



The Office of the National Coordinator for
Health Information Technology



S&I Framework Update

HIT Standards Committee

September 18, 2013

Dr. Doug Fridsma
Chief Science Officer
Director, Office of Science and Technology

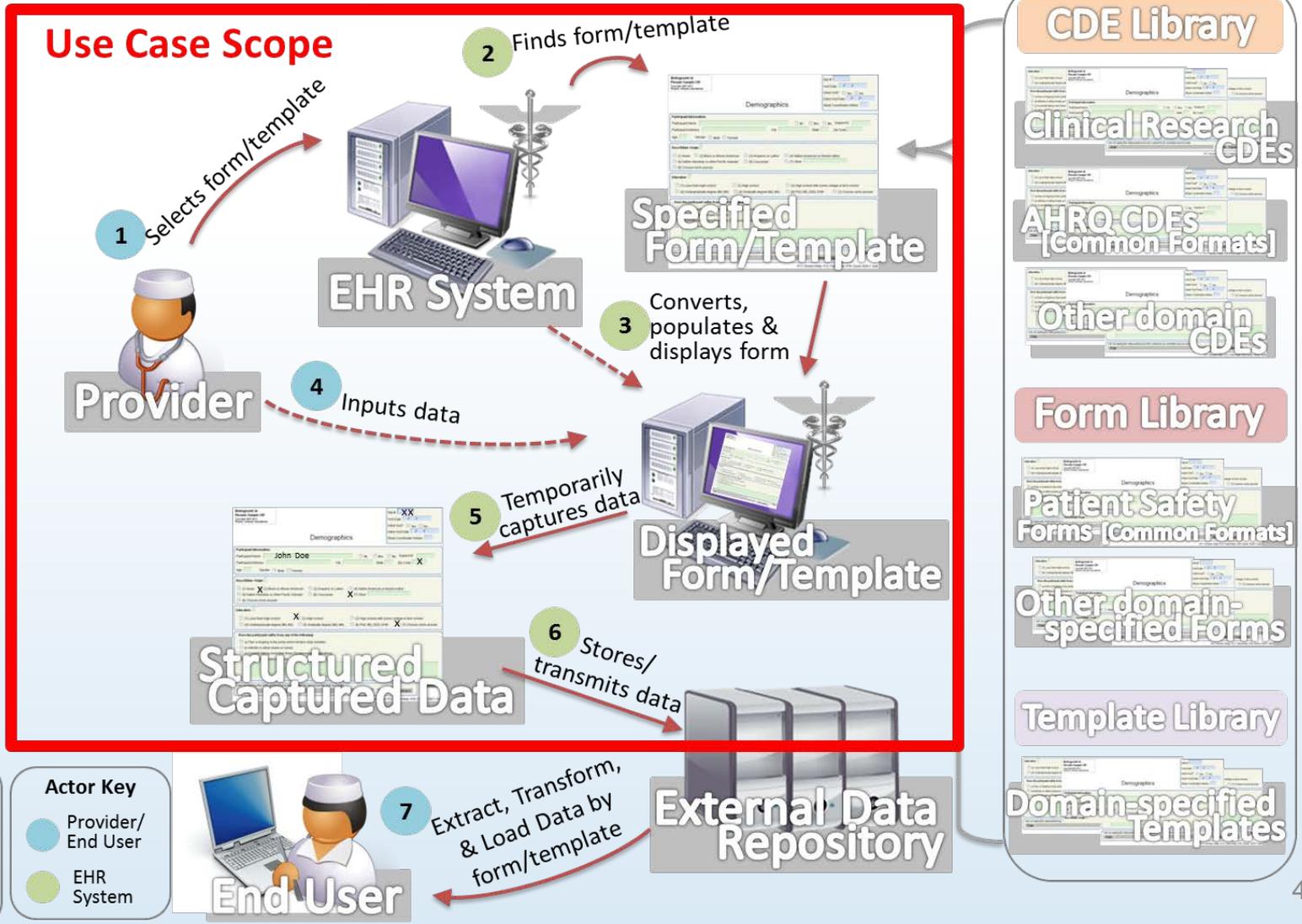
- Current S&I Priorities
- Update on Structured Data Capture and Data Access Framework initiatives
- “Three Buckets” Prioritization Discussion
- Questions/Discussion

