The Office of the National Coordinator for Health Information Technology

Update on S&I Framework Initiatives

Health IT Standards Committee

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Todays' Agenda

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- Discussion re: Standards in the Final Rule
  - Review current adopted standards
  - Vocabulary issue with ToC
  - Dental Vocabularies
- Update on newest S&I Initiatives
  - Health eDecisions
  - Automate Blue Button Initiative

S&I Initiative Portfolio Snapshot

AUTHOR'S NOTE: This snapshot describes the various initiatives that are currently in process as part of the S&I Framework and details their progress. Today I'm going to focus my update on our newest initiatives, Health eDecisions and Automate Blue Button.

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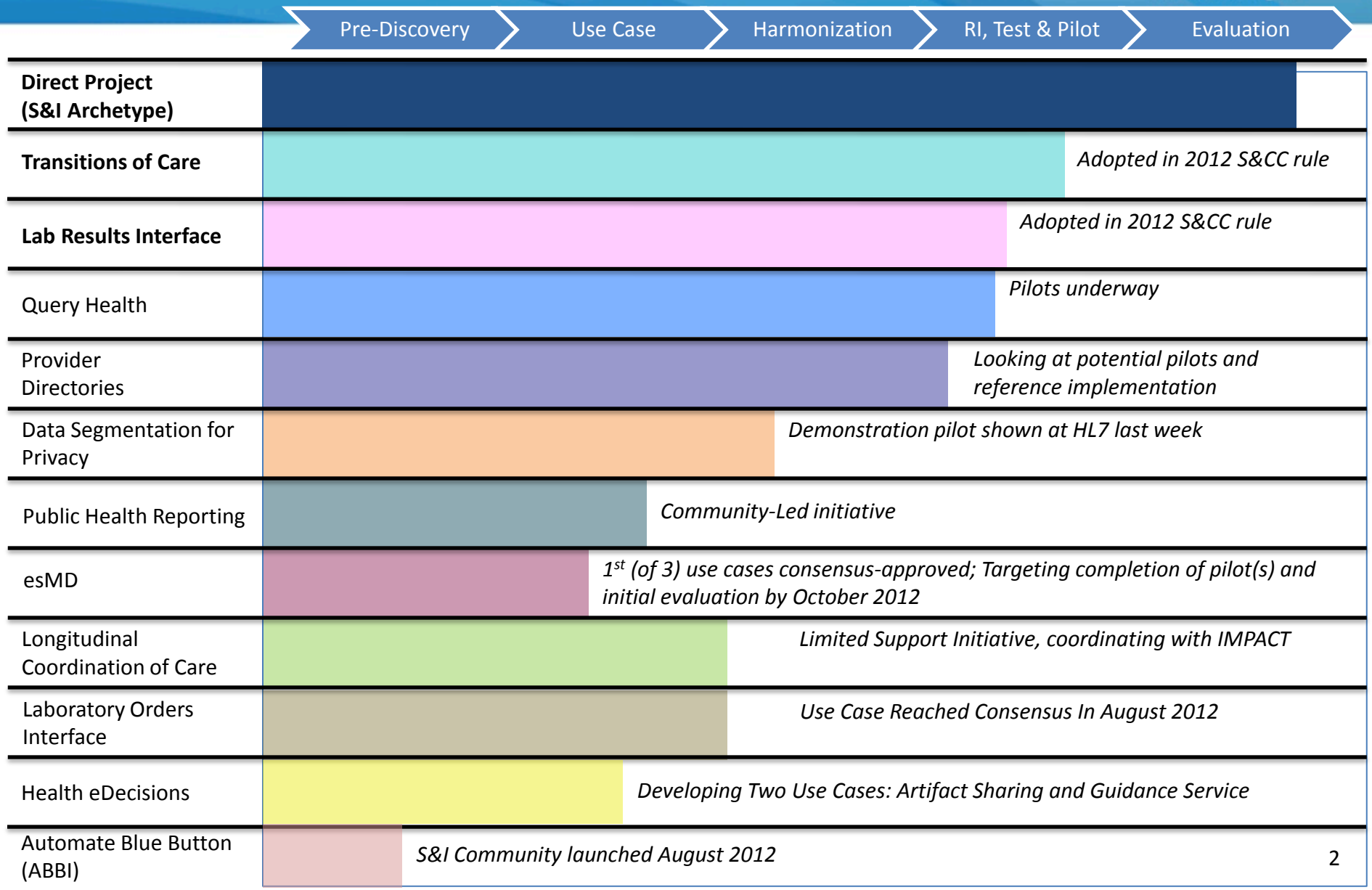

