eHealth Exchange™

All Participant Call

May 16, 2024

How Do I Participate?
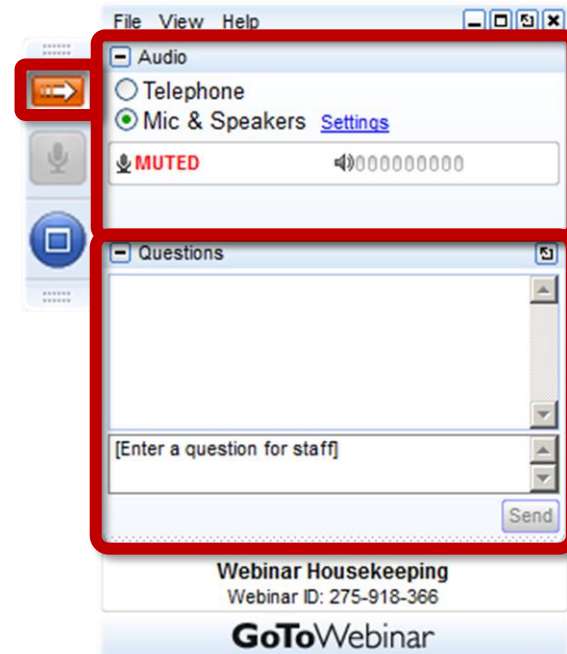
Your Participation

Open and close your control panel

Join audio:
- Choose "Mic & Speakers" to use VoIP
- Choose "Telephone" and dial using the information provided

Submit questions and comments via the Questions panel

Note: Today's presentation is being recorded and will be provided within 48 hrs

Today's Topics

eHealth Exchange Team Member Spotlight	Mike McCune
2024 Coordinating Committee Election Timeline	Pat Russell
Network Updates	Pat Russell
Clinical Data Exchange (CDex) Use Case	Mike McCune
Prior Authorization Use Case (CDS Hooks)	Keith Brick
QHIN Update	Pat Russell
Events & Other Exciting News	Tina Feldmann
Information & Resources	Ashley Green
Q&A	Anyone

Employee Spotlight

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Mike McCune

Senior Solutions Engineer

[Michael McCune | LinkedIn]

2024 Coordinating Committee Election Timeline

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2024 Coordinating Committee (CC) Seats

	Representative	Term Date
HIO	Dan Paoletti	9/30/2026
	John Kansky	9/30/2026
	Pam Matthews	9/30/2024
IDN	Patti Cuartas, PA	9/30/2026
	Matt Eisenberg, MD	9/30/2026
	Paul Matthews	9/30/2026
Other	Arun Gopalan	9/30/2026
	Open (formerly Eric Liederman)	9/30/2024
	Derek Plansky	9/30/2024

2024 Coordinating Committee (CC) Election Timeline

- Nominating Committee – June – need 1-3 volunteers, review application and edit in June via email and then review applications in August to provide nominees to the CC for approval
- Announce elections during monthly All Participant – May, June and July
- July 12 - Email Participant notice for elections
- July 15 – July 26 - Open for applications
- July 29 - August 9 - Nominating Committee Review Applications
- August 9 - Nominating Committee finalizes slate of nominees
- August 20 - Coordinating Committee approves slate of nominees
- August 26 – August 30 - Participants Vote
- September 3 - 6 - Time for a runoff if needed
- Sept 17 - New Coordinating Committee Members shadow CC Call
- Sept 19 - Notice to Participants on monthly All Participant Call
- Sept 23 – October 11, Orientation
- October 15 - First New CC Member meeting

Network Updates

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Particle Health

Particle Health began exchanging 1/4/2023 via eHealth Exchange.

eHealth Exchange received informal concerns from 4 Participants.

eHealth Exchange received notice from 1 Participant requesting to meet with Particle Health to discuss their review of queries from Particle Health Sub-participants. The parties continue to work to resolve any questions/concerns.

eHealth Exchange reviewed audit logs from 10/7/2023- 4/23/2024. None of the organizations listed in the Carequality notification were found during this time frame.

C3HIE (formerly HASA)

Concerns were raised regarding some requests from C3HIE that included Treatment as the asserted Permitted Purpose.

While evaluating these concerns, C3HIE requested to voluntarily suspend for 14 days all exchange activities. May 10 – May 24. This is in accordance with Section 19.02 of the Data Use and Reciprocal Support Agreement (DURSA).

eHealth Exchange and C3HIE have been actively reviewing the C3HIE exchange patterns.

All changes including this one impact the eHealth Exchange directory, it is important to ensure that your technology platform regularly "ingests" the eHealth Exchange directory contents so your system knows which eHealth Exchange Participants are actively exchanging.

Clinical Data Exchange (CDex)

Task-based Approach

Use Case

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What is CDex?

