

HL7 EHR Interoperability WG Projects in Progress

Facilitators:

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EHR Interoperability WG – Standards Convergence

In Discussion

- US HIT Standards Committee
- US ANSI HIT Standards Panel, Technical Committees, Tiger Teams
- US National eHealth Collaborative
- US National Institute for Standards and Technology
- Health Level Seven Technical Steering Committee, Architectural Review Board
- ISO TC215 – Work Groups 1 and 8
- European Commission Mandate 403 on eHealth Interoperability
- Canadian Health Infoway
- UK National Health Service – Connecting for Health
- Standards Australia

US HIT Policy Committee – Notable Recommendations

Certification and Adoption

- “Implement a New Certification Process: Focus on Meaningful Use Objectives at a high level, less specificity.”
- “Increase Specificity on Interoperability”
- “ONC is encouraged to explore critical aspects of EHRs for which certification criteria may not exist today, e.g., usability and improved models for system and data architecture.”

US HIT Policy Committee – Notable Recommendations

Certification and Adoption

- “Address all privacy and security policies described in ARRA and HIPAA, including audit trails and consent.”
- “ONC should develop tighter integration between standards and certification.”
- “If necessary, ONC should commission (not just harmonize) the development of standards.”
- “Aggressively establish new, very specific requirements for Interoperability and data exchange.”
- “Prioritize focusing on criteria for interoperability and data exchange for systems/applications that interchange data with a certified EHR.”

US HIT Policy Committee – Notable Recommendations

Information Exchange

- “There should be core information exchange requirements that are technology- and architecture-neutral and would apply to all participants...”
- “These core requirements should be focused on the capability to achieve meaningful use and include interoperability, privacy, and security...”
- “Federal government should certify EHR and health information exchange components on these core requirements...”

US HIT Policy Committee – Additional Points

Information Exchange

“(1) Interoperability – a basic level of the transport/communication, package and content standards that are necessary to ensure exchange can occur

- “Top priority: transport/communication standards plus container/envelope standards for key clinical payloads so all can at least send and receive human readable data
- “Top priority: measure definitions and semantic standards for clinical data required for 2011 CMS and public health reporting

“(2) Privacy and (3) Security

- “Meet requirements of current law & those enacted in ARRA that will need to be implemented over the next 1-3 years...”

US HIT Standards Committee – Recommendation

Information Exchange

- 2013: ALL Structured Content, Single Container for ALL Exchange

1A – EHR Interop Projects

Joint Initiative Council

- Convened Jointly by ISO TC215, CEN TC251, HL7, CDISC, IHTSDO
- Submitted “Standards Convergence” as ISO TC215 New Work Item Proposal
 - October 2009, Durham, NC
 - On recommendation from JIC Co-Chairs Don Newsham and Melvin Reynolds
- Status: Complete
- Future: May request joint Work Item status (joint ballot)

1B – EHR Interop Projects

ISO TC215

- Title: “Standards Convergence to Promote EHR Interoperability”
- ISO New Work Item Proposal (Form 4) to TC215
 - Target: ISO Technical Specification (1st Stage Normative)
- Status:
 - Presented to Work Groups 1 (Data Content) and 8 (EHR Requirements) at TC215 Meeting, 18-21 October, Durham, NC
 - Accepted as Preliminary Work Item by full TC215 Plenary, per WG1 recommendation
- Next:
 - Submit NWIP with Outline and Slide Set to TC215 Secretariat
 - 30-Day NWIP Ballot, starting mid-November
 - Initial Draft Due Early January 2010
- EHR Interop Leads: Gary Dickinson, Gora Datta

2 – EHR Interop Projects

ANSI HITSP

- Foundations Framework Committee offered Simplification Strategy – based on EHR Interop work – to HITSP (Feb 2009)
- HITSP currently incorporating several aspects of Strategy
- Data Architecture Tiger Team
 - 15 Use Cases: ONC/AHIC (2006-09) + Clinical Research
 - USHIK Registration of All Data Elements (Attributes) + Templates
- Work now underway to reduce 26 Capabilities to ONE (or small handful) = CAP119?
- 2013 Target = Structured Content, Single Container
- HITSP Leads: John Halamka, MD, Ed Larsen, Jack Corley, Bob Dolin, MD, Michael Glickman, Steve Hufnagel, PhD, et al

3A – EHR Interop Projects

HL7 EHRS Functional Model R2

- In Kyoto (May 2009) EHR WG agreed to incorporate EHR Interoperability and EHR Lifecycle Models into EHR System Functional Model Release 2
- Status:
 - EHRS/FM Release 2 Draft Revisions Underway
 - Proposal for EHR IM and LM Model incorporation Complete
- EHRS/FM R2 Leads: Don Mon, John Ritter, Pat Van Dyke, Corey Spears, Lenel James
- EHR Interop Leads: Gary Dickinson, Gora Datta

