FAST Update
Da Vinci Project Update
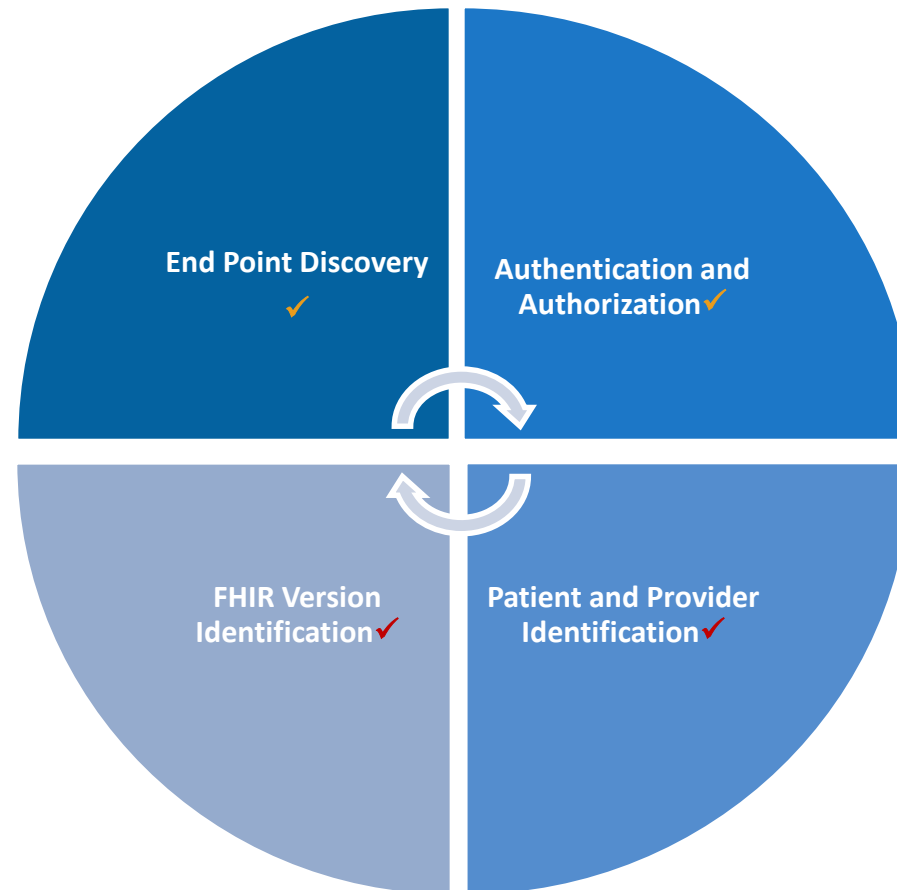# CMS NPRM Requirements

June 13, 2019

Robert Dieterle, CEO EnableCare, LLC

FHIR At Scale Taskforce

The *FAST* Initiative - 10 Ecosystem Use Cases (all completed)

- **Patient Information Request** ✓

- **Documentation Templates and Rules Processing** ✓

- **Event Based Alerts** ✓

- **Quality Reporting** ✓

Core Capabilities

- **End Point Discovery** ✓
- **Authentication and Authorization** ✓
- **FHIR Version Identification** ✓
- **Patient and Provider Identification** ✓

- **Shared Care Planning** ✓

- **Care team coordination** ✓

- **Push Patient Information** ✓

- **Scheduling** ✓

- **Referrals** ✓

✓ **Barrier Use Case**   ✓ **Functional Use Case**   ✓ **Industry Use Case**

FAST FHIR AT SCALE TASKFORCE

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Capability	FAST Tiger Team						FAST Use Case Traceability
	Identity	Directory/ Versioning/ Scale	Testing/ Certification	Exchange	Security	Pilot	
End Point Discovery		✓					End Point Discovery
Resource Version Identification		✓		✓			Version Identification
Authentication	✓				✓		Authentication/Authorization
Authorization	✓				✓		Authentication/Authorization
Reliable Patient Identity Management	✓				✓		Patient/Provider Identification
Reliable Provider Identity Management	✓						Patient/Provider Identification
Event/Message/Topic Subscription/Publication				✓			Event Based Alerts Push Patient Information
Guaranteed Message Delivery		✓					Event Based Alerts Push Patient Information
Role/Context Identification	✓				✓		Shared Care Planning Care Team Coordination
Readiness Credential			✓			✓	End Point Discovery
Standard Based Endpoint Access		✓					End Point Discovery
Synchronous Transaction Support				✓			Patient Information Request
Asynchronous Transaction Support				✓			Event Based Alerts Push Patient Information

"*FAST* Technical Barriers"

Technical Barriers to FHIR Based Solutions Scalability

(1) Directory Versioning and Scale

- Lack of FHIR end point look up system
- How do we address the exponential growth in the number of endpoints?
- How do we find an endpoint across organization boundaries?
- How do we address potential end point variation across partners?

(2) Identity

- Lack of consistency to cross walk patient identification during a FHIR exchange
- How do we cross-walk patient identity real-time?
- How do we address the miss-identification risk?
- When is member/patient ID a requirement in a FHIR resource?

FAST
FHIR AT SCALE TASKFORCE

Technical Barriers to FHIR Based Solutions Scalability

(3) Security

- Lack of scalable authentication and authorization models for FHIR based information exchange
- Need for a scalable solution to support millions of patients/payers/providers
- How do we leverage exiting security guidelines and best practices?
- How do we know the FHIR consumer has permission to ask or see?

