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# TEFCA for Public Health

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Many thanks to the Joint Public Health Informatics Taskforce for their help in organizing this webinar.



- Welcome
- Overview: TEFCA Basics
- TEFCA and Public Health
- Exchange Purpose Implementation SOP: Public Health
  - » Definitions
  - » Level 1 & 2 Exchange Purposes
  - » Technical Specifications Overview
- Looking Forward: TEFCA & Public Health
- Q and A



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# Welcome

## **Micky Tripathi**

Assistant Secretary for Technology Policy  
National Coordinator for Health Information Technology  
Chief Artificial Intelligence Officer (Acting)

## **Jennifer Layden**

Director for the Office of Public Health Data, Surveillance, and Technology.  
Centers for Disease Control and Prevention

“On July 1, 2024, the first two public health use cases – electronic case reporting (eCR) and individual query went live. Through TEFCA, there is universal governance, policy, and a technical floor for nationwide interoperability”

First public health  
use cases for  
TEFCA™ are now  
Live!



**Why This Matters:** *“Lays the foundations for faster exchange of more interoperable data between health care and public health while reducing the complexity of point-to-point connections.”*



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# TEFCA Basics



## TEFCA Goals

- 1 Establish a universal governance, policy, and technical floor for nationwide interoperability
- 2 Simplify connectivity for organizations to securely exchange information to improve patient care, enhance the welfare of populations, and generate health care value
- 3 Enable individuals to gather their health care information

## Statutory Authority

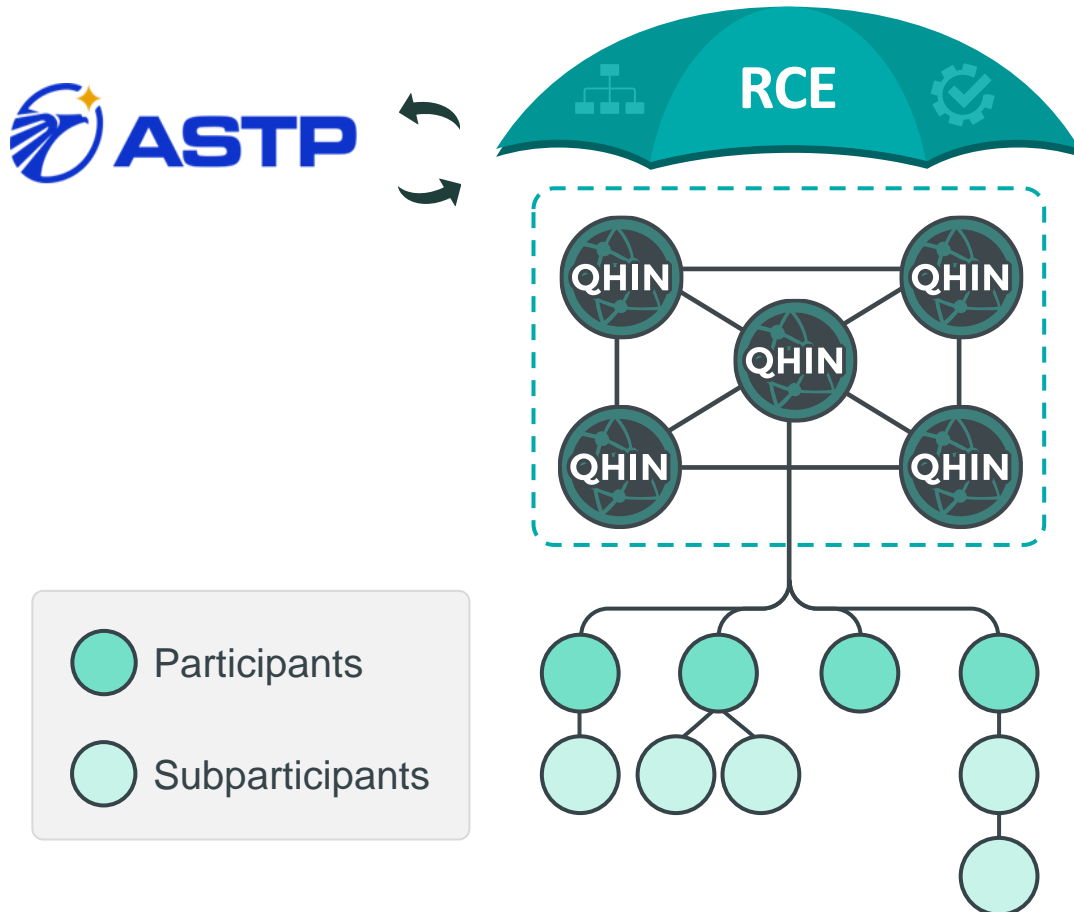
### 21<sup>st</sup> Century Cures Act - Section 4003(b)

*“[T]he National Coordinator shall convene appropriate public and private stakeholders to **develop or support a trusted exchange framework** for trust policies and practices and for a **common agreement** for exchange between health information networks.”*