"The goal is to **identify, document and constrain specific exchange patterns so that providers and payers can reliably exchange information** for patient care (including coordination of care), risk adjustment, quality reporting, identifying that requested services are necessary and appropriate (e.g. should be covered by the payer) and other uses that may be documented as part of this effort. Clinical data payloads will include C-CDA, C-CDA on FHIR, compositions, bundles, and discrete resources conforming to the US Core specification."

Da Vinci Clinical Data Exchange (CDex) Implementation Guide Release 0.1.0 - Implementation Guide HomePage

What is CDex *Task-based* Approach?

"A Task Based Approach to satisfy the Data Consumer's need to request the information it needs when it can not perform a direct query."

Da Vinci Clinical Data Exchange (CDex) 2.1.0-preview – Task-based Approach

Benefits of the Task-based Approach

- Interaction pattern similar to Bulk Data Access

- Easy ability for Task recipient to say "yes" or "no", including providing a reason for refusal

- Allows linking the request to its associated outputs without creating a new resource

- Can use polling or subscriptions to retrieve the results

- Allows conveying the 'status' of a request in progress

- Monitoring for status does not require a change in workflow from monitoring for final results

- Provides the ability to represent the Purpose of Use in the Task

Task Resource

Describes an activity to be performed and tracks the state of completion of that activity

Key elements

Element	Purpose
.status	Status of the request
.intent	Purpose for the request
.for	The subject of the request
.requestor	Initiator organization of the request
.owner	Target responder organization for the request
.input	Array containing all FHIR search requests
.output	Array containing all links to retrieved data

Name	Flags	Card.	Type
Task	I TU		DomainResource
identifier		0..*	Identifier
instantiatesCanonical	Σ	0..1	canonical(ActivityDefinition)
instantiatesUri	Σ	0..1	uri
basedOn	Σ	0..*	Reference(Any)
groupIdentifier	Σ	0..1	Identifier
partOf	Σ	0..*	Reference(Task)
status	?! Σ	1..1	code
statusReason	Σ	0..1	CodeableConcept
businessStatus	Σ	0..1	CodeableConcept
intent	Σ	1..1	code
priority		0..1	code
code	Σ	0..1	CodeableConcept
description	Σ	0..1	string
focus	Σ	0..1	Reference(Any)
for	Σ	0..1	Reference(Any)
encounter	Σ	0..1	Reference(Encounter)
executionPeriod	Σ	0..1	Period
authoredOn	I	0..1	dateTime
lastModified	Σ I	0..1	dateTime
requester	Σ	0..1	Reference(Device | Organization | Patient | Practitioner | PractitionerRole | RelatedPerson)
performerType		0..*	CodeableConcept

	Flags	Card.	Type
owner	Σ	0..1	Reference(Practitioner | PractitionerRole | Organization | CareTeam | HealthcareService | Patient | Device | RelatedPerson)
location	Σ	0..1	Reference(Location)
reasonCode		0..1	CodeableConcept
reasonReference		0..1	Reference(Any)
insurance		0..*	Reference(Coverage | ClaimResponse)
note		0..*	Annotation
relevantHistory		0..*	Reference(Provenance)
restriction		0..1	BackboneElement
repetitions		0..1	positiveInt
period		0..1	Period
recipient		0..*	Reference(Patient | Practitioner | PractitionerRole | RelatedPerson | Group | Organization)
input		0..*	BackboneElement
type		1..1	CodeableConcept
value[x]		1..1	*
output		0..*	BackboneElement
type		1..1	CodeableConcept
value[x]		1..1	*

Task Resource

State Transition Diagram

- When a Task is POSTed by an initiator, the synchronous response includes the Task's FHIR resource id that can be used to retrieve the Task. The initiator can then poll to determine status of the Task processing, until it's completion.

- The state of a Task resource is defined by its *status* element.

- As a Task request is processed, the *status* and *lastModified* elements are updated to reflect the current state and time of transition.

- When Task processing is completed, the Task's *output* array will contain urls to ndjson payload that can then be retrieved.

- The nominal flow will result in status=completed. Exception states would include rejected or failed. The initiator can also cancel a Task request that has not yet been completed.

Task Input

Task.input represents the necessary information to be provided by the initiator to complete the task, including the specific data being requested. The CDex Task Data Request Profile supports four ways to define the requested data.

Initial Focus

- leveraging the FHIR RESTful search syntax
- using a code

Support is Required

- using free text
- referencing a FHIR Questionnaire

Support is Optional

Task Output

Task.output represents the requested data that was retrieved and that is now available to the initiator.