(4) Conformance Testing and Certification

- How do we test / validate consistently in a scalable environment ? Automated tool?
- What is the basic level of transaction conformance and validation required?
- How do we test across multiple stakeholders with varying degrees of maturity?
- How do we deal with backward compatibility?

"*FAST* Regulatory & Policy Barriers"

Regulatory/Policy Barriers to FHIR Based Solutions Scalability

(1) HIPAA Minimum Necessary

- Impossible to implement or enforce
- Creates significant barriers for real-time access to records
- Need solution where requester is responsible for limiting use of data to the declared purpose
- *"I'll know it when I see it"* doesn't translate in computable language

(2) HIPAA Mandatory Transactions

- Limiting transaction to the X12 standard impacts innovation and real time exchange for prior-authorization
- Need to change from regulation, *floor to ceiling change*
- NPRM – backward compatibility

Regulatory/Policy Barriers to FHIR Based Solutions Scalability

(3) Patient Identifiers

- Inability for a single patient identifier causes significant cost and liability

- Need ability to assign and communicate a single identifier for use by all providers and payers

(4) Data Blocking

- Inability or excessive cost to share information to support TPO creates burden on payer and provider

- Need requirement to make provider/payer information available based on need and limited associated cost

- NPRM addressing

Four Adoption Approaches *FAST* Can Consider

1. Identify and evangelize best practices

2. Drive a solution approach through a standard

3. Drive a solution approach through a regulation

4. Identify solutions already in guidance

HL7 Da Vinci Project: An Overview

To ensure the success of the industry's **shift to Value Based Care**, Da Vinci established 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.

Provider Members:
Dallas Children's Health, MultiCare, OHSU, Providence St. Joseph Health, Rush University Medical Center, Sutter Health, Texas Health Resources, Weill Cornel Medicine
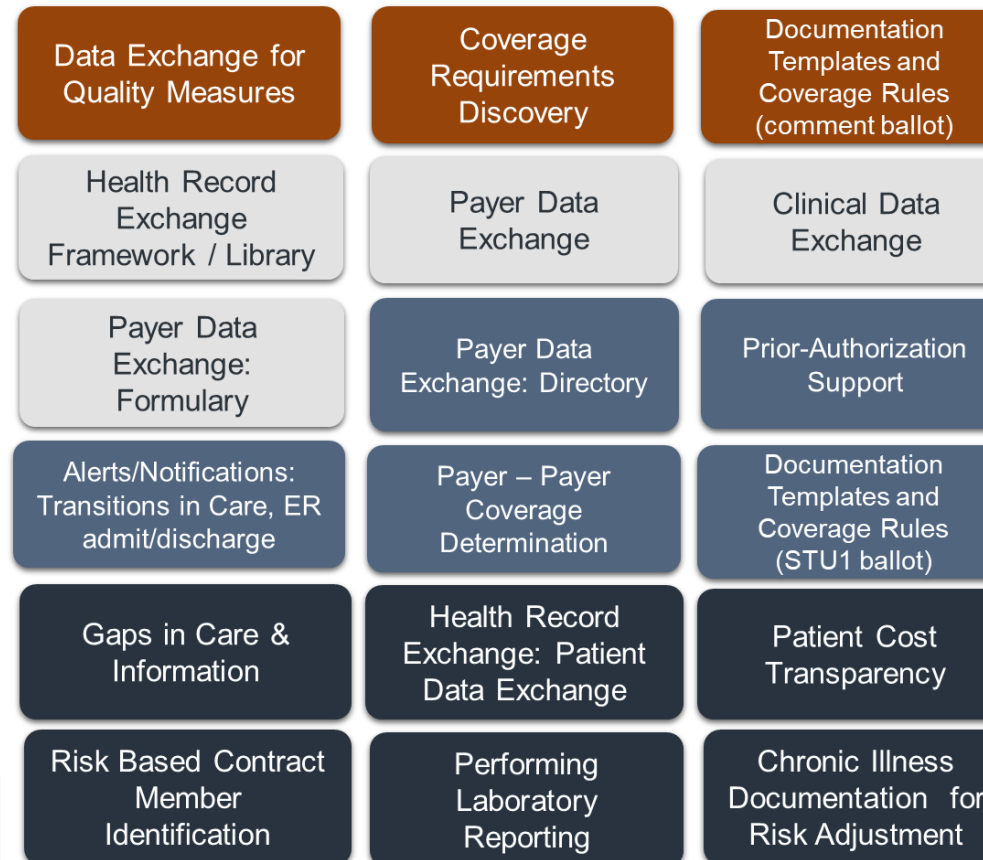
Payer Members:
Anthem, BCBSA, BCBSAL, BCBSM, BCBST, BC Idaho, Cambia Health, Cigna, CMS, GuideWell, HCSC, Humana, Independence, United Healthcare

Vendor Members:
Allscripts, Anthem, Athenahealth/Virence(aka GE Centricity), Casenet, Cerner, Cognosante, Edifecs, Epic, HealthLX, InterSystems, Juxly, Optum, InterSystems, Surescripts, ZeOmega