*[emphasis added]*



# Exchange Under TEFCFA



**ASTP** defines overall policy and certain governance requirements

**RCE** provides oversight and governing approach for QHINs

**QHINs** connect directly to each other to facilitate nationwide interoperability

**Each QHIN** connects Participants, which connect Subparticipants

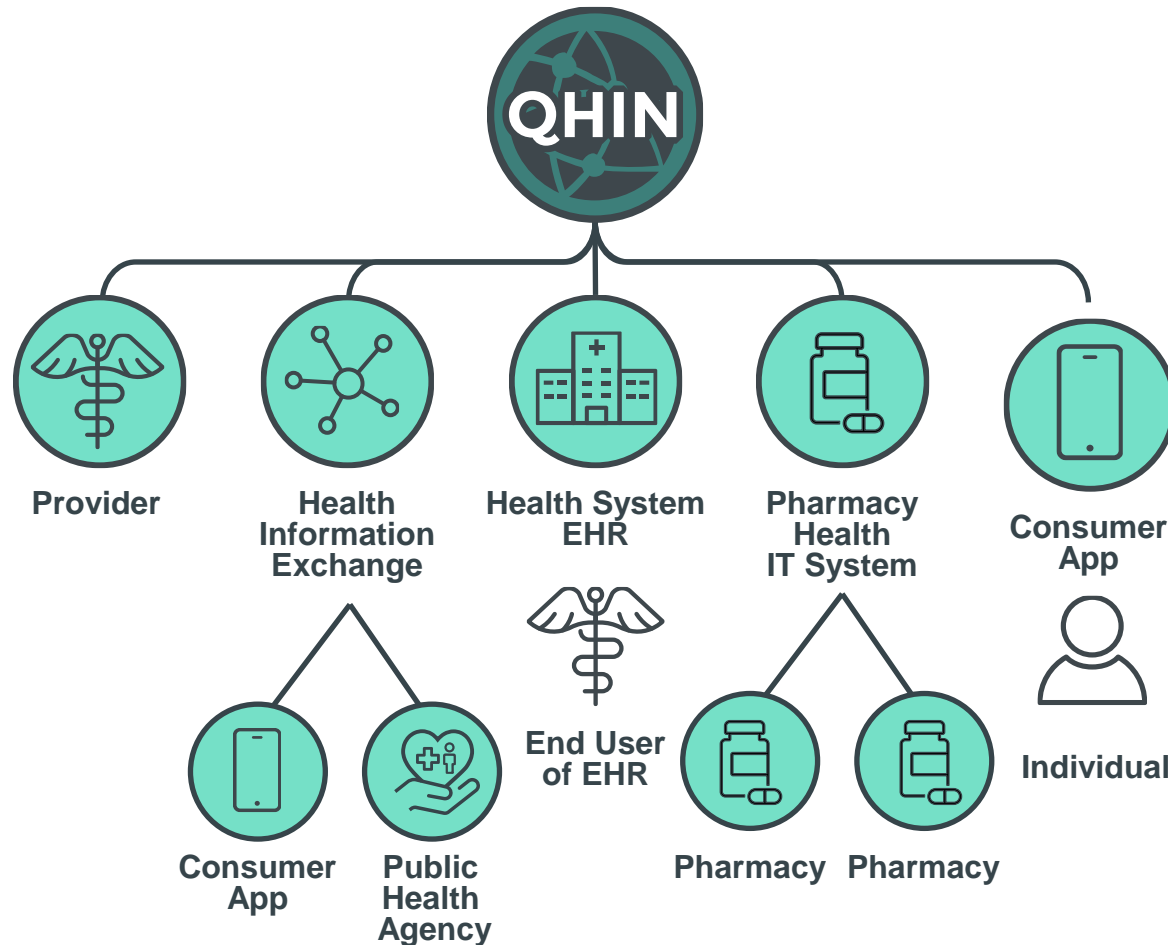
**Participants and Subparticipants** connect to each other through TEFCFA Exchange

- Participants contract directly with a QHIN and may choose to also provide connectivity to others (Subparticipants), creating an expanded network of networks
- Participants and Subparticipants agree to the same Terms of Participation and can generally participate in TEFCFA Exchange in the same manner

# Example of QHIN, Participants, and Subparticipants



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In this example, the QHIN supports a broad range of different Participants, including a provider, a health information exchange (HIE), an electronic health record (EHR) system, a pharmacy health information technology (IT) system, and a consumer application that is an Individual Access Services (IAS) Provider.

The members of the HIE and the pharmacy health IT system are Subparticipants, **including the Public Health Agency.**



# TEFCA Components



**Framework  
Agreements**



**Standard  
Operating  
Procedures**



**Technical  
Requirements**



**RCE  
Directory**



**Oversight &  
Compliance**



**Governance**



## Trusted Exchange Framework

- A common set of foundational principles for policies and practices to facilitate data sharing among health information networks.
- Broad industry alignment with these principles can help entities enter into more uniform contractual relationships that are required for improved electronic flow of health information where and when it is needed.

## The seven principles:

Standardization

---

Openness and Transparency

---

Cooperation and Non-Discrimination

---

Privacy, Security, and Safety

---

Access

---

Equity

---

Public Health



## Principal/Delegate Relationship

A TEFCA connected entity may authorize a Delegate to share information on their behalf through a Principal/Delegate relationship.

