eHealth Exchange

Annual Meeting

NOV 14 2023

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State of the Network

Jay Nakashima, Executive Director

eHealth Exchange™

Look how we've evolved!

2018
- 186 Participants
- 3 Federal Agencies, 42 HIEs
- <20 **M**illion Annual Transactions

2019
- New Hub & Spoke Platform
- Joined Carequality
- Revised DURSA

2020
- Indian Health Service (IHS) Joined
- Fast-Tracked Electronic Case Reporting (eCr)

2021
- FDA Joined for FHIR Adverse Events
- PULSE Disaster Response Deployed Twice
- Only Network Validating Content Quality and Useability

2022
- FHIR R4 Exchange Live in 46 States
- HITRUST & NIST Cybersecurity Certification

2023
- 331 Participants
- 5 Federal Agencies, 60 HIEs
- 20 **B**illion Annual Transactions
- 46% Compound Annual Growth Rate (CAGR)

eHealth Exchange has been reinvented for next-generation exchange

Five years ago, eHealth Exchange restructured to become its own company with its own Board of Directors to refocus its interoperability efforts and lessen the government of the United States' interoperability burden.

How is eHealth Exchange different?

Diverse, Trusted Use Cases

- The longest-standing nationwide network supporting diverse use cases
- Ethical Exchange – trusted governance, inclusion, & transparency

Federal Connectivity

- The only network enabling providers & regional networks direct exchange with Indian Health Service (IHS), FDA and SSA
- Primary method to exchange with VA, DoD, & SSA

Incubated by the U.S. Department of Health and Human Services in 2006 as the "National Health Information Network (NHIN, NwHIN)".

eHealth Exchange is a non-profit Health Information Network (HIN) dedicated to the public good.

The oldest and most mature national patient data exchange network with over 20 billion transactions annually.

Vendor Agnostic

- The only vendor-independent nationwide network
- Scalable FHIR R4 infrastructure live in 46 states

Network of Networks

- Exchange with 60 regional and state HIEs
- Exchange with 30+national networks
- TEFCA℠ Candidate QHIN℠

Exchange for the Public Good

The only network exclusively committed to patient interests and public health

Integrity by Design

We uphold federal standards for **transparency, inclusion,** and **trust.**

- Founded as a federal agency initiative
- Incubated by U.S. Department of Health and Human Services
- Structured as a nonprofit health tech firm

Privacy and Security Through Stewardship

We honor **patient consent** decisions, don't **track** patient movements, **& never sell** data.

- Pass-through exchange
- No data repository to attract cyber-criminals
- No Social Security or driver's license numbers

Representative Oversight

Our participants **govern and manage** the network.