Partners:
HIMSS, NCQA

Data Exchange for Quality Measures	Coverage Requirements Discovery	Documentation Templates and Coverage Rules (comment ballot)
Health Record Exchange Framework / Library	Payer Data Exchange	Clinical Data Exchange
Payer Data Exchange: Formulary	Payer Data Exchange: Directory	Prior-Authorization Support
Alerts/Notifications: Transitions in Care, ER admit/discharge	Payer – Payer Coverage Determination	Documentation Templates and Coverage Rules (STU1 ballot)
Gaps in Care & Information	Health Record Exchange: Patient Data Exchange	Patient Cost Transparency
Risk Based Contract Member Identification	Performing Laboratory Reporting	Chronic Illness Documentation for Risk Adjustment

Project Process
- ❑ Define requirements (clinical, business, technical and testing
- ❑ Create Implementation Guide (IG)
- ❑ Create and test Reference Implementation (RI) (prove the IG works)
- ❑ Pilot the solution
- ❑ Deploy the Solution

Use Case Status
- In HL7 May ballot as STU or ballot for comment
- Planned for HL7 July ballot as STU
- Planned for HL7 September ballot as STU
- Use cases in discovery (some may be balloted in January 2020)

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Ballots and Connectathons

Deliverable - HL7 Ballots are for STU with the exception of DTR in May

Event – See confluence.hl7.org

EARLY SEPTEMBER BALLOT (June 21 – July 21)

- STU Health Record Exchange (HRex)
- STU Payer Data Exchange (PDex)
- STU PDex Formulary
- STU Clinical Data Exchange (CDex)

MAY BALLOT (Mar 29 – Apr 29)

- STU Data Exchange for Quality Measures (DEQM)
- STU Coverage Requirements Discovery (CRD)
- Comment Documentation Templates & Rules (DTR)

HL7 Connectathon

ONC Annual Meeting
Da Vinci Meeting & Connectathon

2019

2020

MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR

Da Vinci Connectathon & Working Session

HL7 Connectathon

SEPTEMBER BALLOT (Aug 9 - Sept 9)

- STU PDex Payer Directory
- STU Documentation Templates and Rules (DTR)
- STU Alerts / Notifications
- STU Payer Coverage Decision Exchange
- STU Prior Authorization Support (Prior Auth)

JANUARY BALLOT (Dec 27 – Jan 26)

- STU Gaps in Care
- STU STU Patient Cost Transparency

HL7 Connectathon

Use Case Focus Areas

Quality Improvement

- Data Exchange for Quality Measures Framework:
- Gaps in Care & Information

Coverage / Burden Reduction

- Coverage Requirements Discovery
- Documentation Templates and Coverage Rules
- Prior-Authorization Support

Member Access

- Clinical Data Exchange
- Payer Data Exchange
- Payer Data Exchange: Formulary
- Payer Data Exchange: Provider Network
- Payer – Payer Coverage Determination
- Patient Cost Transparency

**Process Improvement**

- Risk Based Contract Member Identification
- Chronic Illness Documentation for Risk Adjustment

Clinical Data Exchange

- Payer Data Exchange
- Clinical Data Exchange
- Alerts/Notifications: Transitions in Care, ER admit/discharge
- Health Record Exchange: Patient Data Exchange
- Performing Laboratory Reporting

Use Case Status

- Balloted in May
- Planned for July Ballot
- Planned for September Ballot
- Use cases in discovery (may be balloted in January 2020)

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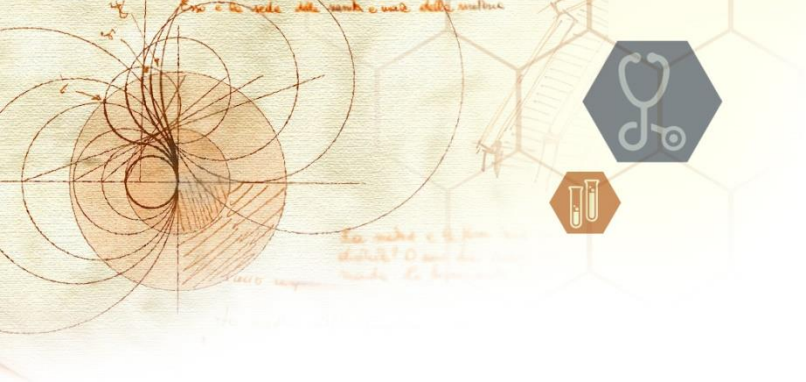
Information Exchanges Supported by Da Vinci IGs

Quality Measures and Gaps
  [1] Data Exchange for Quality Measures
  [2] Gaps in Care and Information