- Short-term Priorities (0-6 months)
 - *SDC*
 - *Query Strategy & Query Basics (DAF)*
 - *APIs*
 - *Quality & CDS*
- Mid-term Priorities (6-12 months)
 - *SDC*
 - *Query Strategy & Query Basics (DAF)*
 - *APIs*
 - *Quality & CDS*
- Long-term Priorities (12+ months)
 - *SDC*
 - *Targeted Query (DAF)*
 - *EU-US eHealth Cooperation*

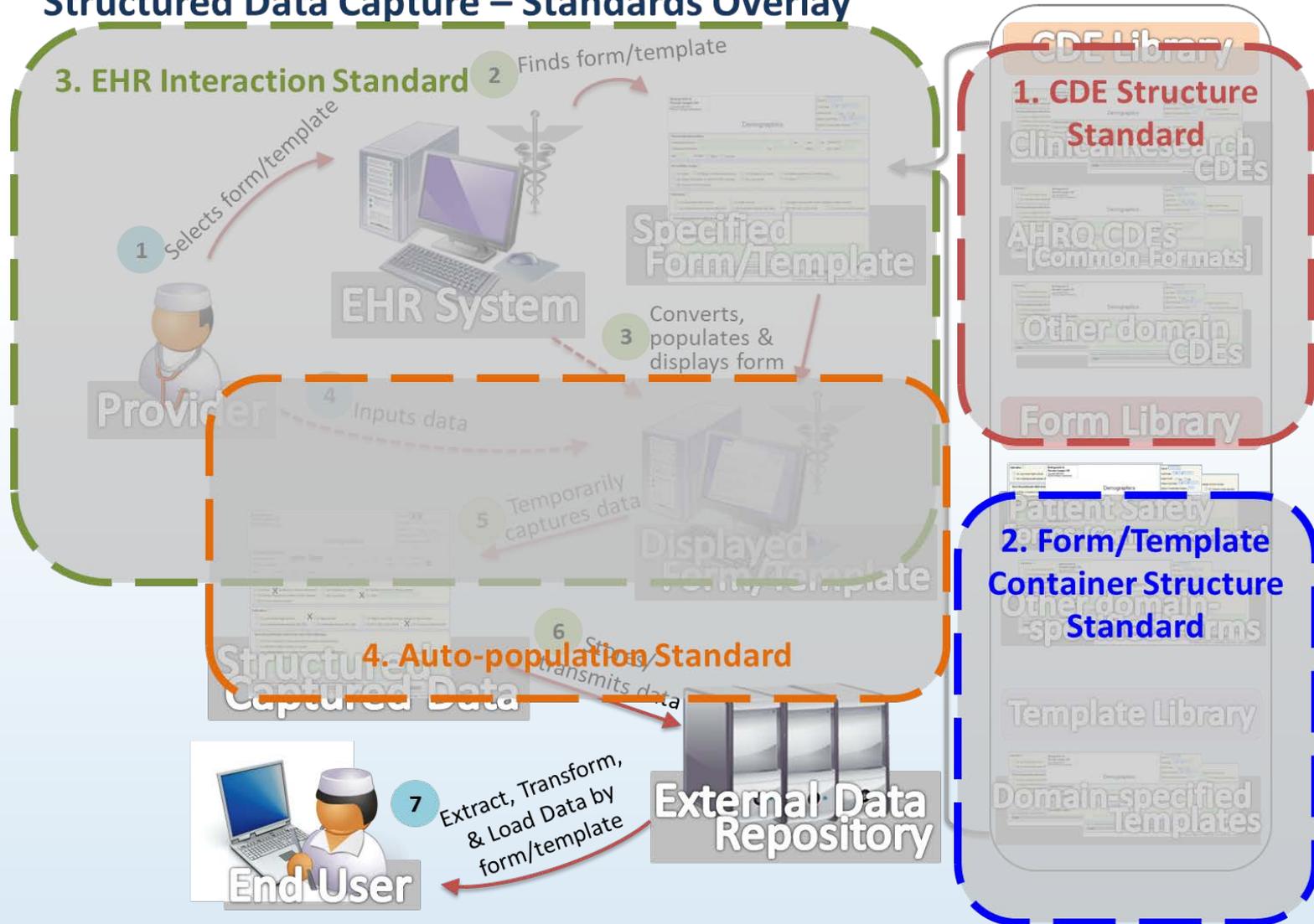
Charter/Scope Summary

- Initiative Scope: The SDC Initiative will provide an infrastructure to standardize the capture and expanded use of patient-level data collected within an EHR.