Initial Focus

- FHIR Search Bundle (e.g., a query response)
- FHIR Documents (e.g., C-CDA on FHIR)
- Other data formats attached to or referenced by a FHIR DocumentReference resource (e.g., a C-CDA document)
- a FHIR QuestionnaireResponse
- Other Individual FHIR resources (e.g., Condition)

Task Input and Output Examples

```
"input" : [
 {
   "type" : {
   "coding" : [{
    "system" : "http://hl7.org/fhir/us/davinci-hrex/CodeSystem/hrex-temp",
     "code" : "data-query"
    }]
  },
   "valueString" : "Condition?patient=123&clinical-status=active,recurrance,remission"
  },
  {
   "type" : {
   "coding" : [{
    "system" : "http://hl7.org/fhir/us/davinci-hrex/CodeSystem/hrex-temp",
    "code" : "data-query"
    }]
   },
   "valueString" : "AllergyIntolerance?patient=123&clinical-status=active"
  }
]
```

```
"output": [
   {
    "type": {
     "coding": [ {
       "system": "http://hl7.org/fhir/us/davinci-hrex/CodeSystem/hrex-temp",
       "code": "data-value"
      }]
    },
    "valueString":
"https://concept01.ehealthexchange.org:52780/cdex/fhir/r4/ndjson/4D6E8196-E849-
11EE-A59F-0E31B4C4E4BB-Condition"
   },
   {
    "type": {
     "coding": [ {
       "system": "http://hl7.org/fhir/us/davinci-hrex/CodeSystem/hrex-temp",
       "code": "data-value"
      }]
    },
    "valueString":
"https://concept01.ehealthexchange.org:52780/cdex/fhir/r4/ndjson/EB2CEE86-E849-
11EE-89F5-0E31B4C4E4BB-AllergyIntolerance"
   }
]
```
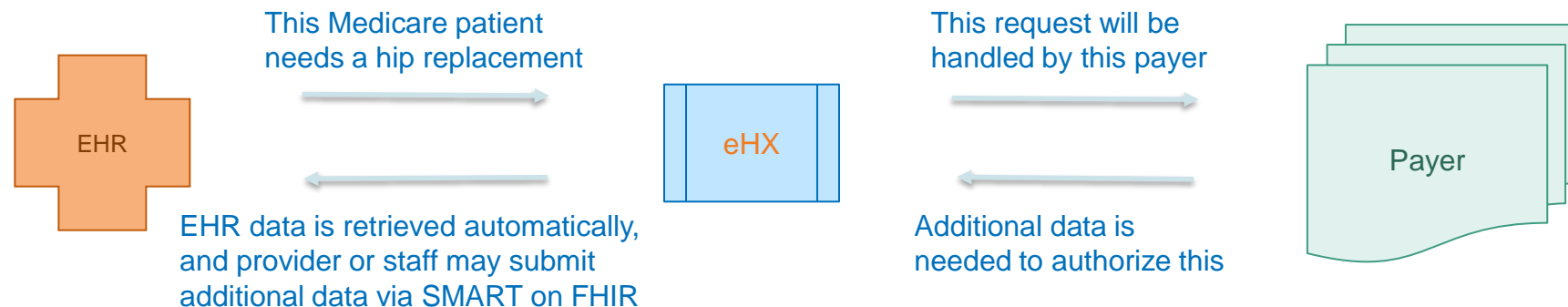
DEMO

Prior Authorization Use Case

CDS Hooks

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Burden Reduction Overview

Title	CRD ✓	DTR ✓	PAS ✓
Name	Coverage Requirements Discovery	Documentation Templates and Rules	Prior Auth Submission
Description	Enables a provider to trigger a "CDS Hooks" request to a payer's pre-defined endpoint to check for a patient's coverage requirements for a given procedure and communicate if the procedure requires a PA.	Enables the lookup of FHIR Questionnaires from the payer, and the clinical data used to complete the questionnaire from the provider. CQL provides logic to parse the FHIR data to automate questionnaire response	Providers submit prior authorizations using FHIR or an X12 message with a FHIR wrapper. The specification defines the response/determination communication process and PA status lookup.
Outcome	Establishes if a patient has coverage for a procedure from that payer. Used as a precursor to DTR	The questionnaire produces a Boolean output defining if a PA is required for the procedure	A PA response, that can often be automated and instantaneous
eHealth Exchange Implementation	The SMART on FHIR Proxy allows us to host SMART apps that enable these processes. EHRs could alternatively provide the functionality directly, and leverage eHX network to enable communication with the payers in our network.		

How CDS Hooks enable Coverage Requirements Discovery

- An action occurs in the EHR – *Provider signs an order for a patient*
- The EHR gathers the context and transmits it to the CDS Service - *"Here are the patient, provider, and order details."*
- The request is routed to a payer who compares the order to their policies and returns a response, which is delivered to the EHR and shown to the provider.

This Medicare patient needs a hip replacement

EHR data is retrieved automatically, and provider or staff may submit additional data via SMART on FHIR

This request will be handled by this payer

Additional data is needed to authorize this

EHR   eHX   Payer

A Simple User Story...