3B – EHR Interop Projects

HL7 EHRS FM R2 Record Sync

- Cross EHRS Record Synchrony
- OLTP-type Functionality: Bid, Lock, Commit, Unlock
- Status: Draft Prepared/Posted for WG Consideration
- Next: Update EHRS/FM R2, Information Infrastructure
- Leads: Wes Knox, Pat Van Dyke

3C – EHR Interop Projects (Tracking)

RM-ES Profile to EHRS FM R2

- Incorporate Records Management – Evidentiary Support Functional Profile into EHRS Functional Model Release 2
- Explicitly to include Action, Action Record paradigm as per EHR Interoperability and Lifecycle Models
- Status: Underway
- RM-ES Leads: Michelle Dougherty, Harry Rhodes, Reed Gelzer, MD
- EHR Interop: Tracking Only

3D – EHR Interop Projects

EHR Record Meta-Data

- Discussions underway between EHR RM-ES WG, EHR Interop WG and Structured Documents WG
 - Align EHR Record meta-data between EHR Interop and Lifecycle Models, RM-ES Profile and CDA R2/3
 - Apply RM-ES Use Cases
 - Ensure EHRS Functional Model R2 = CDA R3 Meta Data
- Structured Docs WG Lead: Calvin Beebe
- RM-ES Leads: Michelle Dougherty, Harry Rhodes, Reed Gelzer, MD
- EHR Interop Lead: Gary Dickinson

4 – EHR Interop Projects

Clinical Doc Architecture Release 3

- Proposal to resolve five (5) remaining EHR/IM requirements to CDA R3
 - Result of mapping EHR Interoperability Model requirements to CDA R2 Attributes
 - For details, see Implementation Guide for CDA R2, Reference Profile for EHR Interoperability DSTU, published Feb 2008
- Status: Preliminary Proposals Posted to SDWG Wiki
- Next: Draft Formal Proposals
- SDWG Lead: Bob Dolin, MD, Grahame Grieve
- EHR Interop Lead: Gary Dickinson

5 – EHR Interop Projects

HL7 SAEAF

- To consider relationship between
 - SAEAF (Services-Aware Enterprise Architecture Framework)
 - EHR and PHR System Functional Models
 - EHR Interoperability and Lifecycle Models
- Collaboration between Technical Steering Committee, Architectural Review Board, EHR and EHR Interoperability WGs
- Status: In Progress
- Next: Develop integration plan as appropriate
- TSC/ARB Leads: Charlie Mead, Helen Stevens, Paul Boyes, Christine Bester, RN
- EHR Interop Leads: Gora Datta, Wes Knox, Gary Dickinson

6A – EHR Interop Projects – 2011 “Meaningful Use” Quality Reporting

- Based on US HIT Standards Committee recommendations for quality and performance measurement and reporting
 - Including diabetes, cancer screening, mammography...
- As per Alignment Analysis, show coverage & gaps WRT
 - Functions of EHR and PHR System Functional Models
 - Relevant requirements of EHR Interop and Lifecycle Models
 - EHR Record content requirements
- Status: Planning Underway
- Next
 - Review collection, capture, filtering, analysis and reporting requirements for each proposed measure
 - Identify gaps in process and information
- Leads: Kim Salamone, Gora Datta

6B – EHR Interop Projects

HL7 Diabetes Use Case

- Collaboration between HL7 EHR and Patient Care WGs, Clinical Interoperability Council and others
- Agreed Project Scope specifies EHR Interoperability Use Case Templates (as employed in ONC/AHIC Use Case analysis) in parallel with HL7's DAM, DIM approach
- Status: Use Case Templates and examples offered to Diabetes Team and discussed on several Team calls
- Next: Build Out Use Case Scenarios, Events and Actions in Template, associating Data (elements, templates) with each (Action)
- Leads: Don Mon, PhD (EHR WG), William Goosen, MD (Patient Care WG), Crystal Kallem (Clinical Interoperability Council)
- EHR Interop Leads: Gary Dickinson

EHR Interop Projects

Summary

- 1A Joint Interoperability Council
- 1B ISO TC215 – “Standards Convergence” Work Item
- 2 ANSI HITSP – Simplification, Convergence of Capabilities
- 3 HL7 EHR System Functional Model Release 2
 - 3A Interoperability and Lifecycle Models
 - 3B Record Synchrony
 - 3C Records Management/Evidentiary Support
 - 3D Record Meta-Data
- 4 HL7 Clinical Document Architecture Release 3
- 5 HL7 Services-Aware Enterprise Architectural Framework (SAEAF)
- 6A Quality Reporting – 2011 Meaningful Use Criteria
- 6B HL7 Diabetes Use Case

EHR Interoperability WG

Reference Point

[http://wiki.hl7.org/index.php?title=EHR Interoperability WG](http://wiki.hl7.org/index.php?title=EHR_Interoperability_WG)