Member Directed Exchange (CMS NPRM)
  [3] Payer Data Exchange
  [4] Payer Data Exchange-Payer Network (Directory)
  [5] Payer Data Exchange-Formulary
  [6] Payer Coverage Decisions (Treatment)
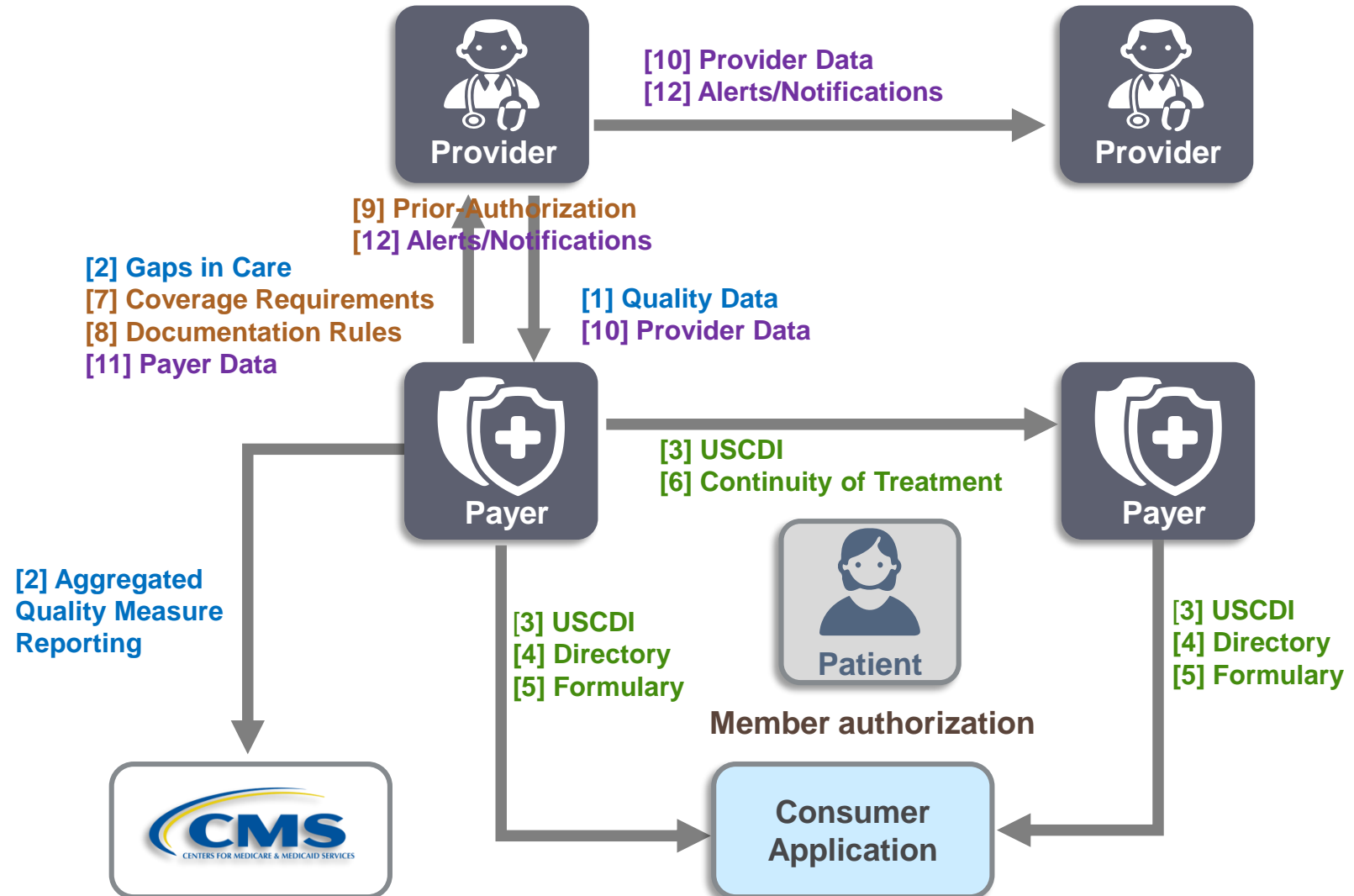
Coverage/Documentation Requirements
  [7] Coverage Requirements Discovery
  [8] Documentation Templates and Rule
  [9] Prior-Authorization Support

Patient Data Exchange
  [10] Clinical Data Exchange (Provider Data)
 [11] Payer Data Exchange (Payer Data)
  [12] Alerts/Notification

Patient Cost Transparency (in discovery)

Provider

[10] Provider Data
[12] Alerts/Notifications

Provider

[9] Prior-Authorization
[12] Alerts/Notifications

[2] Gaps in Care
[7] Coverage Requirements
[8] Documentation Rules
[11] Payer Data

[1] Quality Data
[10] Provider Data

Payer

[3] USCDI
[6] Continuity of Treatment

Payer

[2] Aggregated Quality Measure Reporting

[3] USCDI
[4] Directory
[5] Formulary

Patient

[3] USCDI
[4] Directory
[5] Formulary

Member authorization

CMS CENTERS FOR MEDICARE & MEDICAID SERVICES

Consumer Application

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Work Breakdown to Support CMS NPRM