- **What is a Principal?**

- » A QHIN, Participant, or Subparticipant that is acting as a Covered Entity, Government Health Care Entity, Non-HIPAA Entity (NHE) Health Care Provider, a Public Health Authority, a government agency that makes a Government Benefits Determination, or an IAS Provider (as authorized by an Individual) when engaging in TEFCA Exchange.

- **What is a Delegate?**

- » Delegate means a **First Tier Delegate** or **Downstream Delegate**.
- » **First Tier Delegate:** a QHIN, Participant, or Subparticipant that (i) is not acting as a Principal when initiating or Responding to a transaction via TEFCA Exchange and (ii) has a direct written agreement with a Principal authorizing the First Tier Delegate to initiate or Respond to transactions via TEFCA Exchange for or on behalf of the Principal. For purposes of this definition, a “written agreement” shall be deemed to include a documented grant of authority from a government agency.
- » **Downstream Delegate:** a QHIN, Participant, or Subparticipant that (i) is not acting as a Principal when initiating or Responding to a transaction via TEFCA Exchange and (ii) has a direct written agreement with a First Tier Delegate or another Downstream Delegate authorizing the respective Downstream Delegate to initiate or Respond to transactions via TEFCA Exchange for or on behalf of a Principal.



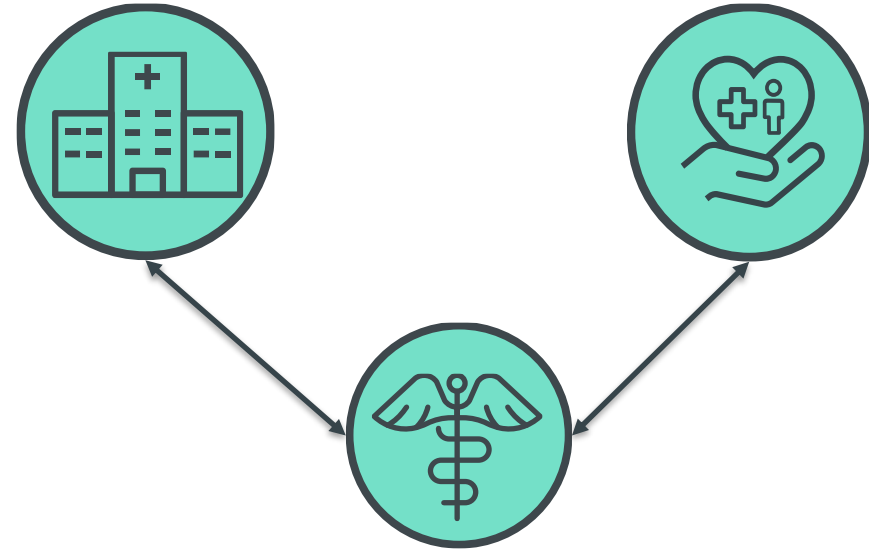
# Principal / Delegate Example for Public Health

## In this example:

- All parties have signed a Framework Agreement and participate in TEFCA
- The Delegate HIE/Intermediary has a signed agreement with the STLT authorizing it to act on behalf of the Principal STLT for specific purposes
- The STLT will provide a Delegation Notice documenting that agreement and the STLT's QHIN will document this relationship in the RCE Directory
- Individual TEFCA transactions will identify the Principal as well as the Delegate so that respondent has all relevant information

Principal:  
STLT\* Public Health Agency uses a Delegate HIE/Intermediary to conduct Queries on its behalf (such as for case investigation) using TEFCA for the T-PH XP Codes

Health System



Delegate:  
An HIE or other intermediary that supports the STLT for the Public Health Exchange Purpose

\*STLT: State, Tribal, Local, and Territorial



# Standard Operating Procedures (SOP)

## What is an SOP?

- An SOP is a written procedure or other provision that is incorporated by reference into the Framework Agreements to provide detailed information or requirements related to TEFCA Exchange
- SOPs address, among other things, governance, privacy and security requirements, RCE directory services, and QHIN application and designation
- Each SOP identifies the parties to which it applies (QHINs, Participants, Subparticipants)

## What is the Exchange Purposes (XPs) SOP?

The XPs SOP details specifications relevant to when and how information can be requested or shared through TEFCA Exchange

## What is an Exchange Purpose (XP) Implementation SOP?

XP Implementation SOPs provide additional details for specific use cases, as needed

## Why SOPs?

- SOPs create the flexibility for TEFCA to evolve and expand over time
- SOPs will be created and modified as needed and finalized through a defined change management process
- Access the SOPs on the [RCE website](#)

# SOP: Exchange Purposes (XPs)



- The Exchange Purposes (XPs) SOP defines the authorized XPs and the XP Codes associated with each
- Every transaction that occurs via TEFCA Exchange MUST include the XP Code that represents the reason for why the transaction is being initiated
- Each of the authorized XPs may also have specific use cases that are identified with their own XP Code (Level 2)
- Level 2 codes will generally begin with the same XP Code as its Level 1 affiliate

For example, a use case under the Public Health XP Code would always begin with “T-PH”, and Level 2 would be T-PH-ECR