- The Use Case focuses on the generic functionality required to access a form or template, generated by a CDE, form, or template library, displayed in an EHR system and saved/stored in a structured, standardized format sent to an External Data Repository
 - Identified Content Work stream SWGs
 - Patient-Centered Outcomes Research (PCOR) (NLM)
 - Common Formats (AHRQ)
 - Public Health
 - Technical Work stream SWG focused on development of four guidance areas:
 - CDE Attributes
 - Form/Template Structure
 - EHR-Interaction
 - Auto-population

Structured Data Capture – Use Case Scope



Structured Data Capture – Standards Overlay



Current Status

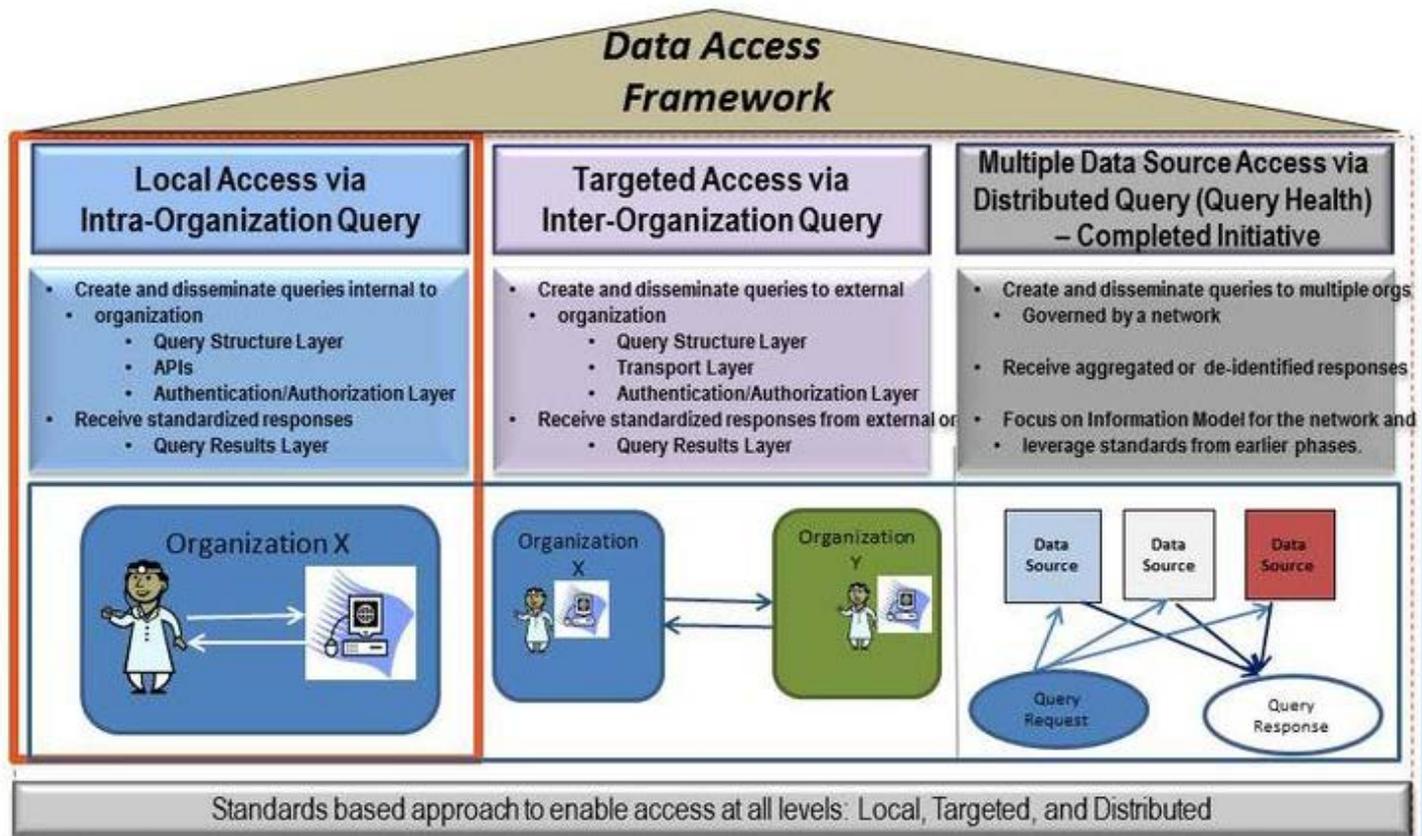
- Two Implementation Guides are targeted for development based on REST/OAuth & SOAP/SAML
- Technical work streams:
 - Forms SWG kickoff was 6/5 - Led by AHRQ, NLM – *Currently drafting relevant IG sections for incorporation*
 - Standards SWG kickoff was 7/11 – *Selected standards recommendations transitioned to IG development as of 8/29*
- Standards solution plan has gone through consensus and will be established after the publication of the IHE ITI Volume 10 Framework with updates made to the IHE RFD Profile
- Public Health SWG is undergoing User Story review
- Pilot Outreach to EHR vendors is currently ongoing and includes GE, Greenway, QuadraMed