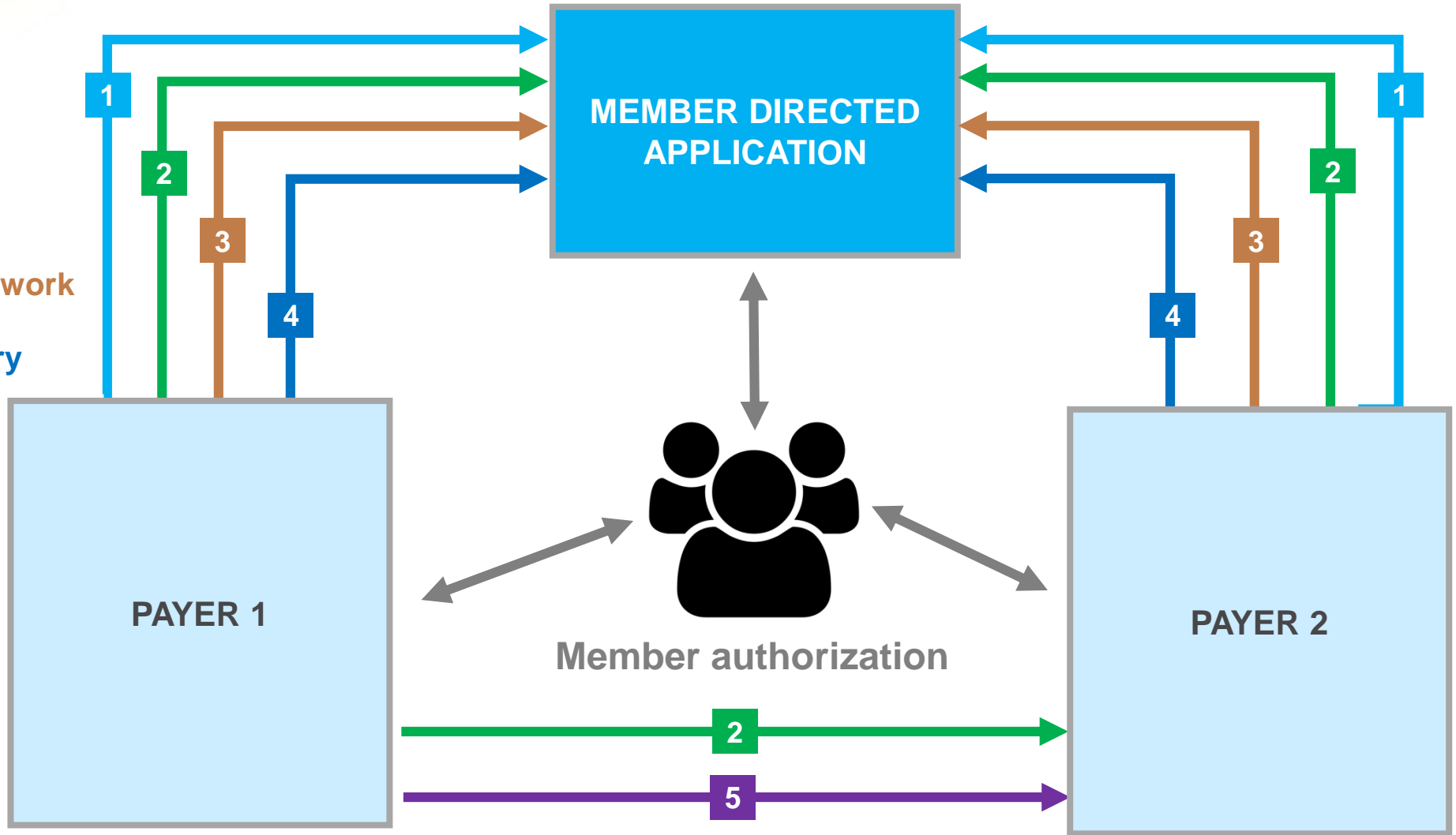**Approach (preliminary) to work efforts underway to meet the forthcoming CMS rules**