Table 1. TEFCA XP Codes

Authorized XP	XP Code	Level
Treatment	T-TREAT	Level 1
TEFCA Required Treatment	T-TRTMNT	Level 2
Payment	T-PYMNT	Level 1
Health Care Operations	T-HCO	Level 1
Care Coordination/Case Management*	T-HCO-CC	Level 2
HEDIS Reporting*	T-HCO-HED	Level 2
Quality Measure Reporting*	T-HCO-QM	Level 2
Public Health	T-PH	Level 1
Electronic Case Reporting	T-PH-ECR	Level 2
Electronic Lab Reporting	T-PH-ELR	Level 2
Individual Access Services	T-IAS	Level 1
Government Benefits Determination	T-GOVDTRM	Level 1

\*Beginning 18 months following the initial publication date of the SOP, all Responding Nodes MUST Respond to Care Coordination, HEDIS, and Quality Measures





## QHIN Technical Framework

- The QHIN Technical Framework (QTF) outlines the technical, functional, privacy, and security requirements necessary for exchange of data via TEFCA
- The QTF primarily addresses TEFCA Exchange requirements that apply to QHINs
- Some requirements in the QTF must be enforced at the Participant and Subparticipant levels
- The QTF leverages standards from HL7 and Integrating the Health Care Enterprise (IHE)

**Access the QTF on the [RCE website](#)**





TEFCA Exchange enables TEFCA connected entities to:

## Use RCE Directory Service

- To find Exchange partners with data for a given Exchange Purpose
- To determine FHIR endpoints when available

## Use Message Delivery

- To send information in various formats (e.g., C-CDA, FHIR bundle, PDF, etc.)

## Use QHIN Query

- To find which TEFCA connected entities have information on a person
- To discover what information is available
- To request the needed information

## Use Facilitated FHIR Query to support point-to-point FHIR Exchange

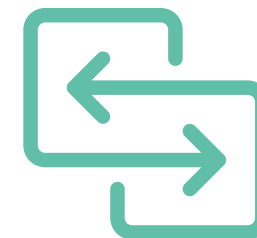
- To find which TEFCA connected entities have information on a person
- To request the needed information via FHIR

**Note:** Entities connected to TEFCA must be able to respond to Queries but do not have to be able to receive data sent to them using Message Delivery.



## RCE Directory Service

- The RCE maintains the RCE Directory Service to support exchange of information between and among TEFCA connected entities
- This key component of TEFCA Exchange enables access to the electronic endpoints and other necessary information about all entities that participate
- RCE Directory information is kept up to date to ensure that all information flows to the right destination
- TEFCA connected entities can share information without having to know electronic addresses in advance
- QHINs are responsible for maintaining entries in the RCE Directory Service
- The [RCE Directory Service Requirements Policy SOP](#) describes requirements that QHINs must follow when maintaining Directory Entries, in addition to the specifications set forth in the Framework Agreements, QTF, RCE Directory Service Implementation Guide, and applicable SOPs.





## RCE Oversight Activities

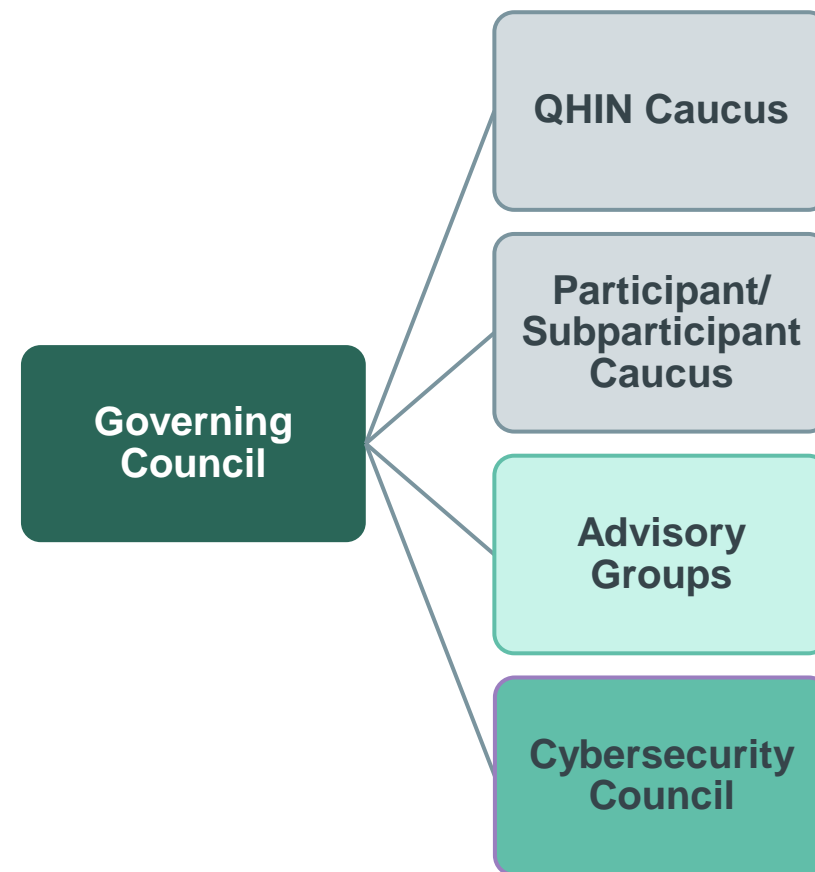
- **QHIN Designation:** Reviews applications from Health Information Networks (HINs) seeking QHIN status and administers a rigorous testing and onboarding process before Designation as a QHIN
- **Collaboration:** Collaborates with ASTP and the TEFCA community to update policies and expand use cases over time
- **Address Noncompliance:** Addresses instances of noncompliance, ensuring adherence to established standards, policies, and the Common Agreement
- **Monitoring of Network Performance:** Collects, reviews, and analyzes metrics reported by QHINs regarding exchange activities, volumes, and related outcomes
- **Development and Oversight of Governance:** Establishes, supports, and oversees TEFCA Governing Council and other governing bodies





