(3); or
  
  ➢ (ii) The standard specified in § 170.207(j)
Family Health History - Standards

- § 170.207(j) – HL7 Version 3 Standard: Clinical Genomics; Pedigree.
Family Health History and Beyond

March 6 - Presenter: Grant Wood, Member, HL7 Clinical Genomics Work Group; Co-chair, HL7 Marketing Council; Senior IT Strategist, Intermountain Healthcare’s Clinical Genomics Institute.
Family Health History and Beyond - Objectives

1. Why Family Health History?
2. Review of the Meaningful Use Stage 2 Requirement
3. Personalized Medicine Story – Family Health History Use Case and Model
4. Web-based Patient Tool Demo
5. Clinical Workflow, Clinical Decision Support Example
6. Going Beyond Family Health History (Genomics)
MU Series Topics

- Consolidated CDA
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Lab Result Interface - Stage 2 Measure

- More than 55% of all clinical lab tests results ordered by the EP or by authorized providers of the EH or CAH for patients admitted to its inpatient or emergency department (POS 21 or 23) during the EHR reporting period whose results are either in a positive/negative affirmation or numerical format are incorporated in CEHRT as structured data.

- Hospital labs send structured electronic clinical lab results to the ordering provider for more than 20% of electronic lab orders received.
Lab Result Interface - Certification Criteria

- Incorporate laboratory tests and values/results.
  (i) Receive results.
    (A) Ambulatory setting only.
      (1) Electronically receive and incorporate clinical laboratory tests and values/results in accordance with the standard specified in § 170.205(j) and, at a minimum, the version of the standard specified in § 170.207(c)(2).

- Inpatient setting only – transmission of electronic laboratory tests and values/results to ambulatory providers. EHR technology must be able to electronically create laboratory test reports for electronic transmission in accordance with the standard specified in § 170.205(j) and with laboratory tests expressed in accordance with, at a minimum, the version of the standard specified in § 170.207(c)(2).
Lab Result Interface - Standards

- § 170.205(j) – HL7 Version 2.5.1. Implementation Guide: S&I Framework Lab Results Interface

- § 170.207(c)(2) – LOINC® version 2.40, June 2012, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute
March 13 – Presenter: **Hans J. Buitendijk**, Co-chair, HL7 Clinical Statement Work Group; Co-chair, HL7 Orders and Observations Work Group; HS Standards & Regulations Manager, Siemens Healthcare
Laboratory Result Interface - Objectives

- Meaningful Use rules/requirements driving lab results for ambulatory providers
- Overview of the Implementation Guide used to support the exchange of lab results between laboratories and ambulatory providers
  - Key concepts and approach
  - Vocabularies
  - Sample message extracts
- MU Test procedures and Data
- Pre-Requisite Standards
MU Series Topics

- Consolidated CDA
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- S&I Framework Laboratory Result Interface

**Immunization Messaging**
- Electronic Laboratory Reporting to Public Health
- Infobuttons for Clinical Decision Support
- Quality Reporting Document Architecture
Immunization – Stage 2 Measure

- The EP, EH, or CAH who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care provides a summary care record for each transition of care or referral.

- Successful ongoing submission of electronic immunization data from CEHRT to an immunization registry or immunization information system for the entire reporting period.
Transitions of care: (b)(2) – create and transmit transition of care/referral summaries.

(i) **Create.** Enable a user to electronically create a transition of care/referral summary formatted according to the standard adopted at § 170.205(a)(3) that includes, at a minimum, the Common MU Data Set** and the following data expressed, where applicable, according to the specified standard(s):

   (B) **Immunizations.** The standard specified in § 170.207(e)(2);

- **Immunization information.** Enable a user to electronically record, change, and access immunization information.