Charter/Scope Summary

- The value of the DAF initiative will be demonstrated through two work streams that enable providers to access their own patient's data both locally within their organization and also access data from an external organization.
 - **Local Data Access:** A standardized way for providers to access their own patient(s)' data within the health organizations internal Health IT system
 - **Targeted Data Access:** A standardized way for providers to access a *known* individual patient's data from an external organization
- The Initiative will leverage existing industry standards to create a framework that demonstrates modularity and substitutability for a limited set of standards combinations based on identified business requirements of the community.

The Data Access Framework will be built incrementally by first focusing on Local Access via Intra-Organization query and then Targeted Access via Inter-Organization query. Finally, Multiple Data Source Access via Distributed Queries is a future goal but not-in-scope for this initiative. This incremental path and focus areas are shown in the figure below.

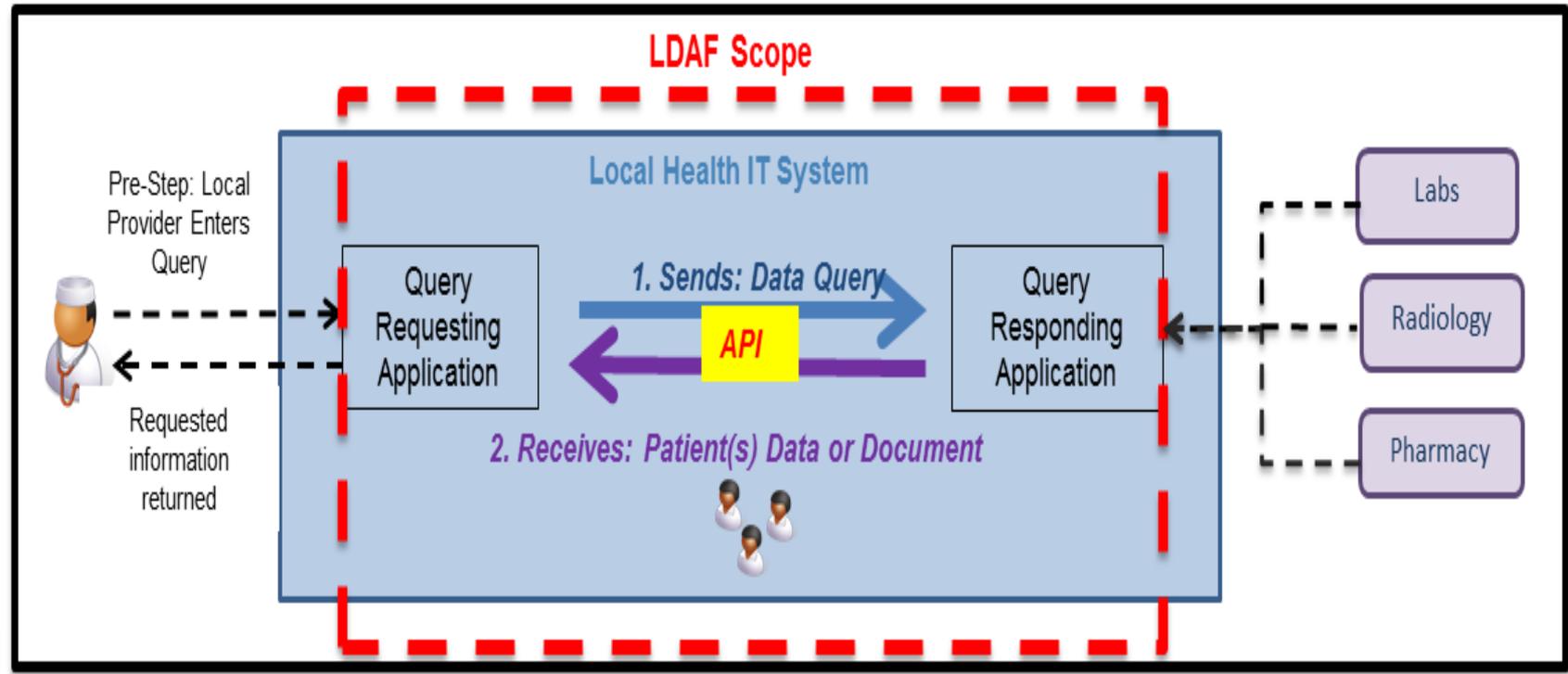
Note - The initiative is currently focusing on defining the Use Case for Local Access



Note: An organization can be a hospital that is part of larger organization and can also include HIEs, RIOs, other types of organizations etc.

Local Data Access Context Diagram

The Local Data Access Use Case focus will be on enabling a standardized way for providers to access already documented patient data within the organization. The data can be accessed based on a specific clinical criteria (HbA1C >8%) or document metadata (Document type, author, date created), both at the individual patient and population level.



Current Status

- The initiative launched on 7/16 and achieved Charter consensus on 8/28
- Kicked off Local Data Access Use Case discussions on 8/14 and launched User Story SWG on 8/29
- Currently, the community is reviewing close to a dozen User Stories and prioritizing key ones for inclusion in the Use Case. *Some* examples of User Stories are listed below:
 - Patient Portability – Patient able to request data from provider to take with them when moving across states
 - Utilizing external 3rd party analytics tools – Providers able to access multiple patient data in a structured document format to then complete further analysis using an analytics 3rd party tool
 - PCP querying lab data results over past 12 months for a patient whose HbA1c is >7%
- Drafting IHE Short Proposal to submit to the ITI committee for both Local and Targeted Data Access work streams. The short proposal deadline is soon approaching on 9/29
- The Targeted Data Access work stream will be working on Use Case development from late October - December 2013