## Governing Approach

- The Common Agreement establishes a Governing Council that:
  - » Reviews amendments to the Common Agreement, QTF, and SOPs
  - » Serves as a resource to the RCE and a forum for discussion
  - » Provides oversight for resolution of disputes
- A Transitional Council serves during TEFCA's first year
- ASTP oversees the work of the RCE, which has specific obligations to follow the governance procedures set forth in the Common Agreement
- Advisory Groups will be formed to provide targeted input from stakeholders





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# TEFCA and Public Health





**Rationale:** Access to health information is an important tool for Public Health Authorities (PHAs) to, among another things:

- Assess and monitor population health
- Investigate, diagnose, and address health hazards and root causes.

**Initial Use Cases:** The XP Implementation SOP includes specifications for two use cases that allow PHAs to identify disease trends, track and monitor outbreaks, and prevent and control future outbreaks:

- Electronic Case Reporting, and
- Electronic Laboratory Reporting

**Jurisdiction:** Given the importance of jurisdiction in public health reporting, the technical specifications referenced in the XP Implementation SOP include both the Health Care Provider's location and the patient's residence.

# Status of TEFCA Policy and Technical Documents

Due to the complexities and variations in laws concerning exchange for public health purposes, PHAs are not required to respond to any Queries from requesters, although they are encouraged to do so as appropriate under Applicable Law.

TEFCA operates within existing law, including HIPAA and any federal, State, territorial, local and tribal laws specific to the sharing of health information.

In the event of any inconsistencies, any laws or regulations applicable to PHAs will take precedence over the terms in the Framework Agreements or this SOP.

## **Applicable Law** (federal, state, local, territorial, etc.)

### **Framework Agreements**

Common Agreement (QHINs)  
Terms of Participation (Participants/Subparticipants)

### **QHIN Technical Framework**

### **Standard Operating Procedures (SOPs)**

# Vignette: Public Health Exchange Purpose\*



## Use Case: Public Health Authority queries TEFCA for a case investigation

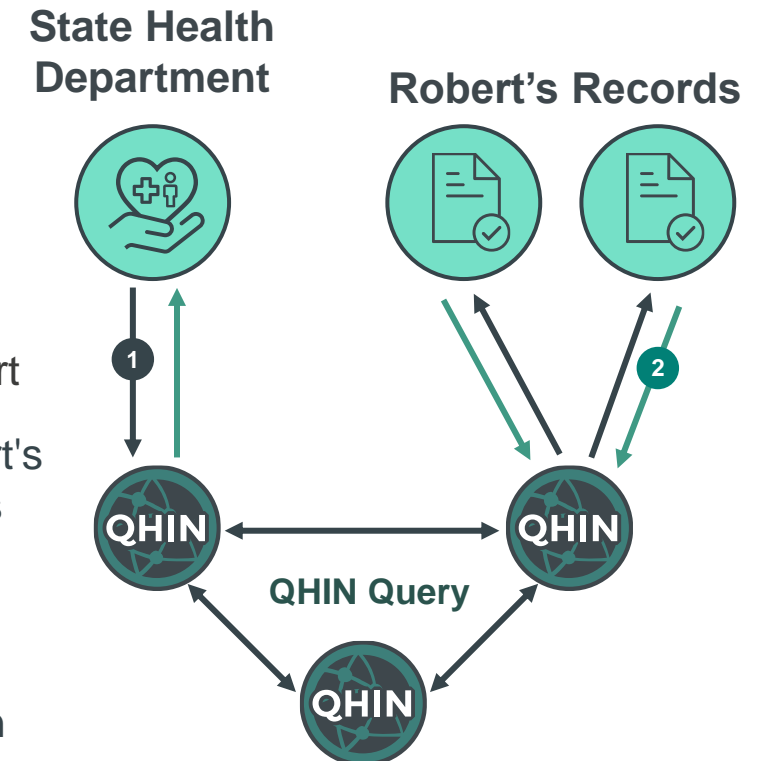
*Dr. Singh, an Epidemiologist at a State Health Department, needs to investigate a medical case in which a patient, Robert, was diagnosed with an infectious disease. Dr. Singh has the authority to learn more about Robert's care and uses TEFCA Exchange to request information (Public Health Exchange Purpose).*