- At the time of ordering, a provider receives immediate feedback (**CRD**) from the patient's covering payer.
  - The patient's coverage defines which payer to route the request to.
    - Coverage details are verified through real-time eligibility / benefits queries earlier in the encounter.
  - Data that the payer requires for a coverage decision is retrieved automatically via FHIR.
  - The provider can immediately act upon the feedback from the payer, including:
    - Launching a SMART on FHIR application for interactive **DTR**
    - Reviewing prerequisites for the ordered procedure or referral
    - Receiving immediate authorization and proceeding to scheduling
    - Doing nothing (if prior authorization is not required)

Lightweight Implementation

✓ Register the SMART on FHIR application

– Enables secure and seamless SSO into payer workflows proxied by eHx

– For Epic: Whitelist our URLs

✓ Register a single CDS Service

– One eHx endpoint routes traffic for all participating payers

– For Epic: These are supported by standard BPA build

✓ Map payer Identifiers

– Add an NAIC or similar ID to each payer's organization record in the HER

eHealth Exchange expects this build to take just a few hours

Reducing the IT Burden

- Provider Challenge: "My patients have a huge variety of insurance plans and payers. Our IT team doesn't have time to set up connections to each one of them individually."

- payer Challenge: "Our members can be seen by any number of different organizations. We need to receive the same information regardless of who is requesting the prior authorization."

- Solution: A connection through eHealth Exchange provides routing to and from all participating payers.

- Solution: By routing requests based on the patient's coverage, and dynamically fulfilling the prefetch requirements for each payer's endpoints, eHealth Exchange ensures the required data is present upon submission.

Da Vinci Burden Reduction Support –
What we're doing behind the scenes

- eHealth Exchange now enables support for Burden Reduction CRD, DTR, and PAS processes using FHIR R4 and CDS Hooks via a SMART on FHIR app as well as via EHR-native functionalities
  - Enables any EHR to support full Burden Reduction processes without specific software development efforts
- Features
  - **Patient Payer Endpoint Identification** service allows eHealth Exchange to determine the payer URLs for Burden Reduction queries based on a patient's coverage data
  - **FHIR** request/response routing to payers and Providers
  - **CDS Hooks** request/response routing with payers, dynamically satisfying the data requirements for each payer using your existing FHIR resources
  - **SMART on FHIR Proxy** allows for UI-based workflows enabling applications that complete the Burden Reduction workflows such as DTR