- Federal agencies
- Physicians & Health systems
- Regional & State HIEs

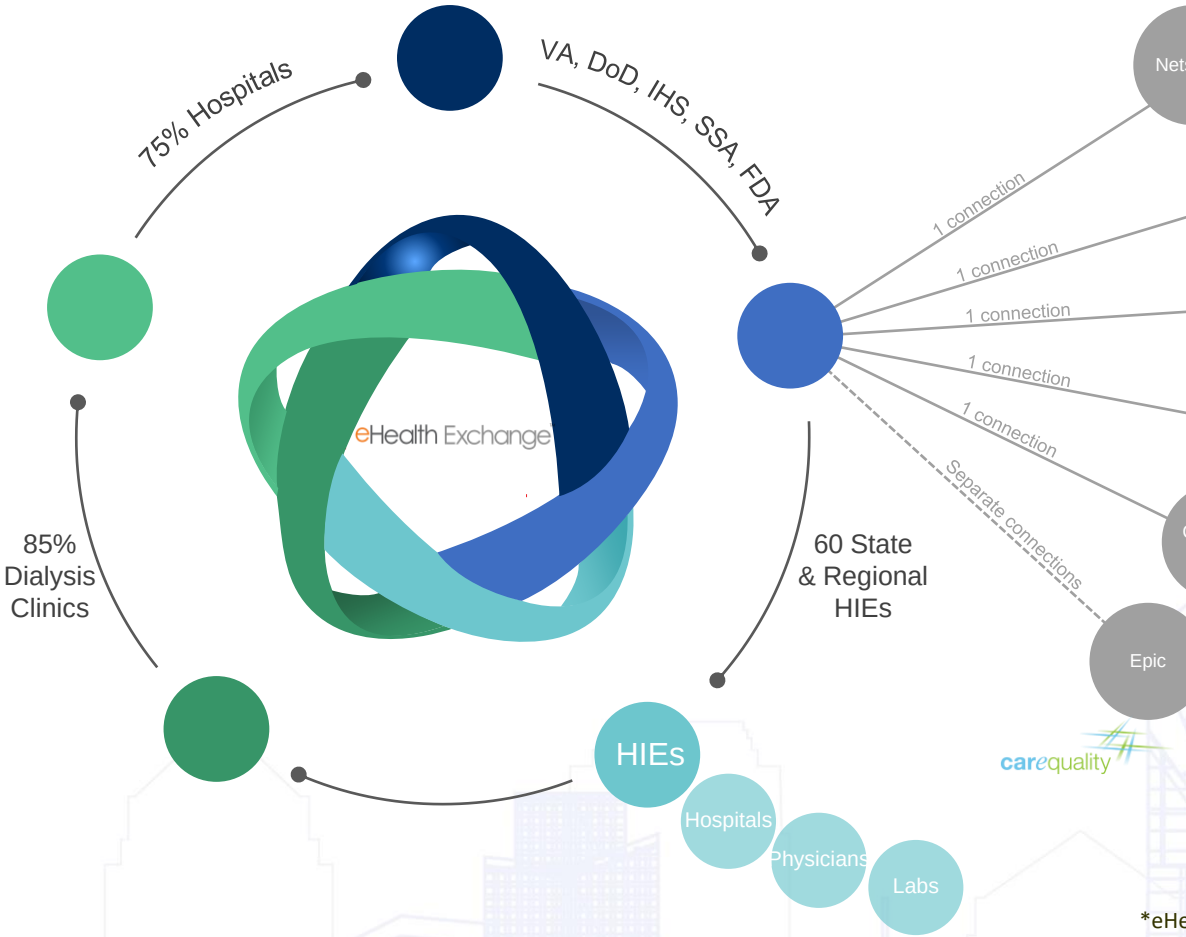
1 Connection & 1 Trust Agreement

Facilitate Exchange with 4,300 Hospitals Nationwide

This single Connection & single Trust Agreement also provide exchange with **Carequality** & **TEFCA***.

Using a hub & spoke architecture, eHealth Exchange participants leverage 1 connection to exchange **20** billion transactions annually within all 50 states