**Initiating Action:** Dr. Singh requests Robert's medical records through the health department's TEFCA connector

### QHIN Query:

- The QHIN associated with the State Health Department's TEFCA connector initiates a Query to the other QHINs for the purposes of public health
- The other QHINs Query their TEFCA connected entities for information on Robert
- Using automation, connected entities may respond with information about Robert's medical records, or return a message that they do not have any relevant records
- The QHINs with information about Robert send it to the initiating QHIN

**Delivery:** The initiating QHIN notifies the State Health Department about available records so that Dr. Singh can access the information needed for a case investigation

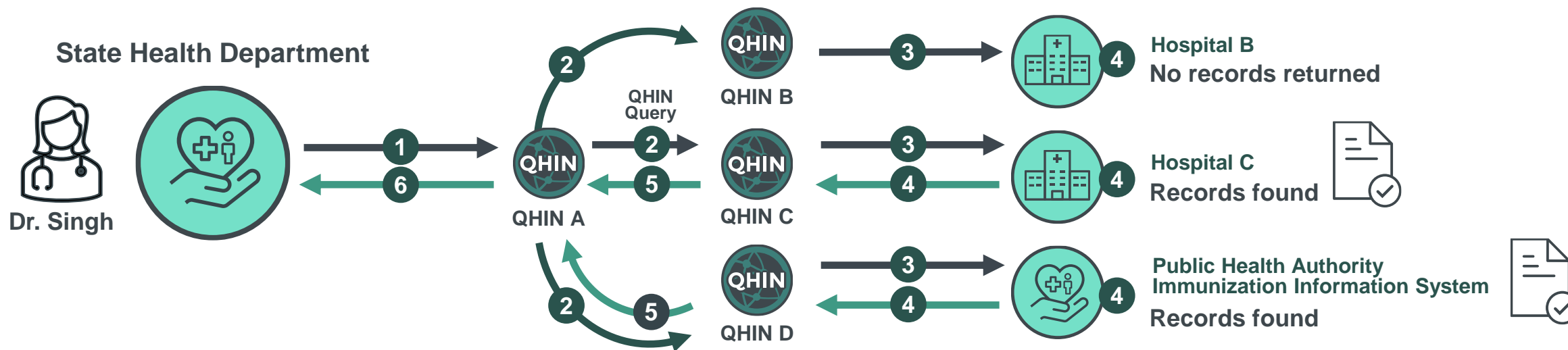


# Example: Public Health Exchange Purpose\*



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## Use Case: Public Health Authority queries TEFCA for a case investigation



1 Dr. Singh (Participant) is performing a case investigation. She has a public health need and the appropriate authority to understand all previous care provided to a particular patient, Robert. Dr. Singh sends a request for medical records to QHIN A for the Exchange Purpose of Public Health.

2 QHIN A initiates QHIN Query to all QHINs.

3 QHIN B, C, D execute their query methodology to request Robert's records from their Participants.

4 Hospital B finds no records. Hospital C and a Public Health Authority's Immunization Information System (both Participants) respond to their respective QHINs with Robert's records.

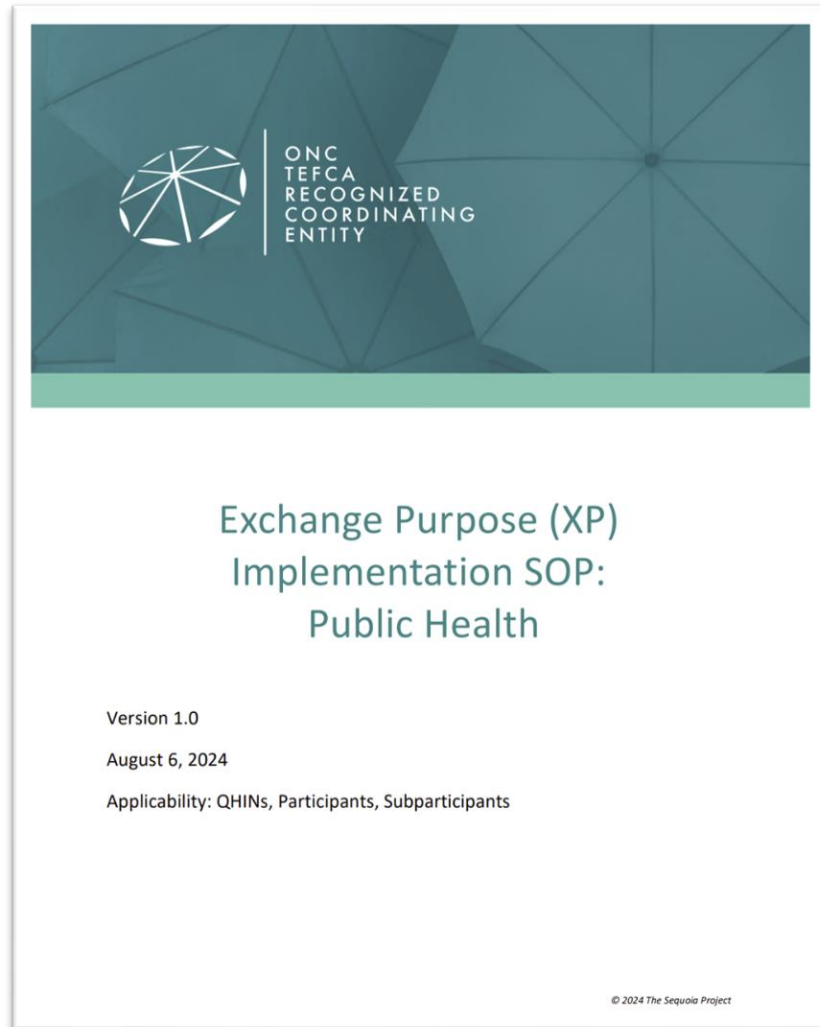
5 In Response, QHIN C, D send Robert's records to QHIN A.

