Bridging the Payer - Provider Data Divide: The P2 FHIR Taskforce & HL7 DaVinci Project

Washington, D.C.
November 29th, 2018
ONC Payer + Provider (P2) FHIR Task Force Overview

ONC Annual Meeting
Washington, D.C.
November 29th, 2018
“To ensure the success of the industry’s shift to Value Based Care, there is a need to establish a rapid multi-stakeholder process to identify, exercise and implement initial use cases between payers and provider organizations.”

“The objective is to minimize the development and deployment of unique solutions with focus on reference architectures that will promote industry wide standards and adoption.”

- P2 and Da Vinci Project Founding Members
P2 FHIR Taskforce Overview

**Problem:**
There are ecosystem and infrastructure barriers that prevent the **wide-scale** adoption and deployment of FHIR, for the sharing of clinical data between payers and providers.

**Purpose:**
Through a collaborative effort, the taskforce aims to address such ecosystem barriers and accelerate adoption of FHIR for production exchange of clinical information between providers and payers.
P2 FHIR Taskforce – Goals and Objectives

• Identify and prioritize a list of broad-based architectural, technical or process barriers that are likely to curtail wide scale FHIR deployment for clinical data exchange.

• Develop practical, consensus based, solutions to these barriers that could accelerate adoption.

• Create or identify an existing knowledge sharing process to distribute, update and publish consensus best practice.

• Identify a list of barriers that need regulatory solutions and document same for consideration to regulatory process.

• Conduct demonstration projects between EHR/HIE and payer end points that show value, will scale, and will not require fundamental new standards development.

• Design of a national architecture to enable FHIR based clinical clearinghouse solutions.
Key Ecosystem Issues and Deliverables

Issues
- Identity Management
- Security
- Directory / Scalability
- Exchange Process

Deliverables
- Architecture
- Standards
- Testing and Certification
- Best Practices / Pilots

ONC Payer + Provider (P2) FHIR Task Force
P2 – A Tiger Team Approach

1. **Ecosystem Use Cases** - Create use cases that will assist the rest of the tiger teams in directing their efforts and driving their solutions

2. **Identity** - Identify identity-proofing and patient-matching solutions across multiple types of users

3. **Security** - Identify scalable solutions for security authorization and authentication processes

4. **Directory, Versions, and Scale** - Focus on resource directory solutions and ensuring a process to handle versioning and the anticipated scale of resources

5. **Exchange Process (metadata)** - Focus on common metadata and process conventions

6. **Testing and Certification** - Focus on specification for testing and certification of the requirements defined for identity, security, Endpoint discovery, scaling and exchange process

7. **Pilots** - Identify the pilot models, technology, and participants needed to demonstrate the efficacy of the documentation and approaches created by other tiger teams
P2 Use Case Tiger Team – Initial Brainstorm and Prioritization Results

- Coverage Requirements Discovery (CRD) - 1st
- Alerting - event based (ADT) (needed for VB) - 2nd
- Prior Authorization - 3rd
- 30 day Medication reconciliation - 4th
- Lab Results to support HEDIS reporting - 5th
- Open Gaps (payer sends to provider) - 6th
- ER admit alerts from payer to provider - 7th
- Medical Record per encounter or for a time period - 7th
- Clinical Summary (payer to provider and others) - 9th
- Re-admits, payer alerts provider - 10th
- Data for RAPs (Risk Adjustment Programs) reporting - 11th
- Shared Care Plan (Payer to provider and others?) - 12th
- Explanation of Benefit (EOB) FHIR resource - 13th
- Social Determinants of Health (SDOH) - 14th
- Problem lists - 15th
- Medication adherence notification (provider to payer) - 16th
- Provider Searching - 17th
- Prescription filled notification (payer to provider) - 18th
- Inform PCPs of other Caregivers (Behavioral Health) - 19th
- Complete Claims History (provider request - FHIR Bulk Data Xfer) - 20th
- Provider Directory Information - 21st
P2 Technical Learning Community (TLC)

» Key component to a broader communications / engagement strategy

» To include the following;

– Bi-monthly “newsletter” sent to subscribers of the P2 FHIR TF public list serve

– Quarterly public webinars for P2 FHIR TF updates (with Q&A), and community engagement

– Notifications of opportunities to attend/participate in P2 / Da Vinci related events (i.e. connectathons, hackathons, meetups, workshops, etc.)
Get Involved!

For latest information on the P2 FHIR Taskforce,

Please visit the official P2 FHIR Taskforce Project Page.

Have any further questions/suggestions?