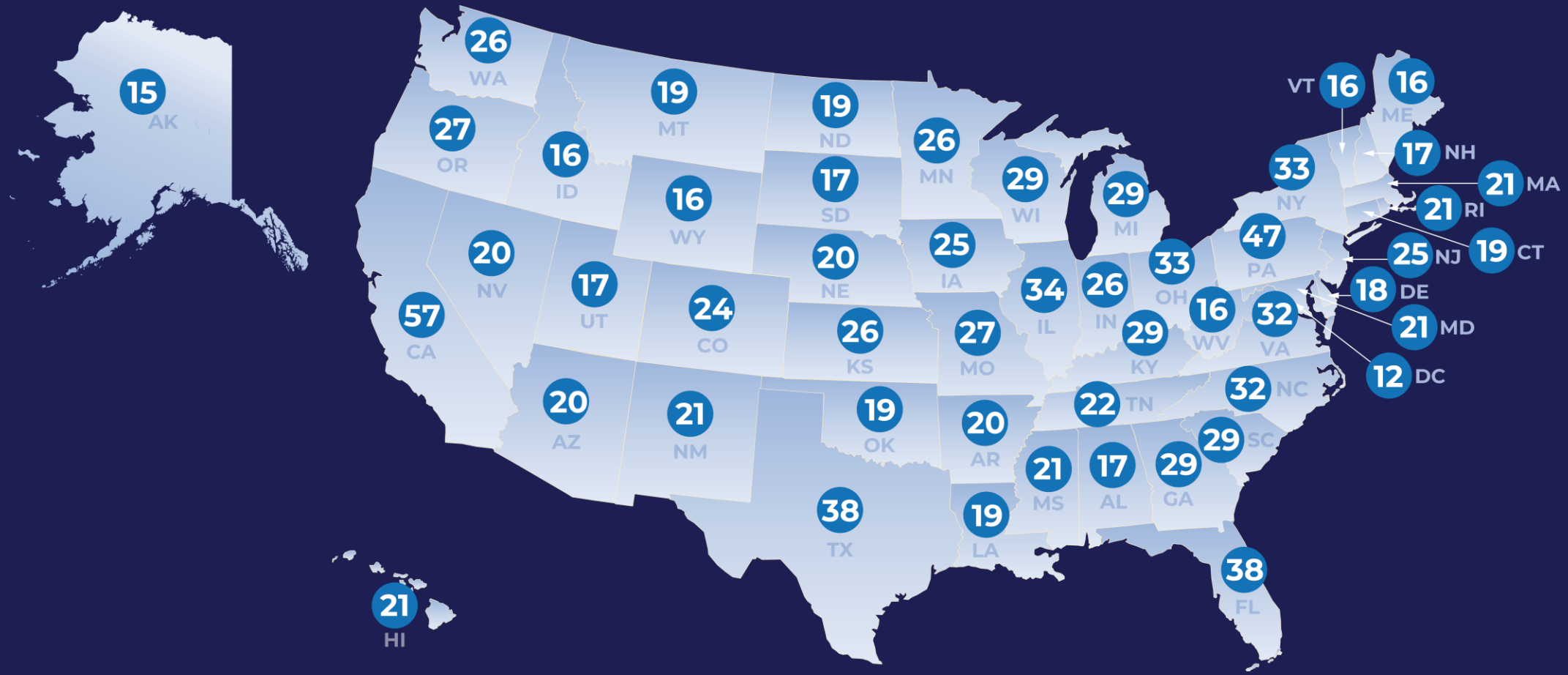
- Via FHIR
- Via C-CDAs



*eHealth Exchange has been designated a "candidate QHIN"; TEFCA is not yet live.

331 Participants

(Health Systems, Provider Groups, HIEs, Federal Agencies)



60 State & Regional HIEs

2023 Accomplishments

Innovative Value

Increased Value & Stickiness

- Cleared hurdles so some federal agencies began Carequality exchange
- Implemented Hub transformations to overcome interoperability barriers
- Implemented service-area specific patient discovery RLS fan-out in Hub Production
- Created HL7 DaVinci SMART on FHIR Proxy app to facilitate exchange between providers and payers

Expanded Community

Increased Reliance on Data Exchanged Use

- FDA FHIR proxy app – 12 Participants in 46 states exchanged Adverse Event data via FHIR R4
- Added 16 participants
- Exchanged 17% more C-CDAs (2.1B total)
- 22 participants provided 327M C-CCDAs to Carequality
- Facilitated 39M eCR submissions to APHL AIMS for 100 participants, plus 40M for Carequality

Specifications

Standardization

- Joined HL7 DaVinci to introduce technical specification for Networked FHIR
- Approved use of HL7 DaVinci specification
- Retired C32/CCD&CCDA R1.1 specifications
- Contributed to HL7 FHIR standards bodies:
  - HL7 UDAP
  - ONC FAST

Policies & Procedures

Governance & Process Rigor

- Created/Updated 14 Operating Policies
- Approved payer exchange use case
- Managed 7 Corrective Action Plans
- Updated TEFCA Terms & Conditions
- Updated TEFCA Protocols
- Delivered TEFCA & Info Blocking education
- Continued Candidate QHIN development

Automation & Analytics

Hub "Dashboard" Web Portal

- Enhanced Hub "Dashboard" to significantly improve ability to filter and summarize data exchange partner interactions