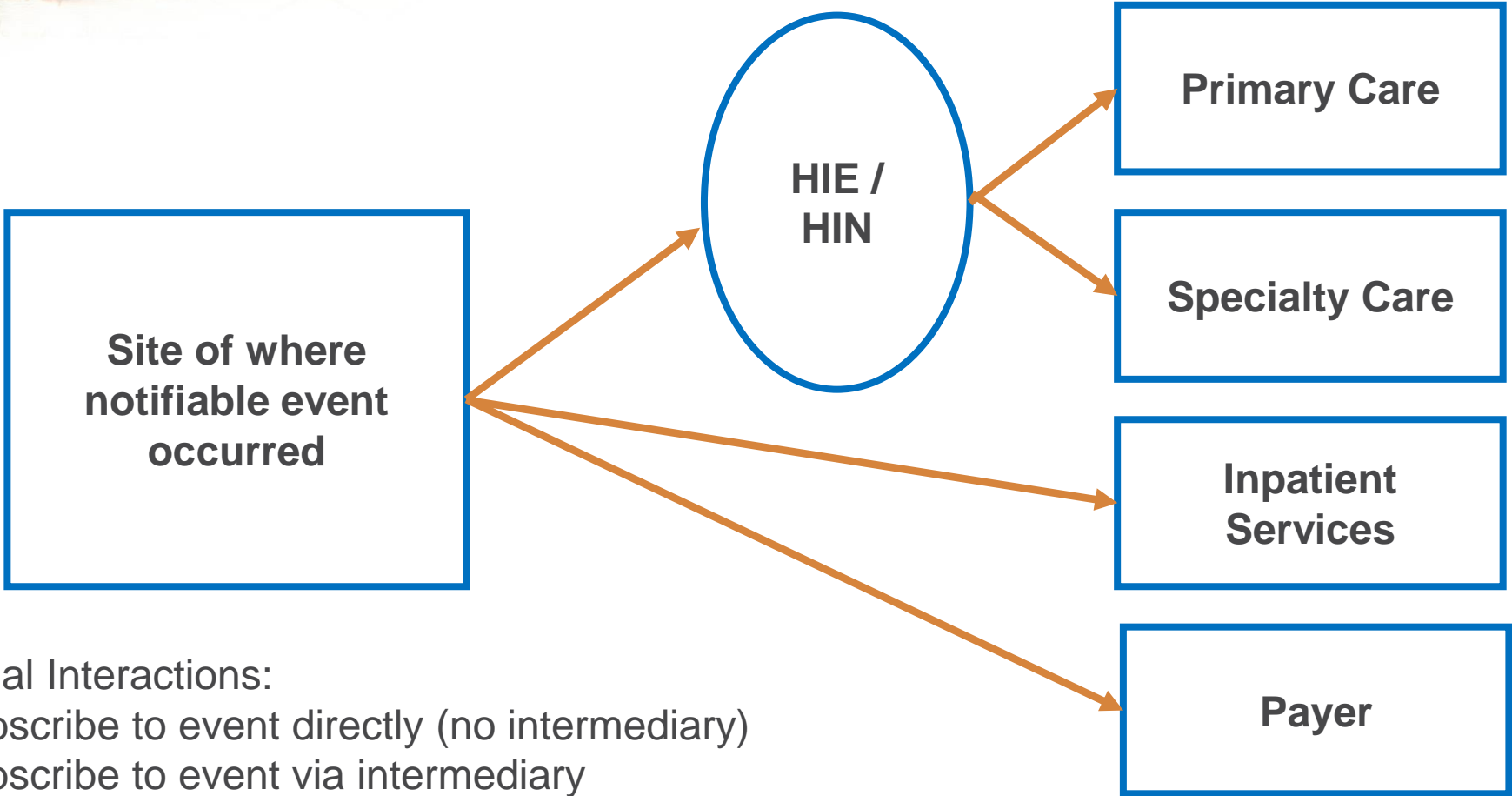| WORK BREAKDOWN TO SUPPORT CMS NPRM				PAYER TO:		
DATA	**SUB TYPE**	**RESOURCE / PROFILE**	**BUILD**	MEMBER	PROVIDER	PAYER
Claims Data	**Financial**	EOB	CARIN	CARIN		
	Clinical	USCDI / US Core / Da Vinci	Da Vinci	DV for CARIN	Da Vinci	Da Vinci
Clinical Data	**All**	USCDI / US Core / Da Vinci	Da Vinci	DV for CARIN	Da Vinci	Da Vinci
Payer Decisions	**Treatment**	USCDI / US Core / Da Vinci	Da Vinci			Da Vinci
Pharma Data	**RTBC**	RTBP / FHIR R4	CARIN NCPDP	CARIN NCPDP	CARIN NCPDP	
	Medications	USCDI / US Core	Da Vinci	DV for CARIN	Da Vinci	Da Vinci
	Formulary	Da Vinci (new Profile)	Da Vinci	DV for CARIN	Da Vinci	Da Vinci
Directory Data	**Payer & Pharma Network**	US Core / VHDS / Da Vinci	Da Vinci	DV for CARIN	Da Vinci	
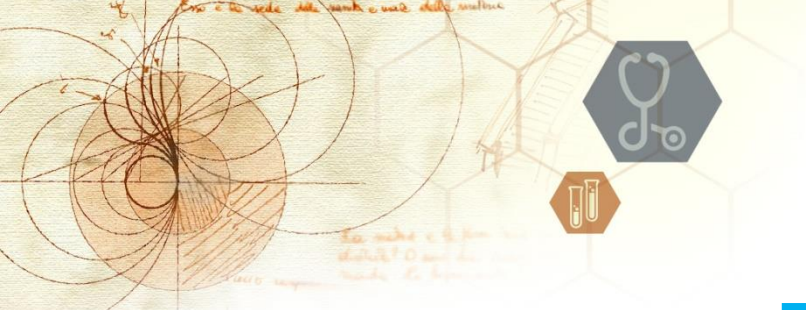
CMS NPRM Requirement for Covered Payers