Please contact Stephen Konya (Stephen.Konya@hhs.gov)
Bridging the Payer - Provider Data Divide

Da Vinci Project

November 29, 2018
ANSI Antitrust Policy

ANSI neither develops standards nor conducts certification programs but instead accredits standards developers and certification bodies under programs requiring adherence to principles of openness, voluntariness, due process and non-discrimination. ANSI, therefore, brings significant, procompetitive benefits to the standards and conformity assessment community.

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Approved by the ANSI Board of Directors
May 22, 2014
To ensure the success of the industry’s shift to Value Based Care there is a need to establish a rapid multi-stakeholder process to identify, exercise and implement initial use cases between payers and provider organizations.

The objective is to minimize the development and deployment of unique solutions with focus on reference architectures that will promote industry wide standards and adoption.

Components for success include (and where needed, create extensions to or craft revisions for) common:

1. Standards (HL7 FHIR®),
2. Implementation guides, and
3. Reference implementations and pilot projects to guide the development and deployment of interoperable solutions on a national scale.
Enable provider to see right data at right time for specific patient coverage, benefits and care coordination

Historically, payment and coverage data completely separate from care
Empower End Users to Shift to Value

As a private industry project under HL7 International, Da Vinci will unleash critical data between payers and providers required for VBC workflows leveraging HL7® FHIR®

Source: © 2018 Health Catalyst
Founding Members

Work Underway to Identify Initial Sites by Use Case
2018 Use Case Inventory and Project Deliverables

Project Deliverables

- Define requirements (technical, business and testing)
- Create Implementation Guide
- Create and test Reference Implementation (prove the guide works)
- Pilot the solution
- Deploy the solution

- **Data Exchange for Quality Measures**
- **Coverage Requirements Discovery**
- **Documentation Templates and Coverage Rules**

- **eHealth Record Exchange: HEDIS/Stars & Clinician Exchange**
- **Authorization Support**
- **Gaps in Care**

- **Risk Based Contract Member Identification**
- **Alerts: Notification (ADT), Transitions in Care, ER admit/discharge**
- **Laboratory Results**

*In HL7 ballot reconciliation as draft standard*
*Discovery and requirements underway*
*Proposed 2019 Use Cases*
### Use Case Alignment

<table>
<thead>
<tr>
<th>Quality Measure Collection</th>
<th>Clinical Data Exchange</th>
<th>Pre Order Burden Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Exchange for Quality Measures</td>
<td>eHealth Record Exchange: HEDIS/Stars &amp; Clinician Exchange</td>
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</table>

**Observations**

- Relationships emerging around use cases
- Early use cases create building blocks, incremental improvements
- Currently three categories with expectations others will emerge as we advance and mature existing and add new use cases
2018-19 Membership
Da Vinci Members

Premier Members

Anthem

Blue Cross Blue Shield Association

Blue Cross of Idaho

CAMBIA

OPTUM

United Healthcare

Associates

Allscripts

of Tennessee

Humana

Cerner

Epic

For current membership: http://www.hl7.org/about/davinci/members.cfm
Active Use Cases
<table>
<thead>
<tr>
<th>Stage</th>
<th>Q4 2018 Priorities</th>
<th>2019 Min Investment</th>
</tr>
</thead>
</table>
| 30 Day Medication Reconciliation via DEQM | • Publish  
• Identify Implementers  
• Test | • v2: sync with FHIR STU4  
• Incorporate feedback  
• Extend DEQM for next set of Measures |
| Coverage Requirements Discovery | Ballot Reconciliation & Connectathons | • Publish  
• Identify Implementers  
• CMS Test late Fall | • v2: sync with FHIR STU4  
• Incorporate feedback  
• Add pricing by location functionality |
## 2018 In Flight Use Cases

<table>
<thead>
<tr>
<th>Stage</th>
<th>Q4 2018 Priorities</th>
<th>2019 Min Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>- Finalize scope</td>
<td>- Ballot v1 IG</td>
</tr>
<tr>
<td></td>
<td>- Submit Project Scope Statement</td>
<td>- Connectathons</td>
</tr>
<tr>
<td></td>
<td>- Identify Implementers</td>
<td>- Implementations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- March 2019 CMS Testing</td>
</tr>
<tr>
<td>Discovery</td>
<td>- Identify scenarios and architectural approach</td>
<td>- Ballot v1 for 3 current IGs</td>
</tr>
<tr>
<td></td>
<td>- Get IG work underway</td>
<td>- Connectathons</td>
</tr>
<tr>
<td></td>
<td>- Identify Implementers</td>
<td>- Implementations</td>
</tr>
</tbody>
</table>