CRD using eHealth Exchange SMART on FHIR Proxy
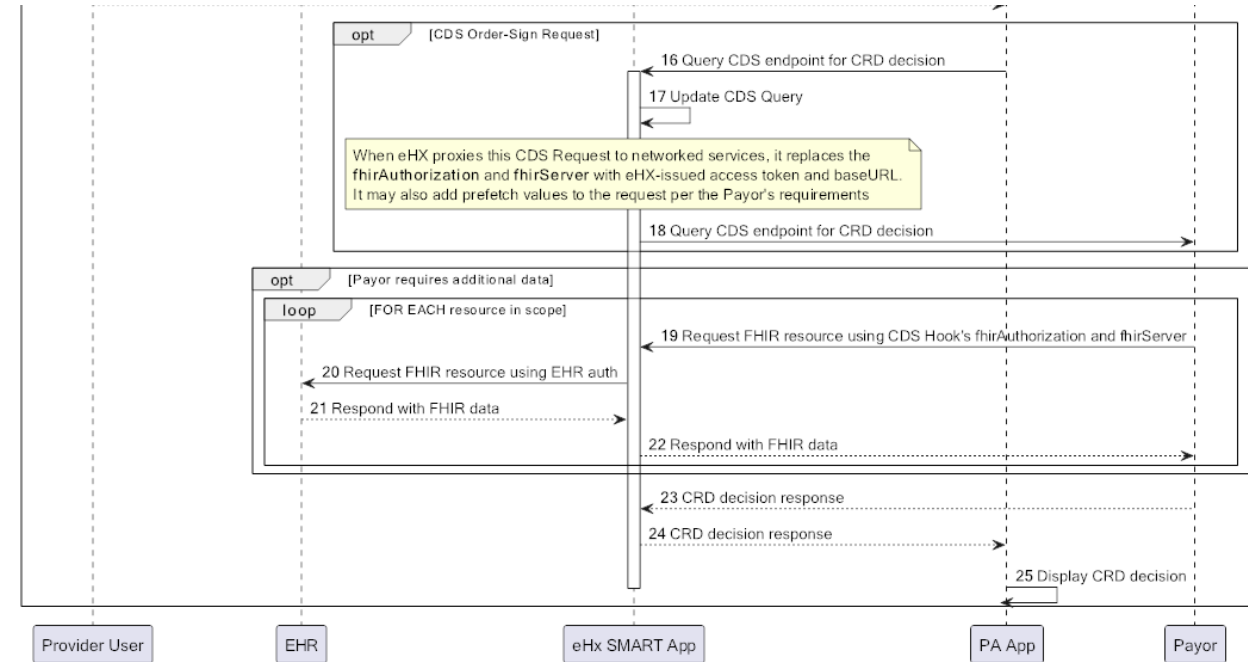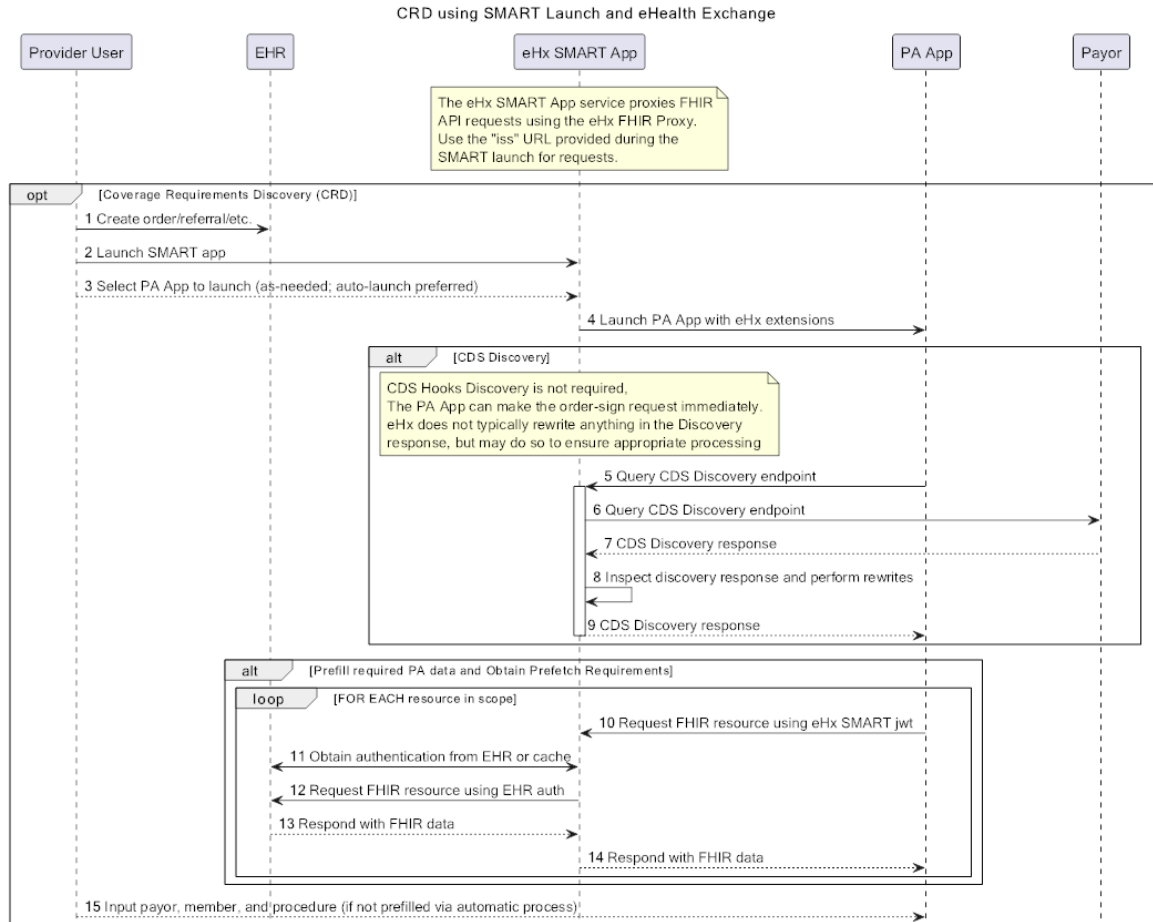

CRD using SMART Launch and eHealth Exchange

Provider Implementation Requirements:
eHX FHIR Backend Service, eHX CDS Hooks Service

CRD using EHR Native Hooks

- This flow assumes the CDS hook is triggered from the EHR directly
- The eHealth Exchange offers a payer Endpoint Identification Service that enables the EHR to route all CDS hooks requests to the same endpoint, and receive a response from any payer
- The eHealth Exchange enables the following traffic:
  - CDS Hooks outbound from the EHR to the payer
    - Including resulting responses
  - FHIR API requests outbound from the Provider to the payer
    - Including resulting responses

Provider Implementation Requirements:
eHX FHIR Backend Service, eHX CDS Hooks Service