Three Buckets: HITSC Workplan Activities

Topic	Topic Description and Notes	Status	Priority Level (i.e., Bug Fix, Urgent Priority or Aspirational)
Lab Orders	Content Gaps (Lab Orders)	Clinical Operations WG reported out during June HITSC	
Digital Signature	Standards Supporting Digital Signature	CMS presented to HITSC on July 17	
Image Exchange	Standards to support image exchange	Assigned to the Clinical Operations WG	
Data Transport	Additional standards to support transport of data to and from patients	Transport standards were overviewed in June HITSC meeting	
Terminology	Content Gaps (Terminology)		
Securing Data at Rest	Standards for securing data at rest, especially genomic data and consumer downloads		
Parsing and record sharing	Improvements to standard to facilitate unambiguous parsing, longitudinal record sharing, and bulk record sharing		
Advanced Directives	Standards to record advanced directives/care preferences		
APIs	Standards for application programming interfaces supporting modular application integration		
Quality reporting and measurement	Standards which support flexible platforms for measuring and reporting quality		
CDS	Standards for clinical decision support, both knowledge representation and application programming interfaces (APIs) for query/response to knowledge resources		
Defect Reporting	Standards which support defect reporting to PSOs		
Registry Support / SDC	Standards needed for registry support including structured data capture and transmission to third party repositories		
Referral Workflow	Standards to support closed loop referral workflow		
Record Locator Services	Standards which support Record Locator Services		

Three Buckets: S&I Current Activities and MU



MU Category →	Care Coordination		Improve Quality		Engage Patients & Family		Population Health	
S&I Framework Initiative ↓	Topic	Priority (i.e., bug fix, urgent priority or aspirational)	Topic	Priority (i.e., bug fix, urgent priority or aspirational)	Topic	Priority (i.e., bug fix, urgent priority or aspirational)	Topic	Priority (i.e., bug fix, urgent priority or aspirational)
ToC/LCC	<ul style="list-style-type: none"> •Summary of Care (SGRP303) •Referral Reports (SGRP305) •Interdisciplinary Problem List (SGRP127; future state) •Care Plan (SGRP304; future) 		<ul style="list-style-type: none"> •New demographics (SGRP104) •Advanced Directive (SGRP112) •Family History (SGRP119) •Transition Orders (SGRP130; future) 		<ul style="list-style-type: none"> •Review patient transmitted information (VDT) (SGRP204A) •Patient generated data and requesting amendment (SGRP204B/D) •Pertinent Clinical Summaries (SGRP205) 			
LRI/LOI/eDOS			<ul style="list-style-type: none"> •Structured lab results (from MU2; potentially retire but leave as cert criteria) •Computerized Order Entry 					
QH			<ul style="list-style-type: none"> •Query for Records (IEWG101) 				<ul style="list-style-type: none"> •Case Reports (SGRP402B, future) •Adverse event reporting (SGRP408, future) 	
HeD			<ul style="list-style-type: none"> •Consume external CDS (SGRP113) •CDS for medication allergies (SGRP107) 				<ul style="list-style-type: none"> •Immunization CDS (SGRP107) 	