- **Transmission to immunization registries.** EHR technology must be able to electronically create immunization information for electronic transmission in accordance with:

  (i) The standard and applicable implementation specifications specified in § 170.205(e)(3); and

  (ii) At a minimum, the version of the standard specified in § 170.207(e)(2).
Immunization Messaging - Standards


- § 170.205(e)(3) – HL7 2.5.1. Implementation specifications: HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.4
Immunization Messaging
Using HL7 Version 2.5.1

- March 20 –Presenter: Rob Savage, Co-chair, HL7 Public Health & Emergency Response Work Group, Author of V2.5.1 Implementation Guide for Immunization Messaging, Northrop Grumman Contractor supporting CDC Immunization Information Systems Support Branch (IISSB)
Immunization Messaging Using HL7 Version 2.5.1 - Objectives

- List the differences between Version 2.3.1 and Version 2.5.1 of the implementation guide for immunization messaging.
- List the core data elements of immunization histories that need to be supported.
- Discuss use cases supported by the messages in the implementation guide and those included in Meaningful Use 2.
- Describe and Conform to the usage guidance pre-adopted from Version 2.7.1 in Release 1.4 of the Implementation Guide.
- Validate conformance of messages to the guide using the tools developed by NIST.
- Gain the knowledge that will allow you to generate immunization messages that will conform to Meaningful Use certification testing.
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- Quality Reporting Document Architecture
Lab Reporting to Public Health – Stage 2 Measure

- Successful ongoing submission of electronic syndromic surveillance data from CEHRT to a public health agency for the entire EHR reporting period.
Lab Reporting to Public Health – Certification Criteria

- **Transmission to public health agencies – syndromic surveillance.** EHR technology must be able to electronically create syndrome-based public health surveillance information for electronic transmission in accordance with:
  
  (i) **Ambulatory setting only.**
  
  (A) The standard specified in § 170.205(d)(2).
  
  (B) **Optional.** The standard (and applicable implementation specifications) specified in § 170.205(d)(3).
  
  (ii) **Inpatient setting only.** The standard (and applicable implantation specifications) specified in § 170.205(d)(3).

- **Inpatient setting only—transmission of reportable laboratory tests and values/results.** EHR technology must be able to electronically create reportable laboratory tests and values/results for electronic transmission in accordance with:
  
  (i) The standard (and applicable implementation specifications) specified in § 170.205(g); and
  
  (ii) At a minimum, the versions of the standards specified in § 170.207(a)(3) and (c)(2).
Lab Reporting to Public Health – Standards

- § 170.205(g) – HL7 2.5.1. Implementation specifications: HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm) with Errata and Clarifications, and ELR 2.5.1 Clarification Document for EHR Technology Certification.
Electronic Laboratory Reporting to Public Health Using HL7 Version 2.5.1

- **John A. Roberts**, Co-chair, HL7 Public Health & Emergency Response Work Group; Interim Chair, National ELR Work Group; Director, Interoperability and Standards, Office of Information Technology Services, Tennessee Department of Health.

- **Erin Holt**, MPH; HL7 PHER Work Group member; Director of Surveillance Systems and Informatics Program, Communicable and environmental Disease Services and Emergency Preparedness Section, Tennessee Department of Health.
Electronic Laboratory Reporting to Public Health Using HL7 Version 2.5.1 - Objectives

- Electronic Laboratory Reporting Preparation
- Characteristics of ELR messages
- Message testing resources
- Operations and Maintenance
- Where to find more information
MU Series Topics

- Consolidated CDA
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- Immunization Messaging Using
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Clinical Decision Support –
Stage 2 Measure

- Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period.
(ii) Linked referential clinical decision support.

(A) EHR technology must be able to:

(1) Electronically identify for a user diagnostic and therapeutic reference information; or
(2) Electronically identify for a user diagnostic and therapeutic reference information in accordance with the standard specified at § 170.204(b) and the implementation specifications at § 170.204 (b)(1) or (2).
Clinical Decision Support - Standards

- § 170.204(b) – HL7 V3 Standard: Context-Aware Retrieval Application (Infobutton).

Infobuttons for Clinical Decision Support

April 3 – Presenter: Guilherme Del Fiol, Co-chair HL7 Clinical Decision Support (CDS) Work Group; lead author of the HL7 Infobutton standard; Assistant Professor, University of Utah, Department of Biomedical Informatics.
Infobuttons for Clinical Decision Support - Objectives

- Background on clinicians’ information needs
- Examples of infobutton implementations
- Infobutton Standard architecture and specification walk-through
- Examples of infobutton requests and responses
- Meaningful Use criteria related to the Infobutton Standard
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Quality Reporting – Stage 2 Measure

- In the 2014 Edition EHR certification criteria final rule, we adopted the QRDA III, Release 1, standard at 45 CFR 170.205(k) and incorporated the standard by reference at 45 CFR 170.299(f)(14). The QRDA III is included in the certification criterion at 45 CFR 170.314(c)(3), which requires EHR technology presented for certification to be capable of electronically creating a data file for transmission of clinical quality measurement data in accordance with QRDA III and that can be electronically accepted by CMS.
Quality Reporting – Certification Criteria

- EPs, EHs, and CAHs will electronically report their CQMs in the QRDA Category I format, which will be the basis for EHR-based reporting. They may also submit aggregate-level data in QRDA III format.