Health eDecisions: A Brief History

- Barriers exist to the adoption and implementation of Clinical Decision Support despite research demonstrating effectiveness in improving quality and safety
- Lack of widely accepted, implementable standards for importing and/or sharing proven CDS interventions (reminders, order sets, documentation templates)
- ONC and AHRQ have invested in multiple research projects such as GLIDES, CDSC, ACDS, SHARP and eRecs to advance CDS implementation, sharing and adoption
- At the April 2012 Face 2 Face Meeting, stakeholders gathered from across the vendor, academic, and healthcare communities to discuss how to advance the shareability of CDS interventions and build on the research and existing standards to date

Health eDecisions Project Charter
Scope Statement

- To identify, define and harmonize standards that facilitate the emergence of systems and services whereby shareable CDS interventions can be implemented via:
  - Standards to structure medical knowledge in a shareable and executable format for use in CDS, and *(Use Case 1 – CDS Artifact Sharing)*
  - Standards that define how a system can interact with and utilize an electronic interface that provides helpful, actionable clinical guidance *(Use Case 2- CDS Guidance Services)*
- In order to facilitate integration of a system with CDS interventions, the scope includes standards to refer to data in electronic health records and standards to map recommendations to locally implementable actions.
- Prioritizing Community Efforts: Use Case one will be the focus of the community participants first. Use Case two efforts will kick off in January 2013.

Health eDecisions Project Charter Target Outcomes

- Repositories or catalogues can emerge, supplied by a range of content creators such as societies or content vendors, whereby CDS artifacts can be selected and imported into HIT systems
  - Each intervention will represent a standardized expression of a guideline that can be accessed by EHR system developers and users to simplify the process of incorporating guidelines into EHRs
- Clinical Decision Support Services can interact with EHRs and/or other Health Information Technology implementations
- Alignment with other S&I Initiatives, e.g., Query Health (HQMF) as well as Meaningful Use objectives

Philosophical Approach

- **Pragmatism**
  - We are focused on proposing a standard that is readily implementable by most CDS artifact providers and CDS implementers in today's healthcare market
- **Portability of Artifacts, not Execution**
  - The "HeD artifact sharing" standard (Use Case 1) will not dictate the features of a CDS execution environment
- **Extensibility**
  - The proposed standard is a starting point to build forward upon
  - For CDS artifact sharing – we are focused on Event-Condition-Action rules, Order Sets, and Documentation Templates
- **Alignment**
  - Targeting a common approach for elements that are common across different CDS artifact types
  - Event-Condition-Action Rules, Order Sets, and Documentation Templates
  - By focusing on 3 commonly utilized artifact types, it is possible to identify those common components

Relevant Standards/Models

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- ArdenML
- Arden Syntax
- AHRQ eRecommendations Format
- CDSC L3
- CREF
- GELLO
- GEM (Guideline Elements Model)
- HITSP C32
- HL7 Care Record
- HL7 CCDA (Consolidated Clinical Documentation Architecture)
- HL7 Decision Support Service (DSS) Specifications
- HL7 Context Aware Information Retrieval (InfoButton)
- HL7 Model Interchange Format
- HL7 QRDA (Quality Reporting Documentation Architecture)
- HL7 Virtual Medical Record (vMR) data model
- HL7 Order Set model
- HQMF
- IHE Care Management Profile
- IHE Retrieve Clinical Knowledge Profile (Profile for InfoButton)
- IHE RFD (Retrieve Clinical Format for Data Capture)
- IHE RPE (Request for Procedure Execution)
- IHE Request for Clinical Guidance Profile (an implementation of HL7 DSS)
- IHE Sharing Value Sets
- NQF Value Sets

