Update on
HL7® Da Vinci Project

EHR Work Group

Viet Nguyen, MD
Chief Standards Implementation Officer, HL7 International
Technical Director, Da Vinci Project
Objectives

• Brief introduction of the HL7® Da Vinci Project
• Overview of Da Vinci Use Cases
• Update status of FHIR® Implementation Guides
• Highlight HIPAA related Da Vinci Implementation Guides
• Identify opportunities for community engagement
To ensure the success of the industry’s **shift to Value Based Care**

**Transform out of Controlled Chaos:**
Develop *rapid multi-stakeholder* process to identify, exercise and implement initial use cases.

**Collaboration:**
Minimize the development and deployment of *unique solutions.*
*Promote* industry wide *standards* and adoption.

**Success Measures:**
Use of FHIR®, implementation guides and pilot projects.
• VBC fundamentally changing relationships between payers, providers across care settings
• Goal is to shift focus on outcomes
• Contracts include exchange of clinical data
• Payers and strategic partners or wholly owned practices becoming “Payviders”
• Mega-acquisitions are bringing Payers and PBMs under single organization
• HL7 acting as a convener of stakeholders to identify ways FHIR can help

Market Influences on Shift to Value

- Provider
- Payers
- Healthcare Directory
- Patient Medical Record
- Referral/Consult
- CDS
- Services (eg, DME, Imaging)
- Public Health
- Research

HL7 FHIR
## Da Vinci 2022 Multi-Stakeholder Membership

### PROVIDERS

- athenahealth
- Cerner
- Epic
- healow | Insights
- veradigm.
- Providence St. Joseph Health
- UC Davis Health
- Texas Health Resources
- Weill Cornell Medicine
- KAISER PERMANENTE

### EHRs

- *Anthem*
- *Blue Cross Blue Shield of Alabama*
- *BlueCross BlueShield Association*
- *Blue Cross of Idaho*
- *Cigna*
- *Centene Corporation*
- *CMS Health*
- *Humana*
- *Independence*
- *UnitedHealthcare*

### PAYERS

- *Availity*
- *CHANGE Healthcare*
- *Cognizant*
- *edifecs*
- *infor*
- *InterSystems*
- *IBM Watson Health*
- *juxly*
- *mcg*
- *ZeOmega*

### VENDORS

- *HIMSS*
- *HL7*
- *NCQA*

### INDUSTRY PARTNERS

*Indicates a founding member of the Da Vinci Project.
Organization shown in primary Da Vinci role. Many members participate across categories.

For current membership: [http://www.hl7.org/about/davinci/members.cfm](http://www.hl7.org/about/davinci/members.cfm)
Da Vinci Implementation Guide Readiness Scale

Overall Maturity

Most Mature
- Active implementations, workflows in place in production. Real world impacts available

Active Growth
- Initial implementations, feedback in process to update IG and RI

Least Mature
- Early adoption, pilot, projects and testing underway. Reference Implementation available

Real World Adoption

Standards Development Progress
- STU3 - Normative
- STU1-2
- Pre STU, build

Regulatory Driver
- In Use/Named In Standard
- Active Deployment
- Early Adopters
Use Case Readiness

Clinical Data Exchange
- Clinical Data Exchange (CDex)
- Payer Data Exchange (PDex)

Coverage, Transparency & Burden Reduction
- Coverage Requirements Discovery (CRD)
- Documentation Templates and Rules (DTR)
- Prior-Authorization Support (PAS)

Quality & Risk
- Data Exchange for Quality Measures inc. Gaps In Care (DEQM/GIC)
- Risk Adjustment (RA)

Formulary
- Plan Net/Directory
- Patient Cost Transparency (PCT)

Foundational Assets
- Member Attribution List
- Notifications
- Health Record Exchange (HRex)

* Referenced in or supports Federal Regulation
◆ Aligned with expected Federal Regulation
○ Dial denotes progress in current STU Phase

Overall Maturity:
- Most Mature
- Active Growth
- Least Mature
# Business Challenge: Patient Access to Data via API