Participant Directory

- Upgraded Participant directory to FHIR R4
- Created Directory Maintenance web portal
- Implemented Hub Pragmatic Routing to increase sharing for dual-domain Participants

Business Discipline

Formalized Processes & Executed

- Renewed HITRUST and NIST Cybersecurity accreditation
- Created/updated 21 internal SOPs
- Updated Business Continuity, Info Blocking Compliance, & Disaster Recovery Plans
- TEFCA QHIN application accepted
- Prepared for possible 2023 TEFCA exchange in conjunction with **CRISP Shared Services** & **Alabama One Health Record**

2024 Roadmap*

TEFCA

Exchange Beyond Treatment

- Initial Go-Live Exchanging for:
  - Treatment**
  - Individual Access**
- RLS Enhancements & Optimization
- Subsequent Go-Lives for:
  - Public Health**
  - Healthcare Operations (HCO)**
  - Payment**

Reduce Burden

Provider-Payer Exchange via "Networked FHIR"

- Prior Authorizations
- Clinical Data Exchange (CDex)
- Payer Data Exchange (PDex)
- HL7 DaVinci Accelerator

Empower Public Health

New Capabilities via "Networked FHIR"

- Expand FDA Adverse Event
- Expand Electronic Case Reporting
- Query for Supplemental Data
- HL7 Helios Accelerator

Scale FHIR

Enhance and Automate Network Build & Maintenance

- Directory: Populate Sub-Participants
- Align attribution with RLS to enable CDex
- FHIR apps to streamline provider workflow
- HL7 FAST Accelerator

Data Quality

Content Useability for Care & Analytics (CDA & FHIR)

Option for Participants to confirm the Production data they receive conforms with standards:

- Terminology (e.g. LOINC, RxNorm)
- Required Fields
- Message Structure

** Not sequenced according to anticipated delivery dates*

*** Timing dependent upon Recognized Coordinating Entity (RCE)'s timing*

Provider ←→ Payer Exchange

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In-Network Transactions Today

Exchange by Permitted Purposes (annual)

1.	Treatment	~20 Billion ✓
2.	Public Health	~39M eCr + FHIR Adverse Events in 46 States ✓
3.	Authorization-Based Disclosures	~29M SSA Disability + 1M Life Insurance ✓
4.	Healthcare Operations (HCO)	Minimal (for care management, quality, etc)
5.	Payment	Minimal
6.	Individual Access	Minimal

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Prior Authorizations

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Prior Authorizations Today

Using Payer Web Portals

Providers make requests, often using ~20 different payer web portals:

- 20+ users/password
- Disjointed user experiences
- Lots of manual searching & data uploads

Using Smart-on-FHIR (EHR Plug-ins)

Regence/Cambia, CMS/Mettles, and others have proven Smart-on-FHIR apps work.

DA VINCI HL7 FHIR

To deploy at scale:

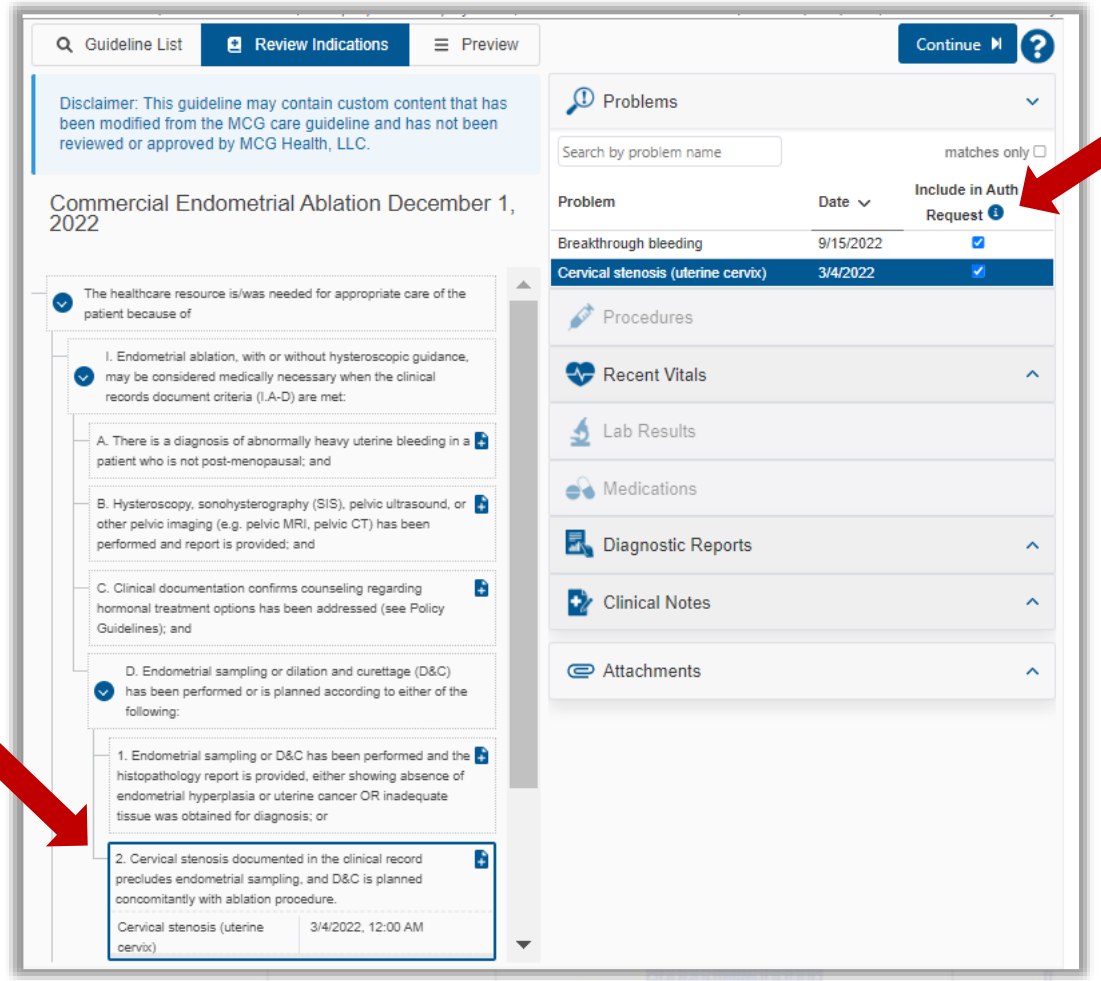
1. Payers need single nationwide trust agreement with one connection to providers.
2. Providers need a single EHR app (not 20), trust agreement, and single technical connection to work with payers nationwide.

Regence Blue Cross EHR Plug-In (Smart-on-FHIR app)

1. Provider selects patient, procedure code, place of service code.

2. App confirms eligibility, benefit coverage, and identifies whether prior authorization is required.

3. If prior authorization is required, app identifies the criteria required for approval. [In this example, A, B, C, and D must be met.]



4. App automatically retrieves specific data it can find from the EHR [D. Cervical Stenosis in this example]. **Provider can deselect (withhold) auto-extract data** if desired**.**

5. Since app couldn't find evidence of the following, provider, must select evidence for:
   A. Diagnosis of abnormally heaving bleeding…
   B. Imaging study
   C. Counseling regarding hormonal treatment options.

6. App immediately responds 89% of the time (typically no auth needed) with 41% auto-approval when auth required; otherwise determination waits for Utilization Management nurse review.

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CDex – Clinical Data Exchange

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Provider & Payer Clinical Data Exchange (CDEX)

Today

1. Payers and providers actively exchange patient-specific clinical data.
   - Care gaps (bi-directional) for HEDIS and other quality efforts.
   - Risk-Adjustment
   - Payers retrieve population-level clinical data for attributed patients to reduce manual chart chasing
2. But this population-level data exchange **lacks scalability** (consistency and automation) required to reduce strain.

HL7 DaVinci CDEX

- HL7 DaVinci's technical specification has been designed by providers and payer to standardize provider-payer clinical exchange.
- Payers can only retrieve data for attributed members when they share full demographics.
- Providers consent to exchange when they are satisfied HIPAA Minimum Necessary has been addressed.
- This is often solved by payers retrieving data only for each date-based Encounter.