6 QHIN A sends Robert's records to Dr. Singh.



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# Exchange Purpose (XP) Implementation SOP: Public Health



**Purpose:** In addition to the Framework Agreements, QTF, and SOPs, this SOP identifies requirements that QHINs, Participants, and Subparticipants are required to follow when asserting the Public Health Exchange Purpose

Use cases described in this SOP, including Electronic Case Reporting and Electronic Laboratory Reporting, allow Public Health Authorities (PHAs) to identify disease trends, track and monitor outbreaks, and prevent and control future outbreaks.

## SOP Sections:

- 1.Common Agreement References
- 2.SOP Definitions
- 3.Purpose
- 4.Introduction
- 5.Level 1: Public Health (PH)
- 6.Level 2: Electronic Case Reporting (eCR)
- 7.Level 2: Electronic Laboratory Reporting (eLR)





## Definitions

- **Electronic Case Reporting (eCR):** is the electronic exchange of case report information between QHINs, Participants, Subparticipants, and Public Health Authorities.
- **Electronic Laboratory Reporting (eLR):** is the transmission of electronic laboratory reports between QHINs, Participants, Subparticipants, and Public Health Authorities.
- **Public Health:** a Request, Use, Disclosure, or Response permitted under the Health Information Portability and Accountability Act (HIPAA) Rules and other Applicable Law for public health activities and purposes involving a Public Health Authority, where such public health activities and purposes are permitted by Applicable Law, including a Use or Disclosure permitted under 45 CFR § 164.512(b) and 45 CFR § 164.514. For the avoidance of doubt, a Public Health Authority may Request, Use, and Disclose TEFCA Information (TI) hereunder for Public Health to the extent permitted by Applicable Law and the Framework Agreements

See the Centers for Prevention and Disease Control (CDC) website for additional information related to [electronic case reporting \(eCR\)](https://www.cdc.gov/ecr/php/about/index.html) and [electronic laboratory reporting \(eLR\)](https://www.cdc.gov/electronic-lab-reporting/php/about/index.html).



Use cases described in the Public Health XP SOP, including Electronic Case Reporting and Electronic Laboratory Reporting, allow Public Health Authorities (PHAs) to identify disease trends, track and monitor outbreaks, and prevent and control future outbreaks.

*Table 1 Public Health XP Codes*

XP Code Level	XP	XP Code
Level 1	Public Health	T-PH
Level 2	Electronic Case Reporting	T-PH-ECR
Level 2	Electronic Laboratory Reporting	T-PH-ELR

Level 1 exchange may include, but is not limited to, the sharing of information between PHAs and reporting of information from a PHA to the CDC.

Information transacted under the Public Health Exchange Purpose **MUST NOT** be persisted or Used by any Node along the transaction chain that is not the addressed recipient, unless agreed to by the data source or recipient through a specific written agreement or as needed for a required audit as specified in the QTF.

TEFCA also has strong Privacy and Security Protections and Applicable Law always applies.



# Technical Requirements

This section summarizes key aspects of the full technical requirements included in the XP Implementation SOP for Public Health. Please refer to the full document for more information.



The XP Implementation SOP provides technical requirements for:

- **QHIN Message Delivery**
  - Electronic Case Reporting
  - Electronic Laboratory Reporting
- **QHIN Query**
  - Query Request
  - QHIN Query Response
- **Facilitated FHIR**
  - FHIR Push
    - Electronic Case Reporting
    - Electronic Laboratory Reporting
  - FHIR Request
  - FHIR Query Response

## Note

Only PHAs may use  
QHIN Query.

If a provider wants to  
Query a PHA, they  
would use a Treatment  
XP Code.

# Public Health TEFCA Transaction Requirements:

## T-PH (Level 1) – QHIN Query



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Public Health Authorities may use QHIN Query for case investigation or other information gathering purposes allowed under Applicable Law. QHIN Query is limited to individual patient requests.