Three Buckets: Potential New S&I Initiatives



National Priorities	Use Cases/Initiatives	Textual Description	MU Requirement	Related FACA Activities	Priority Level (i.e., Bug Fix, Urgent Priority or Aspirational)
Clinical Care/Patient Safety	Medication Management	Enable EHR to implement alerts to newer event rules provided by external source, to perform formulary checks and to obtain medication history from PDMP	SGRP101: Consume external "never" DDI	Formulary downloads identified as content gap to be addressed within HITSC WP	
	Reconciliations	Enable EHR to implement alerts to newer event rules provided by external source, to perform formulary checks and to obtain medication history from PDMP	SGRP302: Contraindications		
Consumer Empowerment	Patient Notices/ Communications	Enable EHR to review consumer to provide data and requests for amendments and to send problem specific summaries. Enable EHR to provide and receive notice of health events for a patient.	SGRP204B/D: Patient generated data and requesting amendment SGRP112: Advanced directive support	Transport of data to/from patients and advanced directives in HITSC WP	
Care Coordination	Patient Information Queries (part of new Query Framework)	Enable an EHR to request patient identity, consents, advance directives and clinical information from a system	IEWG101: Query for patient information	Advanced directives and quality-improving queries included in HITSC WP	
			SGRP112: Query for patient information (including advance directive)		
	Care Management Medical Record	Enable an EHR to support care transition orders and summaries and participate in multidisciplinary problem lists and care plans shared among multiple provider systems	SGRP127: Multidisciplinary problems list	Longitudinal record sharing included in HITSC WP	
			SGRP130: Transition orders in C-CDA		
			SGRP303: Summary of care for transitions		
Referrals	Enable an EHR to create and send a referral report to requestor (close loop). Enable an EHR to query for clinical trials based on a patient's diagnosis, condition, stage.	SGRP304: Multidisciplinary shared care plan	No related agenda item in HITSC WP		
		SGRP305: Referral Reports			
Infrastructure for IHE	Medical Device	Enable an EHR to receive structured, standardized data from selected medical devices including home monitoring devices	SGRP204B: Medical Device Data	No related agenda item in HITSC WP	

Three Buckets: Current S&I Ballots in Process



Initiative name	Primary HL7 Workgroups	Related ballot(s)	Description	Priority Level (i.e., Bug Fix, Urgent Priority or Aspirational)
Health eDecisions	Clinical Decision Support	HL7 Version 3 Standard: Decision Support Service (DSS), Release 2	Updated decision support service (DSS) standard containing revisions related to HeD UC2.	
		HL7 vMR-CDS Logical Model, Release 2 Version 2.0– Universal Realm	Explains the use of the Virtual Medical Record (vMR) for Clinical Decision Support (CDS) and updated based on Health eDecisions initiative along with feedback from TSC Content review task force.	
		HL7 vMR – CDS XML Implementation Guide, Release 1 Version 2.0– US Realm	Provides guidance on how to implement the semantics of the vMR Logical Model in an XML format and updated based on Health eDecisions initiative along with feedback from TSC Content review task force.	
		HL7 DSS Implementation Guide, Release 1, Version 1.0 – US Realm	New implementation guidance developed by Health eDecisions initiative that informs the use of the DSS standard in obtaining CDS service from an external CDS provider using both SOAP and REST platforms.	
		HL7 vMR-CDS Templates, Release 1 Version 1.0V – US Realm	New implementation guidance developed by Health eDecisions initiative that specifies the vMR data elements to use in various scenarios along with value restrictions utilizing clinical templates.	
Electronic Submission of Medical Documentation	Structured Documents <i>and</i> Attachments	HL7 Implementation Guide for CDA® Release 2: Digital Signatures and Delegation of Rights, Release 1	This project proposes an effort to identify the means to apply a digital signature — and where appropriate, delegation of rights artifacts — to a CDA document to satisfy requirements for provenance of the document for administrative purposes.	
Transitions of Care	Structured Documents	HL7 Implementation Guide: S&I Framework Transitions of Care Companion Guide to Consolidated-CDA for Meaningful Use Stage 2, Release 1	This companion guide, developed by the ToC initiative, provides clear guidance to the healthcare community for the implementation of 2014 Ed. CEHRT criteria requiring HL7 Consolidated CDA.	
Longitudinal Coordination of Care	Structured Documents <i>and</i> Patient Care	HL7 Implementation Guides for CDA Release 2: Consolidated CDA Templates for Clinical Notes, DSTU Release 2 - US Realm	This ballot describes updates to the Consult Note and new templates for CCDA including the Referral Note, Transfer Summary and Care Plan document types.	

Thank you to the OST Standards Team, S&I Support Team, S&I initiative coordinators and the S&I community for all their hard work and efforts!

ONC website:

www.healthit.gov/

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S&I Framework Wiki:

<http://wiki.siframework.org/>

 **S&I FRAMEWORK**