### Documentation
- Templates and Coverage Rules

### eHealth Record Exchange
- HEDIS/Stars & Clinician Exchange
Da Vinci 2018 Use Cases – Year 1

Program Start Up
- Dec: Establish Project
- Jan
- Feb
- March

MRP > DEQM
- April: Test Use Case 1 Concepts
- May
- June: Test Use Case 1 & 2 Reference Implementation
- July
- Aug
- Sep: Test Use Case 2 & 3 Concepts
- Oct
- Nov
- Dec: Test Use Case 3 Reference Implementation

DTR
- eHRx

CRD
Sample Project Structure & Timeline

IG Development:
- Assemble Team
- Requirements
- IG Framework
- FHIR Gap Analysis
- Specify profiles, ...
- Create Draft IG
- Revise and Finalize IG
- RI Tech Approach
- Build Initial RI
- Build Data Set
- Build Test Set
- Test RI
- Update Final RI

RI Development:
- Project start

Week 0
- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16

Represents 4 weeks
2-4 sprints

Work with appropriate HL7 workgroup for IG sponsorship and input
Demonstration Projects Recommendation

Payer + Provider + Tools + Reference Implementations + Implementation Guide = TRUE INTEROPERABILITY

Build Your Implementation Organization
DaVinci Data Exchange For Quality

This is a pre-release version (Ballot 1) of Data Exchange For Quality Measures Implementation Guide: STU1 Ballot 1 (for FHIR 3.0.1).
For a full list of available versions, see the Directory of published versions.

Contents:
- Summary
- Background
- How to read this Guide

1 Summary

The purpose of this implementation guide is to support the Continuation Integration Build of the Data Exchange For Quality Measures Implementation Guide, which can be used for multiple use cases in the U.S. Realm.

Interoperability challenges have limited many stakeholders. The dual challenges of data standardization and easy access to create efficient care delivery solutions and effective care coordination have driven the development of this implementation guide.

1.1 Overview

This specification is currently undergoing ballot and conformance testing. It is expected to evolve, possibly significantly, as part of that process.

Feedback is welcome and may be submitted through the FHIR gForge tracker indicating "US Da Vinci CRD" as the specification. If ballots on this IG, please submit your comments via the tracker and just reference them in your ballot submission implementation guide.

This implementation guide is dependent on other specifications. Please submit any comments you have on these base specifications as follows:
- Feedback on CDS Hooks should be posted to the CDS Hooks GitHub Issue List
- Feedback on the FHIR core specification should be submitted to the FHIR gForge tracker with "FHIR Core" as the specification.
- Feedback on the US core profiles should be submitted to the FHIR gForge tracker with "US Core" as the specification.

Individuals interested in participating in the Coverage Requirements Discovery or other HL7 Da Vinci projects can find information about Da Vinci here.

There are a few places in this implementation guide marked as 'ToDo'. All such areas represent supplementary content such as examples, additional background or context or other non-definitive content, i.e. they do not change any of the conformance expectations on implementers. Where ToDo appears, such content will be created and included in the implementation guide prior to publication as a Standard for Trial Use.
Follow Progress, Test, Implement

Find

• Background collateral
• Implementation Guide
  • Balloted Sept ‘18, reconciliation underway
• Reference Implementation
  • HL7 Connectathon participants
  • Publicly available

• HL7 Da Vinci Wiki & Listserv signup -
  http://www.hl7.org/about/davinci/index.cfm

• HL7 Confluence Site -
  https://confluence.hl7.org/display/DVP/

• Data Exchange For Quality Measures (DEQM)
  Implementation Guide STU1 Ballot 1

• Coverage Requirements Discovery (CRD) Implementation
  Guide STU1 Ballot 1

• Reference Implementation Code Repository -
  https://github.com/HL7-DaVinci
<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Stephen Konya</td>
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<td>Da Vinci Partners</td>
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<td>Jocelyn Keegan</td>
<td>Program Manager Da Vinci</td>
<td>Da Vinci Partners</td>
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<tr>
<td>Viet Nguyen, MD</td>
<td>Technical Director Da Vinci</td>
<td>Da Vinci Stratametrics</td>
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<tr>
<td>Patrick Murta</td>
<td>P2 Lead &amp; Da Vinci Operating Member</td>
<td>Humana</td>
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<tr>
<td>Lenel James</td>
<td>P2 Lead &amp; Da Vinci PMO</td>
<td>BCBSA</td>
</tr>
<tr>
<td>Bob Diertle</td>
<td>P2 Lead &amp; Da Vinci PMO/IV&amp;V</td>
<td>Enablecare</td>
</tr>
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</table>
Additional Slides
(for reference, as needed)
Relationship Between Da Vinci & P2 FHIR Task Force