CRD Using EHR Native Functionalities
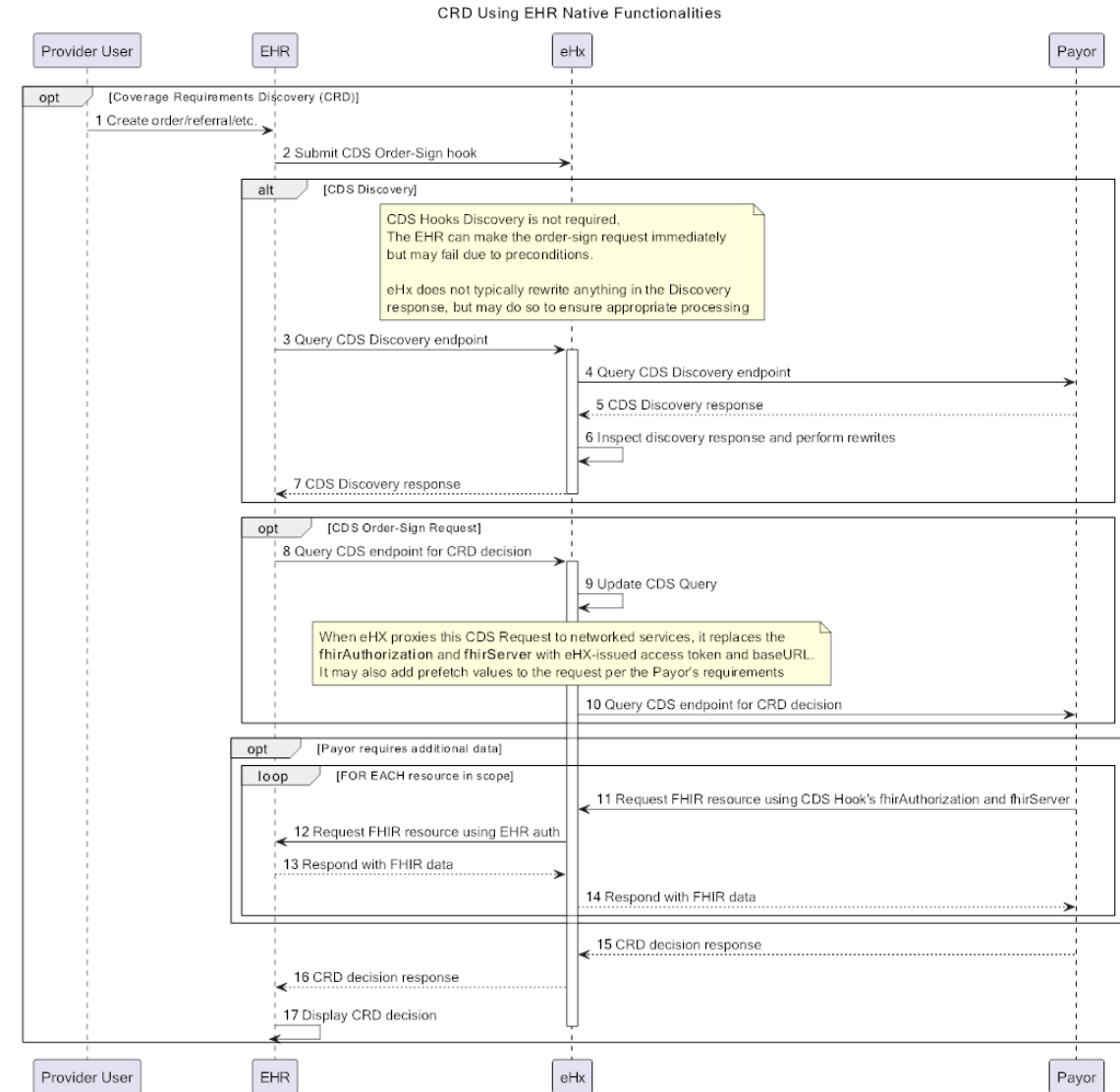
QHIN Update

eHealth Exchange QHIN Volume Metrics

eHealth Exchange QHIN Transaction Volume – As A Responder (April 2024)

Transaction Type	Patient Discovery Requests from Other QHINs to eHealth Exchange QHIN	% NOT Matched Due to Out of Service Area	Requests from Other QHINs Forwarded to eHx QHIN Participants	eHealth QHIN Participant Match Results	Avg Response Time in Seconds (eHx Hub + Participant)
Patient Discovery	9,950,727 15%↑	99.7%	~31,877 (0.3%)	~25,684 (81%)	1.15
Document Query	n/a	n/a	8,320 95%↑	2,559 clinical documents Identified	0.69
Document Retrieve	n/a	n/a	928 74%↑	924 clinical documents retrieved	3.16

!

1. ↑↓ Month-over-month percentage change in **total requests** has been added

2. Our QHIN Participants are not yet initiating requests, but at least one may be initiating by end of May

3. Interestingly, after the eHealth Exchange QHIN returns patient matches to Epic via TEFCA, Epic initiates QD & RD through the traditional eHealth Exchange network (not through TEFCA network). This is Epic's default behavior, although it appears Epic customers can override this.

QHIN-to-QHIN Exchange

2024 Performance Measures*

Performance Measures

In order to accurately measure the effectiveness of QHIN-to-QHIN exchange, the RCE will collect several performance measures from QHINs. These data are meant to assess the performance of QHINs for each use case. The measures by themselves will not directly impact a QHIN's Designation status.

QTF-124

The following data MUST be submitted to the RCE for each calendar month by the 15th of the following month:

- Downtime for the QHIN's gateway Actors (e.g., Initiating Gateway, Responding Gateway) in minutes in the reporting month. Reports MUST include planned and unplanned downtime by Actor.