1 Blue Button 2.0 -- CARIN

2 USCDI* -- Da Vinci PDex

3 Directory: Da Vinci Payer Network

4 Formulary: Da Vinci Formulary

5 Coverage: Da Vinci PCD

Will support bulk data exchange for USCDI

MEMBER DIRECTED APPLICATION

Member authorization

PAYER 1

PAYER 2

Alerts/Notification

Site of where notifiable event occurred

HIE / HIN

Primary Care
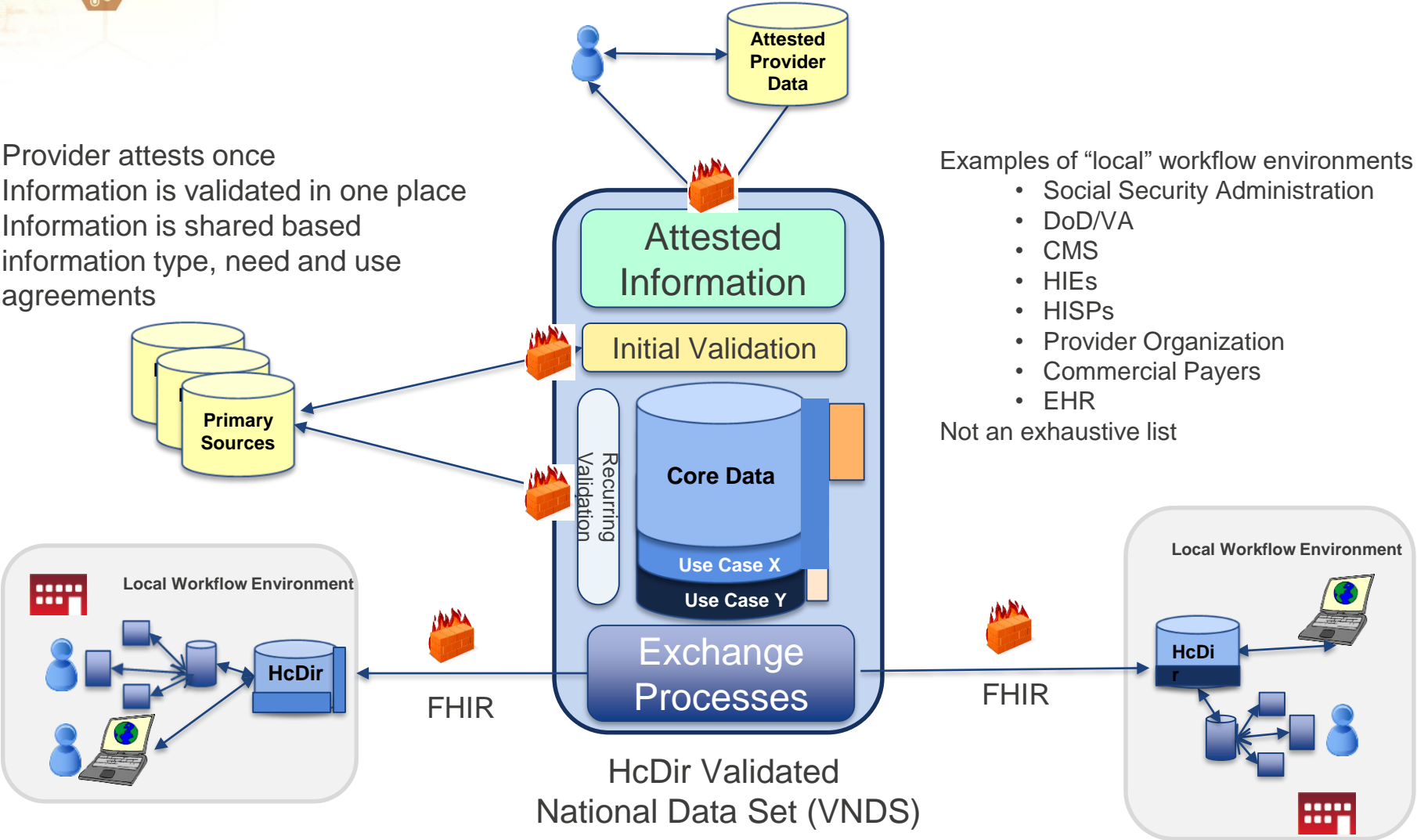
Specialty Care

Inpatient Services

Payer

Any care team member can be connected directly or via an intermediary (e.g. HIE)

Potential Interactions:
1) Subscribe to event directly (no intermediary)
2) Subscribe to event via intermediary
3) Push to "registered" member (perhaps via payer care team information)
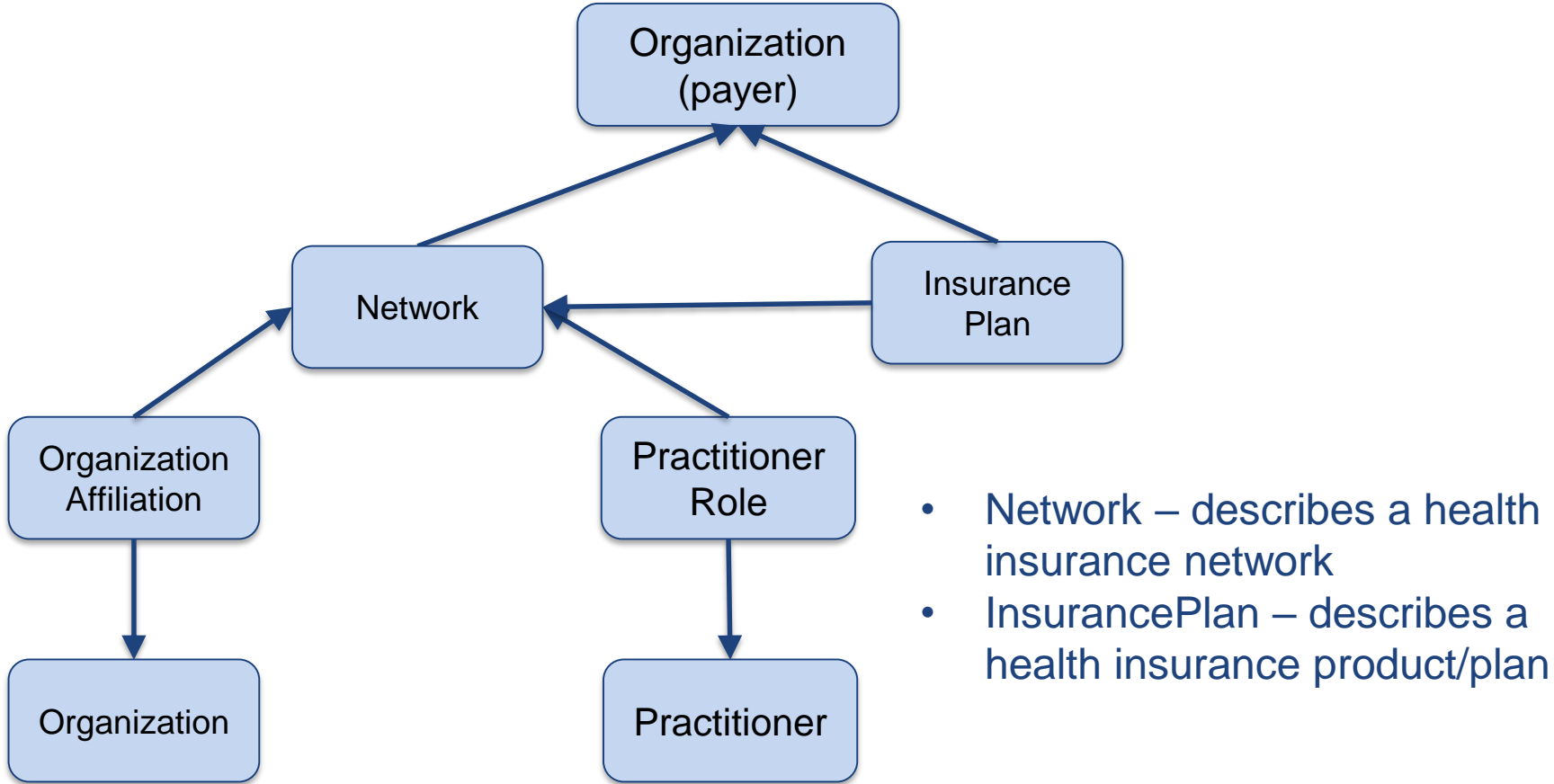4) Push to intermediary