Using FHIR to Solve Payer-Provider and Provider-Provider Interoperability Problems

- Start with a VBC use case (e.g. 30-day medication reconciliation)
- Define the requirements (business, technical)
- Create implementation guide and reference implementation
- Pilot the solution

- Identity management
- Security and authentication
- API discovery
- Scaling solutions
- Content identification and Routing
- Testing and certification
Da Vinci and P2 FHIR Task Force Payer, Provider and HIT vendors

Using FHIR to Solve Payer-Provider and Provider-Provider Interoperability Problems

P2 FHIR Task Force
Scale Solutions Nationally

How can a payer scale this to 30,000 providers serving 3 million members

Payers/Providers

$ HIT Solutions

Da Vinci
Solutions to VBC Use Cases

How can a payer request and receive a response from a provider regarding 30-day medication reconciliation (content and semantics of the messages)

Providers

HIT Solutions
Use Case Details
Patient Information Request – Provider to Payer/Plan

Clinical Actor  Endpoint Capability Actor  Payer Actor

A  B  Provider system needs endpoint

D  C  Endpoint address request

E  Payer Actor

Provider request to payer

Core Capability (CC1) Endpoint Discovery

Core Capability (CC2) Authenticate/Authorize

Provider response

G  Core Capability (CC3) Payer Endpoint Access
30 Day Medication Reconciliation

- Need for provider to attest that Med Rec has been completed post-discharge
- Increasingly required for HEDIS and commercial at risk contracts
- Focus is to compare pre/post medication lists to avoid errors
- Today done through claims processing or manual review of lists

Implementation Guide Shifted to Framework to Support Wider Set of Data for Quality
Use case creates a common framework for quality data exchange

- Enables the exchange of raw quality measure data between quality measurement Teams and Care teams that provide patient care
- Timely exchange of key data is critical to evaluate and capture quality
- Future work will incorporate additional use cases

1. Submit
   - Submit Measure Data
   - OperationOutcome
2. Collect
   - Collect Measure Data
   - Return Measure Data
3. Subscribe
   - Subscribe for Measure Data
   - OperationOutcome
• Providers need to easily discover which payer covered services or devices have
  • Specific documentation requirements,
  • Rules for determining need for specific treatments/services
  • Requirement for Prior Authorization (PA) or other approvals
  • Specific guidance.

• With a FHIR based API, providers can discover in real-time specific payer requirements that may affect the ability to have certain services or devices covered by the responsible payer.

• Response may be
  • The answer to the discovery request
  • A list of services, templates, documents, rules
  • URL to retrieve specific items (e.g. template)
1) Based on a specific clinical workflow event:
   scheduling,
   start of encounter,
   planning treatment,
   ordering,
   discharge

   Provider’s send FHIR based request, with appropriate clinical context to the responsible payer

2) Payer may request additional information from the provider EHR using existing FHIR APIs

3) Payer responds to the EHR with any specific requirements that may impact the clinical decisions or coverage

Provider utilizes this information to make treatment decisions while considering specific payer coverage requirements.
Documentation Templates and Payer Rules

- Providers need to easily incorporate payer requirements into their clinical workflow
  - Specific documentation requirements,
  - Rules for determining need for specific treatments/services
  - Requirement for Prior Authorization (PA) or other approvals
  - Specific guidance.

- Use a FHIR based standard for representing payer “rules” to communicate, in real-time, payer medical necessity and best clinical practice requirements that may affect the ability to have certain services or devices covered by the responsible payer.

- The template/rules may (examples, not complete list)
  - Specify provider documentation requirements for coverage, medical necessity
  - Provide guidance / documentation requirements regarding social determinates that are antecedents for specific care
  - Collect information for some purpose (e.g. authorizations)
  - Indicate clinical requirements including appropriate use
  - Collect specific documentation for Quality Measures
  - Respond with specific information as requested/documented in the template/rules
eHealth Record Exchange

eHRx
**electronic Health Record exchange**
Framework

Interactions and Profiles

DEQM
**Data Exchange for Quality Measures**
Framework

eQDx
**electronic Quality Data exchange**

Additional Measures for DEQM IG

eCDx
**electronic Clinical Data exchange**

ePDx
**electronic Payer Data exchange**