Progress to Date/Next Steps

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- **Progress to Date:**
  - Use Case & Functional & Data Element Requirements have been defined
  - The community participants submitted their consensus votes this week
    - The goal is to finalize the Use Case & Functional & Data Element Requirements during today's HeD All Hands Meeting which will occur from 11:00 AM – 12:30 PM ET.

- **Next Steps:**
  - The community participants will move into the Standards Harmonization next week
    - Data elements participants have already heavily leveraged existing models and standards to arrive at required data elements
    - Based on analysis, a new format will be proposed: Name Standard
    - Modeling team participants are building a proposed format that incorporates best of existing standards/models as inputs and meets data elements requirements
    - As each artifact type is modeled, they will be piloted for refinement and implementation guide development

Proposed Timeline for HeD Artifact Sharing Standard

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Activity	Target Schedule
Present Project and Scope Statement to CDS WG	September 2012
Complete Analysis, Design, and Draft Specification Work	September-November 2012
Submit Notice of Intent to Ballot	October 2012
Conduct at Least 2 Pilots of Intended Specification	October 2012 – January 2013
Submit for Comment only Ballot	December 2012
Consider Comments from Comment-only Ballot	January 2013 WGM – February 2013
Submit Notice of Intent to Ballot	February 2013
Submit for DTSU Ballot	April 2013
Consider Comments from DTSU ballot	May 2013 WGM
Submit to TSC for DTSU approval	May 2013 WGM

Automate Blue Button Initiative

- New S&I Initiative, launched August 15
  - Building off VA's work with Blue Button, which has extended to EHR vendors, CMS, UnitedHealth Group, Aetna, etc.
  - Centerpiece of ONC's "Consumer Health IT Pledge Community"

- Scope: Consider standards and specifications that will facilitate consumer-mediated exchange of patient health information
  - Move from ASCII text file to standardized structures
  - Move from one-time download to "automated" download, via V/D/T and/or restful approaches

- Aug 22-Sept 5: Reviewed charter and proposed workgroups

- This week: Three workgroups kicking off
  - Push: *Automating transmission of personal health data to a specific location*
  - Pull: *Allowing a third party application to access my personal health data on demand*
  - Content: *A Blue Button file must be machine-readable and human-readable*

Push Workgroup Overview

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PUSH

Automating transmission of personal health data to a specific "electronic" location

EXAMPLE USE CASES

A patient can specify in a dataholder's system to be sent an updated copy of his/her personal health information as it becomes available.

By patient request, a provider can specify in an EHR that a patient be sent an updated copy of his/her personal health information as it becomes available.

Use of transmit to a 3rd party specific to the MU-2 requirements.

REQUIREMENTS & ASSUMPTIONS

- User (patient or provider) is already authenticated in data holder's system.
- Transport must be secure
- Data that is sent must be both human-readable and machine-readable.

IN SCOPE (TO BE CONSIDERED)

- Existing transport standards, services, and specifications
- Existing content standards
- Frequency of data updates
- Customizable parameters for receiving auto alerts / updates

OUT OF SCOPE (NOT TO BE CONSIDERED)

- ~~Policy concerns and constraints. This initiative will define the mechanism, how and where they apply it will be up to state and local laws~~

Push Discussion

Feedback

- PUSH is a viable goal for ABBI and warrants a workgroup
- Use case could be defined as: *Transmission to a 3rd party, specific to the MU Stage 2 requirements for V/D/T*
  - Strawman for this use case has been posted on the wiki, which builds upon C-CDA, DIRECT, and existing Blue Button guidance
  - Support (and rationale) for this use case has been posted on the Wiki and provided in comments on the calls. Not as an alternative to Pull, but as a viable option for Push.