- As a QHIN Initiating Gateway:
  a. Raw count of successful (i.e., completed without error) QHIN-to-QHIN transactions, per Responding QHIN, within the reporting period for each of:
     1. Patient discovery
     2. Document query
     3. Document retrieve
     4. Message delivery
  b. Raw count of errors in QHIN-to-QHIN transactions, per Responding QHIN per IHE metadata error code received within the reporting period.
  c. Raw count of connectivity errors per Responding QHIN received within the reporting period.
  d. Average response time for each QHIN-to-QHIN transaction, per Responding QHIN transacted with during the reporting period. Each data point must include the message type, average response time, and Responding QHIN.
  e. Total number of documents retrieved via QHIN Query within the reporting period.
  f. Total number of documents successfully delivered via Message Delivery within the reporting period.

- As a QHIN Responding Gateway:
  a. Average response time for each QHIN-Participant transaction by HCID within the reporting period.
  b. Total number of messages received via QHIN Message Delivery within the reporting period.

*Based on QTF-124 requirement within QTF v1.1

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QHIN-to-QHIN Exchange
2024 Performance Measures

Submitted (April)

As Responding Gateway

Average response time for each QHIN-Participant transaction by HCID

YYYY-MM	eHx Responding Participant Name	eHx Responding Participant HCID	Message Type	Average Response Time
2024-04	ALOHR	1.3.6.1.4.1.38694	ITI-55	1.01
2024-04	ALOHR	1.3.6.1.4.1.38694	ITI-38	0.46
2024-04	ALOHR	1.3.6.1.4.1.38694	ITI-39	3.16
2024-04	ALOHR	1.3.6.1.4.1.38694	ITI-80	n/a
2024-04	CRISP	2.16.840.1.113883.3.651	ITI-55	1.31
2024-04	CRISP	2.16.840.1.113883.3.651	ITI-38	0.79
2024-04	CRISP	2.16.840.1.113883.3.651	ITI-39	n/a
2024-04	CRISP	2.16.840.1.113883.3.651	ITI-80	n/a

Total number of messages received via QHIN Message Delivery

YYYY-MM	Documents Received
2024-04	0

*Based on QTF-124 requirement within QTF v1.1

Common Agreement (CA)v2.0 With Terms of Participation (ToP)

- Published in the Federal Register May 1, 2024

- Become effective date may be up to 60 days after it is published in the Federal Register (July 1, 2024)

- Common Agreement v2.0, Section 1.2.4, the ToP has180 days after published in the Federal Register for QHINs to implement (December 31, 2024)

  – Allows time for QHINs, Participants and Subparticipants to implement the ToP with current participating organizations

- CA v2.0, Section 14.1, requires QHINs to make available evidence that Participants and Subparticipants have received the ToP

Events & Other News

Congratulations to FDA!

Biologics Effectiveness and Safety (BEST) Pilot

Electronic exchange of rich clinical data involving validation of adverse events

In collaboration with eHealth Exchange, the BEST Pilot was The first-of-its-kind, large-scale Networked FHIR implementation validated FHIR R4 can be successfully deployed nationwide to help not only healthcare providers, but also public health agencies.

eHealth Exchange

ANNUAL MEETING

NASHVILLE ★ TN

DECEMBER 10 2024

Save -the- Date

Join us as we **illuminate** progress made during the year, **amplify** the work to push interoperability forward, as we **stay on beat** with regulatory updates.

Join Us!

Hotel Information Embassy Suites by Hilton Downtown Nashville

708 Demonbreun Street

Nashville, TN 37203

Room Rate

$249 + taxes/night

(available until November 19, 2024)

Upcoming Events

June

AHIP 2024
June 11-13, 2024 | Las Vegas, NV
Exhibiting, Booth 1335

Japanese Association for Medical Informatics Symposium
June 13-15, 2024 | Chiba, Japan
Speaking: Jay Nakashima

Hub Dashboard Training Webinar
June 25, 2024 | 4-5 PM Eastern
Register Here

July

2024 Annual Research Meeting | AcademyHealth
June 29-July 2, 2024 | Baltimore, MD
Speaking: Jay Nakashima

August

Medicaid Enterprise Systems Community (MESC) 2024
August 12-15, 2024 | Louisville, KY
Attending: Jay Nakashima

BCBS eSolutions Xchange
August 25-28, 2024 | Amelia Island, FL
Exhibiting

Information & Resources

eHealth Exchange™

Contacts for Your Organization

We want to ensure that we are reaching the right people at your organization with our communications.

– If you have had recent or past changes and are unsure if we have an updated list: email administrator@ehealthexchange.org requesting the Contact List Template to complete and return.

– The template asks name, title, phone number, email address, and what type of emails the resource should receive.

– This will assist eHealth Exchange and each Participant in knowing that the communication we send is received appropriately.

