

# HL7 EHR Interoperability WG Project Planning

Facilitators:

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## 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 – 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 – 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

## EHR Interop Projects

# Joint Initiative Council

- Convened Jointly by ISO TC215, CEN TC251, HL7, CDISC, IHTSDO
- Following recommendation from JIC Co-Chairs (Don Newsham and Melvin Reynolds, April, Edinburgh, Scotland)
  - With new title, will submit EHR Interop WG's Simplification Strategy as ISO TC215 New Work Item Proposal (NWIP)
- Status: NWIP in Draft
- Next: Submit NWIP to ISO TC215
- Leads: Gary Dickinson, Gora Datta

# EHR Interop Projects

## ISO TC215

- Title: “Standards Convergence to Promote EHR Interoperability”
- ISO New Work Item Proposal (Form 4) to TC215
  - Work Groups 1 (Data Content) and 8 (EHR Requirements)
- Status:
  - Slide presentation to Joint WG1/WG8 Session in Edinburgh (April 2009)
  - Recent Correspondence with WG1 and WG8 Convenors affirming intent to submit NWIP
- Next: Submit NWIP at TC215 Meeting in Durham, NC, 18-21 Oct
- TC215 Leads:
  - Julie Richards (Interim WG1 Convenor)
  - Marion Lyver, MD (WG8 Convenor)
- EHR Interop Leads: Gary Dickinson, Gora Datta



# 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

## 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 Interoperability Model incorporation Complete
- Next: Proposal for EHR Lifecycle Model Incorporation
- EHRS/FM R2 Leads: Don Mon, John Ritter, Pat Van Dyke, Corey Spears, Lenel James
- EHR Interop Leads: Gary Dickinson, Gora Datta, John Ritter

## EHR Interop Projects

# HL7 EHRS FM R2 Record Sync

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

## EHR Interop Projects

# HL7 Records Mgmt/Evidentiary...

- Discussions underway between EHR WG Records Management/Evidentiary Support 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
  - Review Use of CDA R2/R3 as Persistent Record Object (Container) per requirements of EHR/IM, EHR/LM and RM-ES Profile
- If CDA R2/R3 not Appropriate for Persistent EHR Object, What?
- SD Lead: Calvin Beebe (Structured Docs WG)
- RMES Leads: Michelle Dougherty, Harry Rhodes, Reed Gelzer, MD
- EHR Interop Lead: Gary Dickinson

## 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
  - See Implementation Guide for CDA R2, Reference Profile for EHR Interoperability DSTU, published Feb 2008
- Status: Preliminary Proposals Posted to SDWG Wiki
- Next: Submit Formal Proposals
- SDWG Lead: Bob Dolin, MD, Grahame Grieve
- EHR Interop Lead: Gary Dickinson

## 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: Gary Dickinson, Gora Datta

## EHR Interop Projects

# HL7 Diabetes Use Case

- Collaboration between HL7 EHR and Patient Care WGs, Clinical Interoperability Council and others
- Agreed Project Scope specifies using EHR Interoperability Use Case Templates (as employed in ONC/AHIC Use Case analysis) in addition to HL7's DAM, DIM approach
- Leads: Don Mon, PhD (EHR WG), William Goosen, MD (Patient Care WG), Crystal Kallem (Clinical Interoperability Council)
- Status: Use Case Templates and examples offered to Diabetes Team and discussed on several Team calls

## EHR Interop Projects

# HL7 Diabetes Use Case, con't

- Next
  - Build Out Use Case Scenarios, Events and Actions in Template
  - Associating Data (elements, templates) with each (Action)
- For example, Use Case might have the following Scenarios:
  - Perform clinical encounters (capture source data to EHR)
  - Filter, extract and aggregate data (from EHR)
  - De-identify data extract, as appropriate
  - Transmit data extract to researcher
  - Analyze data as part of clinical research study



# EHR Interop Projects – US HIT Standards Committee

## Quality Reporting Use Case

- 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: Plans Underway
- Next
  - Devise Use Case example
  - Perform sketch analysis, using EHR Interop Use Case templates
- Leads: Kim Salamone, Gora Datta

## EHR Projects – US HIT Standards Committee

# Quality Reporting Use Case, con't

- For example, Use Case might have the following Scenarios:
  - Perform clinical encounters (capture source data to EHR)
  - Filter, extract and aggregate data (from EHR)
  - De-identify data extract, as appropriate
  - Transmit data extract to relevant entities

# EHR Interoperability WG

## Continuing Discussions

- US HIT Standards Committee  
(Jonathon Perlin, MD, John Halamka, MD)
- US National eHealth Collaborative  
(John Tooker, MD)
- US National Institute for Standards and Technology  
(Lisa Carnahan)
  - Convergence, Commoditization, Massive Re-Use
  - Of Process and Information Artifacts
- European Commission Mandate 403 on eHealth Interoperability  
(Kees Molenaar, Melvin Reynolds, Charles Parisot, Georg Heidenreich)
- Canadian Health Infoway  
(Dennis Giokas, Ron Parker)
- UK National Health Service – Connecting for Health  
(Ken Lunn, Steve Bentley, MD)
- Standards Australia  
(Richard Dixon-Hughes, MD)

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)