- Only Initiating Nodes of a PHA or its Delegate may initiate a QHIN Query using the T-PH XP Code
- An Initiating Node **MUST** only send Message Deliveries that is listed in the RCE Directory Service as capable of receiving Message Deliveries
- All Initiating Nodes **MUST** include
  - » the RCE Directory entry Organization Resource ID at the most granular level
  - » HomeCommunityID in the SAML information
  - » include the jurisdiction the PHA represents, using the relevant federal, state, territorial, local or tribal name
- Queries **MUST** include a date range in the QHIN Query metadata, and the PHA RCE Directory Service OrganizationID
- All Responding Nodes **SHOULD** respond to Queries under Public Health according to the Framework Agreements and Applicable Law
  - » A Query Response **SHOULD** return, at a minimum, the USCDI v1 data classes and elements requested by the Initiating Node



# Public Health TEFCA Transaction Requirements: Electronic Case Reporting (T-PH-ECR)

Transaction	Electronic Case Reporting (T-PH-ECR, Level 2) Referenced Implementation Guides
QHIN Message Delivery	<p><b>Prior to January 1, 2026</b> <b>Health Care Providers:</b> <a href="#">HL7 CDA® R2 Implementation Guide: Public Health Case Report Release 2: the Electronic Initial Case Report (eICR) Release 1, STU Release 1.1 - US Realm</a></p> <p><b>Public Health Authorities and Delegates:</b> <a href="#">HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.0 - US Realm</a></p> <p><b>As of January 1, 2026</b> <b>Health Care Providers:</b> <a href="#">HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1 - US Realm</a></p> <p><b>Public Health Authorities and Delegates:</b> <a href="#">HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.1 - US Realm</a></p>

- If Initiating Node sends a Message Delivery for T-PH-ECR that requires a Reportability Response, the Initiating node MUST support the required Reportability Response standards

# Public Health TEFCA Transaction Requirements: Electronic Lab Reporting (T-PH, ELR)

Transactions	Electronic Lab Reporting (T-PH-ELR, Level 2) Referenced Implementation Guides
QHIN Message Delivery	<a href="#">HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm)</a>

# Public Health TEFCA Transactions Requirements: FHIR for Public Health (T-PH)



- FHIR Queries must include jurisdiction the PHA represents and date range in the OAuth flow during the Authorization phase, using the extension defined in Table 2 of the SOP.
  - » Any given jurisdiction SHOULD use the same string value for all FHIR Queries.
- MUST include a date range in the FHIR metadata
- Initiating Nodes MUST use the appropriate, corresponding content standards as listed in the SOP
- All Responding Nodes SHOULD respond to Requests for Public Health
  - » If a Responding Node responds to a QHIN Query or FHIR Query with the PH XP Code, then it SHOULD return, at a minimum, the USCDI v1 data classes and data elements that are maintained and requested by the Initiating Node

# Public Health TEFCA Transactions Requirements: FHIR for Electronic Lab Reporting (T-PH-ELR)

Transaction	Electronic Laboratory Reporting (T-PH-ELR, Level 2) Referenced Implementation Guides
FHIR Push	<a href="#"><u>US Core Laboratory Result Observation Profile</u></a>



- **The RCE has aligned the standards in the Public Health XP SOP with the latest versions adopted by ASTP** and intends to adopt additional and later versions of standards in accordance with federal regulations. **This includes, among others, the USCDI+ Public Health**
- **The RCE anticipates judiciously expanding the Public Health XP Implementation SOP over time** to address additional public health priorities that require detailed implementation guidance, including, but not limited to, immunization data, vital records, prescription drug monitoring, hospital capacity, chronic disease, and other registry reporting
- **The RCE will work with the public health community through the TEFCA governance process** to prioritize additional use cases, develop a roadmap, identify relevant standards, and create implementation guidance





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# Educational Resources



## Fact Sheets

- 📄 FHIR Roadmap for TEFCA Exchange Version 2.0
- 📄 TEFCA Cross Reference Resource
- 📄 TEFCA Glossary
- 🔗 Questions to ask your QHIN or other TEFCA connectors
- 🔗 TEFCA for Executives
- 🔗 TEFCA on FHIR
- 🔗 TEFCA for Individuals
- 📄 Benefits for Health Information Networks (HINs)
- 🔗 Benefits for State Governments and Public Health
- 🔗 Benefits for Patients and Consumers
- 🔗 Benefits for the Payer Community
- 🔗 Benefits for Health Care Providers Across the Continuum

These Frequently Asked Questions address common questions and will be updated regularly.

- **What is TEFCA?**
- **How Does TEFCA Work?**
- **How Do I Participate in TEFCA Exchange?**
- **How is TEFCA Governed?**
- **How are QHINs Designated?**

<https://rce.sequoiaproject.org/rce/faqs/>



# RCE Resource Library

TEFCA is a multifaceted, living framework that enables seamless and secure nationwide exchange of health information.

GETTING STARTED



Below is a guide to the Common Agreement, Standard Operating Procedures (SOPs), technical documents, and other resources that make up TEFCA's rules of the road. Start your journey to next generation interoperability here.

<https://rce.sequoiaproject.org/tefca-and-rce-resources/>

Additional Resources:

<https://www.healthit.gov/tefca>

All Events Registration and Recordings:

<https://rce.sequoiaproject.org/community-engagement/>

## Upcoming RCE Monthly Info Calls:

October 15, 12:00pm ET (60 minutes)

November 19, 12:00pm ET (



# Questions & Answers

For more information:  
[rce.sequoiaproject.org](http://rce.sequoiaproject.org)