Your Hub Dashboard – Your web portal providing interoperability insights.
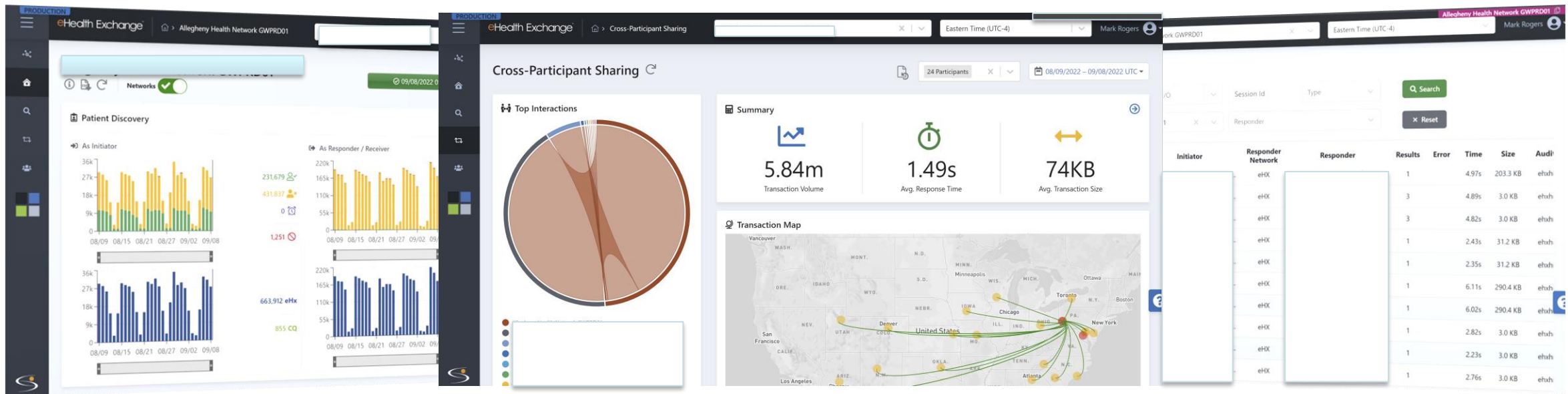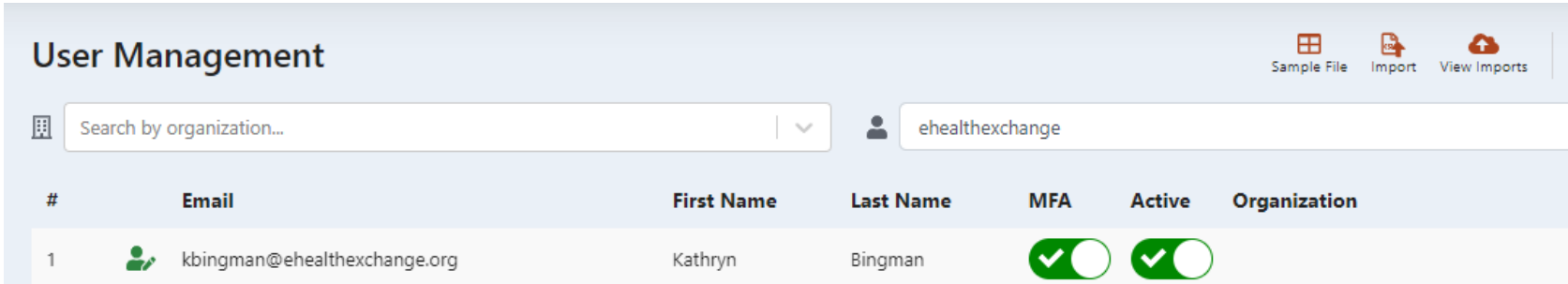
- **Identify transaction volume, response times, drill-down, & download.**
- **Who is querying your organization?**
- **Where are your clinicians searching?**
- **How much care occurs outside your organization?**

Access Hub Dashboard: https://insightsprod.ehealthexchange.org/#/hub

Hub Dashboard Access

Don't forget to maintain your Hub Dashboard accounts! If nobody at your organization currently has the rights to add/remove Dashboard accounts, please reach out to us at administrator@ehealthexchange.org.

Weekly Technical Work Group

Thursdays 4-5pm Eastern: email administrator@ehealthexchange.org for an invite

Typical Topics:

1. Technical Specifications
2. Testing
3. Hub Updates
4. Capacity planning [Final Thursday each month]

Request an invite: https://ehealthexchange.org/technical-workgroup-form/

How might **I** obtain assistance?

What	Who	How
Certificates	DirectTrust Support	support@directtrust.zohodesk.com
Hub and Hub Dashboard Assistance	Hub Service Desk	servicedesk@hub.ehealthexchange.org
Directory Assistance, setup, changes	Tech Support	techsupport@ehealthexchange.org
Testing Questions	Testing Team	testing@ehealthexchange.org
Questions about the DURSA, policy, or anything else!	Administrator	administrator@ehealthexchange.org

Visit: https://ehealthexchange.org/contact-us/