Current and Outstanding Issues

- Actors: (Initiating/Triggering Push) Patient, Payer, Provider, System
- How to handle the MU-2 timing requirements (e.g. 36 hour turnaround)?
- Does Transmit Use Case require the patient to be digitally identified and trusted?
- Will the Use Case require a provider of record to become an intermediary for patient access to information (and is that desirable)?
- How are permissions set / revoked for “auto” transmission?
  - Frequency of updates
  - Type of updates
  - Duration of updates

Decision Points

Should we focus on the posted strawman?

Are there any alternatives to this strawman that warrant immediate consideration?

Pull Workgroup Overview

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PULL

Allowing a third party application to access my personal health data on demand

EXAMPLE USE CASE

A patient can direct a third party application to have on demand access to his/her personal health information via the internet. The dataholder will ensure this data is made available and follow certain privacy and security standards.

REQUIREMENTS & ASSUMPTIONS

- Data must be transmitted securely
- Patient must give application consent to pull health information from data holder
- Data sent must be both human-readable and machine-readable
- Identify the dataholder requirements

IN SCOPE (TO BE CONSIDERED)

- Authentication, transport, and content standards.
- Leverage REHx project (Oauth, OpenID, and HTTPauth)
- Leverage identity work from NSTIC
- Leverage ToC project
- Leverage lab interface project

OUT OF SCOPE (NOT TO BE CONSIDERED)

- ~~Policy concerns and constraints. This initiative will define the mechanism, – how and where they apply it will be up to state and local laws~~

Pull Discussion

Feedback

- PULL is a viable goal for ABBI and warrants a workgroup
- Discussion of the potential for APIs to be built onto EHR and portals, so that a 3rd-party developer or service could access that data (under the consumer's direction)
- Concerns about dataholders' and EHR vendors' willingness to support PULL (privacy and security risks)

Current and Outstanding Issues

- Digital identification
- Protocols for setting and revoking access
- Consent issues
- Trust or certification of 3rd party applications

Decision Points

- Surface additional issues
- Identify existing standards
- Propose potential use cases

Sub-Group: Content

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CONTENT

A Blue Button file must be both machine-readable and human-readable.

EXAMPLE USE CASES

A patient can download a copy of his/her records and is able to read and print it out.

A patient can point a software or web application to their Blue Button file and it can parse it.

REQUIREMENTS & ASSUMPTIONS

- File must be both human-readable on multiple platforms: PC, Mac, iOS, and Android
- File must be printable
- File needs to be machine readable

IN SCOPE (TO BE CONSIDERED)

- Leverage work done by HL7 and Consolidated CDA
- Leverage work done by the ToC S&I Initiative

CHALLENGES

- A cross-platform file that is self contained.
- Enabling easy-parsing of the file. Should take a developer less than 3 minutes to use.
- Open vs. Licensed standards

Content Discussion

Feedback

- Decision to keep Content as a separate workgroup
- Discussion of the "machine readable and human readable" proposed requirement
- Discussion of the different options for meeting

Current and Outstanding Issues

- Machine readable: Who are our target "consumers" of machine readable content? What do they need to be successful?
- Human readable: What does it mean to be human readable? Is ASCII text sufficient?
- Options that have been proposed:
    - 2 files: ASCII file (XSLT) + C-CDA (XML)
    - 1 file: C-CDA elements in JSON and human-readable styling in CSS
    - 1 file: C-CDA (XML or JSON) (Just machine readable)
    - "Some new standard for Blue Button"
- Discussion of "open source" versus "licensed" options
- What data are we talking about? (open, constrained, etc.)

Decision Points

- Discussion has focused on Provider / EHR data. How do we want to address payor data? Under the same workgroup or separately?

Questions/Discussion

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ONC website:
www.healthit.gov

S&I Framework wiki:
http://wiki.siframework.org