Da Vinci Directory Effort is based on the Validate Healthcare Directory IG

- Provider attests once
- Information is validated in one place
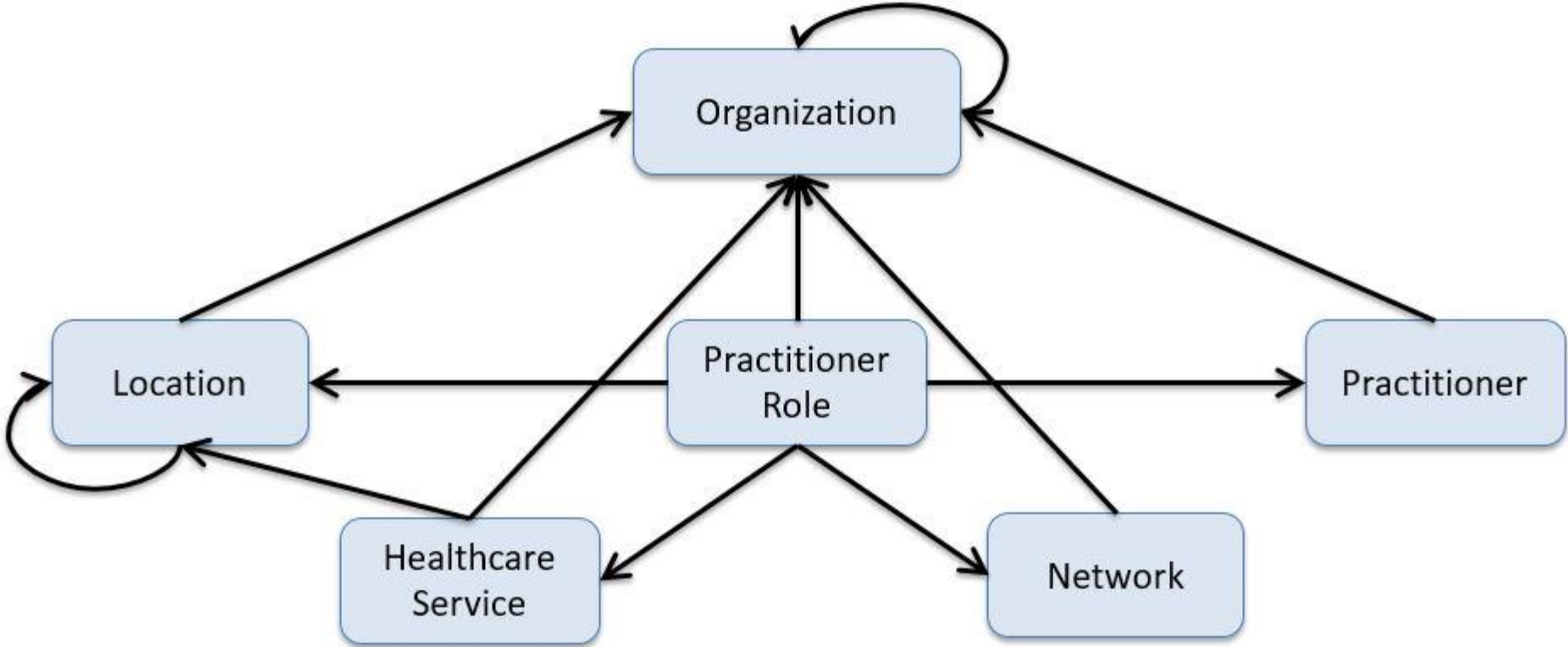- Information is shared based information type, need and use agreements

Attested Provider Data

Attested Information

Initial Validation

Recurring Validation

Core Data

Use Case X

Use Case Y

Primary Sources

Examples of "local" workflow environments
- Social Security Administration
- DoD/VA
- CMS
- HIEs
- HISPs
- Provider Organization
- Commercial Payers
- EHR

Not an exhaustive list

Local Workflow Environment

HcDir

Exchange Processes

FHIR

FHIR

Local Workflow Environment

HcDir

HcDir Validated National Data Set (VNDS)

http://build.fhir.org/ig/HL7/VhDir/general-guidance.html

Data Model – Health Insurance

- Network – describes a health insurance network
- InsurancePlan – describes a health insurance product/plan

Data Model – Practitioner Role

Data Model – Organization Affiliation

Questions ?