<table>
<thead>
<tr>
<th>Overall IG Readiness</th>
<th>Core Capabilities &amp; Resources</th>
<th>Standards Status</th>
<th>Regulatory Impacts</th>
<th>Implementer Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payer Data Exchange</td>
<td>Enables a health plan to share key clinical data and patient history with application of patient’s choice and with other payers. CMS Interoperability and Patient Access final rule (CMS-9115-F) – enforcement began on July 1, 2021 – use to make patients’ clinical (USCDI) data available via Patient Access API. Payer-to-Payer data exchange effective Jan. 1, 2022 enforcement deferred</td>
<td>STU2 Ballot</td>
<td>Reference in CMS – 91-15 Patient Access API Reg, Effective 7/1/21</td>
<td>High Adoption for regulated plans</td>
</tr>
<tr>
<td>Formulary</td>
<td>Enable payers to share drug estimated cost and information (drug formulary) for patients/consumers applications. Improves clarity of patient cost under current or potential health plan. Improve consumers ability to shop plan coverage better.</td>
<td>STU2 Ballot</td>
<td>Reference in CMS – 91-15 Patient Access API Reg, Effective 7/1/21</td>
<td>High Adoption for regulated plans</td>
</tr>
<tr>
<td>Plan Net/Directory</td>
<td>Enable patient to more easily understand what providers, facilities, pharmacies are in the network covered by the current or potential future plan. Increases transparency of available service providers at patient specific level and allows more frequent updates to active status.</td>
<td>STU1 Published</td>
<td>Reference in CMS – 91-15 Patient Access API Reg, Effective 7/1/21</td>
<td>High Adoption for regulated plans</td>
</tr>
<tr>
<td>Patient Cost Transparency</td>
<td>Provide data exchange standard in support of payers and providers to display cost information to patients in advance of services. ✓ Consolidated Appropriations Act HR-133 (No Surprise Billing) ❏ CMS Transparency in Coverage Final Rule (CMS-9915-F) 1/1/2022 ❏ Hospital Price Transparency – 1/1/2021</td>
<td>STU1 Ballot</td>
<td>Written to address portion of No Surprises Act in expected regulations</td>
<td>IG Test &amp; Reference Implementation available</td>
</tr>
</tbody>
</table>

Main Use Case Page: [https://confluence.hl7.org/display/DVP/Da+Vinci+Use+Cases](https://confluence.hl7.org/display/DVP/Da+Vinci+Use+Cases)
Business Challenge: Reducing Burden of Prior Authorization

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Status</th>
<th>Core Capabilities</th>
<th>Regulatory Impacts</th>
<th>Implementer Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage Requirements Discovery</td>
<td>STU1 Published</td>
<td>Enables exchange of coverage plan requirements from payers to providers at the time of treatment decisions, patient specific with a goal to increase transparency for all parties of coverage that may impact services rendered i.e., is prior authorization required, are there other predecessor steps; lab tests required, physical therapy</td>
<td>Named in the rescinded NPRM CMS Interoperability and Prior Authorization (CMS-9123-P)</td>
<td>Connectathons x 3 years Early adopters and pilots underway</td>
</tr>
<tr>
<td></td>
<td>STU2 Ballot 2022Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation Templates and Rules</td>
<td>STU1 Published</td>
<td>Builds on CRD to specify how payer rules can be executed in a provider context to ensure that documentation requirements are met. Provider burden will be reduced because of reduced manual data entry, i.e., from payers, extract data to pre-populate response</td>
<td>Named in the rescinded NPRM CMS Interoperability and Prior Authorization (CMS-9123-P)</td>
<td>Connectathons x 3 years Early adopters and pilots underway</td>
</tr>
<tr>
<td></td>
<td>STU2 Ballot 2022Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior-Authorization Support</td>
<td>STU1 Published</td>
<td>Defines FHIR based services to enable provider, at point of service, to request authorization (including all necessary clinical information to support the request) and receive immediate authorization from Payer (incorporates HIPAA Tx standards)</td>
<td>Named in the rescinded NPRM CMS Interoperability and Prior Authorization (CMS-9123-P)</td>
<td>Connectathons x 3 years Early adopters and pilots underway</td>
</tr>
<tr>
<td></td>
<td>STU2 Ballot 2022Q1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DRLS = Document Requirements Lookup Service (DRLS) is CMS’ name for the combination of CRD + DTR.
Coverage Requirements Discovery, Documentation Templates & Rules, & Prior Authorization Support

- Improve transparency
- Reduce effort for prior authorization
- Leverage available clinical content and increase automation
Coverage Requirements Discovery, **Documentation Templates & Rules**, & Prior Authorization Support

- **Coverage Requirements Discovery**
  - **CDS Hooks**
  - **FHIR APIs**

- **Documentation Templates and Coverage Rules**

- **PAYER**

*Benefits:*
- Improve transparency
- Reduce effort for prior authorization
- Leverage available clinical content and increase automation
Coverage Requirements Discovery, Documentation Templates & Rules, & **Prior Authorization Support**

- Improve transparency
- Reduce effort for prior authorization
- Leverage available clinical content and increase automation
Coverage Requirements Discovery (CRD)/Documentation Templates & Rules (DTR)

Benefits
Takes guesswork out of patient specific coverage by sharing authorization or process requirements in workflow
Improves transparency of patient and procedure specific rules to provider and patient
Exposes information about patient benefits when care team is most likely with or near patient, so options can be discussed and decided upon
Clinical Data Exchange IG
Implementation Guide

Automates Processes for Provider-Payer and Provider-Provider Clinical Data Exchange