- EPs must report on 9 of the 64 approved CQMs

- Eligible Hospitals and CAHs must report on 16 of the 29 approved CQMs
Quality Reporting – Standards

HL7 Quality Reporting Document Architecture (QRDA)

- April 10 – Presenter: Bob Dolin, MD, FACP; Chair-Elect, HL7 Board of Directors; President and Chief Medical Officer, Lantana Consulting Group
HL7 Quality Reporting Document Architecture (QRDA) - Objectives

- Overview of end to end quality reporting from EHRs
- Role of QRDA in Meaningful Use Stage 2 quality reporting
- Introduction to QRDA Category I and QRDA Category III specifications
How to Register
NEWS & ANNOUNCEMENTS

- January 2013 WGM Presentations
- 2013 January Co-Chair Survey on WGM Effectiveness
- Enter the HL7 Tooling Challenge for a chance to win $4,000 USD
- Domain Analysis Models and Functional Profiles now freely available
- Get the HL7 Standards named in the HHS Final Rule
- Press Release January 30 2013: HL7 Offers Free Ambassador Webinars: Meaningful Use Stage 2 and HL7 Standards on February 6 and Meaningful Use Stage 2 Webinar Series Preview on February 7
- Press Release January 28 2013: HL7 Names Two New Advisory Council Members
- Press Release January 25 2013: HL7 Forms New Clinical Quality Information Work Group

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UPCOMING EVENTS

- Meaningful Use Stage 2 and HL7 Standards
  Feb 6, 2013 to Feb 6, 2013 - Online Webinar
  Add to Calendar

- Let's Get under the Hood with Meaningful Use Stage 2
  Feb 7, 2013 to Feb 7, 2013 - Online Webinar
  Add to Calendar

- HL7 Meaningful Use Stage 2: What to expect when you are exchanging
  Feb 20, 2013 to Apr 10, 2013 - Skill Building Webinar
  Add to Calendar

- March Fundamentals Course - Registration will open via this link on January 8th at 10:00 AM EST
  Mar 14, 2013 to Jun 13, 2013
  Add to Calendar

- HL7 and Meaningful Use Hands-On Workshop
  Mar 26, 2013 to Mar 28, 2013 - Chicago, IL
  Add to Calendar

See more events
HL7 Meaningful Use Stage 2: What to expect when you are exchanging

Schedule

8-part webinar series

Every Wednesday, starting February 20 through April 10, 2013

All times: 12:00 PM Eastern

Each 60-minute presentations followed by 30-minute Q&A

Who Should Attend

Managers of Developers, Developers, Project Managers, Interface Analysts

Series Overview

This 8-week webinar series will provide an overview of HL7 standards developed to address Meaningful Use Stage 2 guidelines. It addresses the needs of the industry and consultants to know what standards to use for exchange, and know where to find the related information and specs and how to use them.

Topics Covered

1. Need To Send/Receive Which Artifact

Exactly when are EHRs supposed to send this information? Is this a batch transfer? What is the healthcare provider or the system doing when this artifact needs to be exchanged? This is functional, related to when the system is expected to create or consume the artifacts

Note: An ‘artifact’ is anything that the Meaningful Use guidelines state should be exchanged: message, document, service call, etc.

2. A Valid Example of What You Are Expected To Send Or Receive—and Its Description

Each section will walk-through an example artifact identifying its different parts and the content inside
Dates, Cost, and Questions

- 8-part webinar series
- 90 minute presentations, which include a 60 minute lecture with 30 minutes of Q&A
- Every Wednesday, February 20 – April 10, 1 PM Eastern
- HL7 Member: $99 each
- Non-member: $179 each
- Questions: Sharon@hl7.org
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