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Incentives to Accelerate Provider-Payer Clinical Data Exchange

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Incentive for Payers to Exchange with eHealth Exchange Providers and HIEs

To accelerate healthcare burden reduction and recognize the investments needed to innovate, eHealth Exchange is offering a financial incentive for the first 3 early adopter payers who **join eHealth Exchange by 1/31/2024** for Prior-authorization or CDEX exchange, **begin testing by 3/31/2024**, and **go-live in Production** exchanging with other eHealth Exchange participants **by 6/30/2024**.

As an example, a payer with $3B annual revenue would typically pay eHealth Exchange a $200K annual fee for network participation, plus a tbd cost-based transaction volume fee to cover eHealth Exchange's incremental costs.

Network Participation Fee*	Variable Service Fee*
Year 1: 100% discount Year 2: 75% discount Year 3: 50% discount Year 4: 25% discount *This is a one-time offer that does not entitle participants to any subsequent fee waivers.	Year 1: 100% discount Year 2: 50% discount Year 3: no discount Year 4: no discount *Assumes payers commit to collaborate with eHealth Exchange to measure and optimize data retrieval rates so that fees remain affordable.

As a non-profit focused on public good, eHealth Exchange commits to transparently generate a revised fee schedule based upon actual costs and utilization. This will also encourage collaboration to find the most efficient exchange solutions.

Incentive for Providers and HIEs to Exchange with eHealth Exchange Payer Participants

To accelerate healthcare burden reduction and recognize the investments needed to innovate, eHealth Exchange will waive the first 15* non-federal Participants' annual Network Participation fee for one year who:

1. Signal intent to participate by 1/31/2024.
2. Begin testing by 3-31-2024,
3. Successfully exchange with payer Participants via HL7 DaVinci specifications in Production by 6/30/2024.

The production data exchange must occur for prior authorization, CDEX, or PDEX, in accordance with HL7 DaVinci specifications, and the production data exchange must continue for at least six months.

Public Health

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Expanding Public Health Exchange

Today

1. Electronic Case Reporting (eCr)
2. Adverse Events (FDA FHIR)
   - Adverse Event Notifications
   - Supplemental Data Queries
3. PULSE Disaster Response

Near-Term?

1. Supplemental Data Queries
   - Demographics to improve record linking
   - Attributes to prove equitable care delivery
   - Clinical records to enable case follow-up
2. Help provide plug-ins* to accelerate State, Tribal, Local and Territorial (STLT) public health as they connect with data networks
3. Aggregate** pseudonymized STLT data for national statistics and coordination.

*Data Integration Building Blocks (DIBBs)
**Tokenization such as PPRL (Privacy-Preserving Record Linking)

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Call to Action

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Collaboration Needed!

How can you accelerate interoperability today?

Providers

1. **Provider-Payer Incentive**
   Adopt and optimize FHIR for burden reduction (in alignment with HL7 DaVinci)

2. **Public Health Exchange**
   - FDA Adverse Events (FHIR)
   - Electronic Case Reporting (eCr)

3. **Informed Strategies**
   - Examine exchange patterns using Hub Dashboard to inform next moves.

HIEs

1. **Provider-Payer Incentive**
   Adopt and optimize FHIR for burden reduction (in alignment with HL7 DaVinci)

2. **Public Health**
   Enable queries for supplemental data (in alignment with HL7 Helios)

3. **Join TEFCA**
   QHIN onboarding

4. **Informed Strategies**
   Examine exchange patterns using Hub Dashboard to inform next moves.

Government

1. **Modernization**
   Adopt FHIR for Burden Reduction (in alignment with HL7 DaVinci)

2. **Join TEFCA**
   QHIN onboarding

Payers

1. **Standardize & Scale**
   FHIR for Burden Reduction (in alignment with HL7 DaVinci)

2. **Join eHealth Exchange**
   Sign DURSA to exchange today and prepare for near-future TEFCA expansion for FHIR, Payment & Operations.

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THANK YOU FOR YOUR PARTICIPATION

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