• Workflows supported
  – Referrals
  – Attachments for claim submission
  – Documentation to support medical necessity, coverage rules, claims audits, etc.
  – Supplemental data for Prior Auth, Risk Adjustment and Quality Measures

• Requested data is pre-defined by requestor

• Task-based and direct query approaches executed via FHIR with optional review

• Supports all available FHIR data
  – Documents (e.g. C-CDAs)
  – Laboratory
  – Medications
  – Vital Signs
Clinical Data Exchange (CDex)

1. Payer or External Provider System Initiates Request

2. Provider System Retrieves Data

3. Practitioner Intervention (if required)

4. Provider System Returns Data

Direct Query or Task Based Approach

Task Based Approach

eg. What are the patient’s active conditions?

eg. What are the patient’s HbA1C results after 2020-01-01?

eg. Send the patient’s latest History & Physical
Upcoming Activities

**Burden Reduction CRD/DTR/PAS**

- Ballot in 2022Q1
- Anticipated reconciliation and publishing by 2022Q4

**Clinical Data Exchange CDex**

- Publish STU1 in 2022Q1
- Ballot STU2 in 2022Q1
  - Unsolicited Attachments
- Payer-Provider Clinical Data Request templates
Get Involved!
The Virtuous Cycle of Standards Development and Implementation
Join the Community

Getting Started
1. Register for Confluence
2. Sign up for Listserv
3. Find Implementer Pages
4. Download IGs and Resources
5. Watch for Meetings, Connectathons
6. View Demo and Testimonial Recordings
7. Access Reference Implementation Code, Sandboxes

https://confluence.hl7.org/display/DVP/Da+Vinci+Welcome
### Da Vinci Use Case Working Sessions – Join Us!

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burden Reduction (CRD/DTR/PAS) - Wednesday (formerly DTR and Implementation Support)</td>
<td>Wednesdays at 11am Eastern</td>
</tr>
<tr>
<td>Notifications</td>
<td>First Wednesday of the month at 12pm Eastern</td>
</tr>
<tr>
<td>CDex - Clinical Document Exchange, Health Record Exchange Framework (HRex) is also covered on this call.</td>
<td>Wednesdays at 2pm Eastern</td>
</tr>
<tr>
<td>Member Attribution List (aka: Risk Based Contract Member Identification)</td>
<td>Wednesdays at 3pm Eastern, biweekly starting 1/26/2022</td>
</tr>
<tr>
<td>Risk Adjustment</td>
<td>Thursdays at 3pm Eastern</td>
</tr>
<tr>
<td>Patient Cost Transparency*</td>
<td>Fridays at 11am Eastern*</td>
</tr>
<tr>
<td>Payer Data Exchange (PDex/Formulary/PlanNet)</td>
<td>Fridays at 12pm Eastern</td>
</tr>
<tr>
<td>PDex Formulary STU2</td>
<td>Fridays at 2pm Eastern</td>
</tr>
<tr>
<td>Burden Reduction (CRD/DTR/PAS) - Friday (formerly PAS and Supplemental Examples)</td>
<td>Fridays at 3pm Eastern</td>
</tr>
</tbody>
</table>

*Additional 1 hour per week coming soon*

### Conference Call Sign Up

- **HL7 Conference Call Center** - check the HL7 calendar for cancellations/changes!
- **Da Vinci Conference Call Sign Up Instructions**
- **Note:** There is no invitation, add to your own calendar
Build and Validate With Touchstone

AEGIS Touchstone for Testing. You can:
- Have your own private Touchstone sandbox
- Join the Da Vinci Organization

Step 1: Create a User and join an Organization  
Step 2: Set up your Test System.  
Step 3: Executing Test Setups.  
Step 4: Review your results.

Touchstone provides detailed feedback on the results of your test execution.

Go to: Implementer Support Page:
https://confluence.hl7.org/display/DVP/DaVinci+Implementer+Support
See “Build and Validate with Touchstone” bottom right corner.
• Da Vinci Confluence Page - https://confluence.hl7.org/display/DVP
• Da Vinci Coverage Requirements Discovery - http://hl7.org/fhir/us/davinci-crd/
• Da Vinci Documentation Templates and Rules - https://build.fhir.org/ig/HL7/davinci-dtr/
• Da Vinci Prior Authorization Support - https://build.fhir.org/ig/HL7/davinci-pas/
• Da Vinci Clinical Data Exchange - https://build.fhir.org/ig/HL7/davinci-ecdx/
• CDS Hooks - https://cds-hooks.org/
• SMART App Launch - http://hl7.org/fhir/smart-app-launch/
• Clinical Quality Language - https://cql.hl7.org/
• FHIR US Core - http://hl7.org/fhir/us/core/
Viet Nguyen, MD
Chief Standards Implementation Officer, HL7 International
Technical Director, Da Vinci Project

Viet@hl7.org