DxF Stakeholder Advisory Committee Meeting #2 Pre-Read

This document includes background information to support preparation for the following agenda items at DxF Stakeholder Advisory Committee Meeting #2:

- Item #3: DxF Program Updates and Purchaser Contracting Requirement Overview
- Item #4: Fast Healthcare Interoperability Resources (FHIR) Roadmap: Technical Standards Advancement
- Item #5: Qualified Health Information Organization (QHIO) Program
- Item #6: QHIO Program Issues Impacting Event Notification

ITEM #3: DXF PROGRAM UPDATES AND PURCHASER CONTRACTING REQUIREMENT OVERVIEW

Background

California Senate Bill 660 (2026) requires specified Participants to execute the DxF as a condition of contracting with the California Public Employees' Retirement System (CalPERS), Covered California, and California Department of Health Care Services (DHCS). Below is additional information and publicly available excerpts of the data exchange requirements included in existing purchaser contracts. For additional information on the contracting requirements, see the Overview of DxF Accountability Measures.

California Public Employees' Retirement System (CalPERS)[1]

CalPERS' contractual agreements with insurance carriers (Contractors) require them to work with CalPERS to comply with all aspects of the California Health and Safety Code 130290, which established the California Health and Human Services Agency's Data Exchange Framework (DxF). This includes working with the Contractors' Participating Providers to facilitate or incentivize their collection and use of required data, as well as working with and supporting their Participating Providers to ensure readiness to participate in the California Health and Human Services Agency's DxF.

Covered California[2]

"Contractor must…

1. Execute the Data Sharing Agreement (DSA) as required by Health and Safety Code section 130290.
2. Participate in at least one Qualified Health Information Organization (QHIO), that will share data to support quality measurement and operations purposes and report on its use of that QHIO's services and functions to support the following activities:

[1] This language was shared directly with HCAI. CalPERS does not publish their CalPERS Health Benefits Program contract language.

[2] 2026-2028 Individual Market QHP Issuer Contract – Attachment 1; 5.02.3 Data Exchange; page 54-55.

a. Contractor's DSA obligations set forth in the DxF Policies and Procedures (P&Ps), including sharing data that Contractor is required to provide access to or exchange under the Data Elements to Be Exchanged P&P.
b. Request, receive, and use information from providers, hospitals, and other DxF Participants as needed by Contractor to support population health management, clinical care, and coordination initiatives for its Covered California Enrollees. These include the Quality Transformation Initiative, Healthcare Evidence Initiative, and Quality Rating System.
c. Enhance demographic and social risk factor data capture to improve health equity and access.
d. Monitor network hospitals' compliance with the requirement under the Technical Requirements for Exchange P&P.

3. Send Notification of Admit, Discharge, and Transfer (ADT) Events when requested by a DxF Participant for Covered California Enrollees. As requested by Covered California, Contractor must report:
    a. A list of network hospitals by region, including psychiatric hospitals and critical access hospitals, that have not sent requested Notification of ADT Events to at least one QHIO.
    b. For the above list, a description of whether and how these hospitals are sending Notification of ADT Events using methods that are acceptable to all requesting DxF Participants, as required by the Technical Requirements for Exchange P&P. "
4. Unless prohibited by law, share information on Covered California Enrollees with primary care practices using standard file formats for assigned and selected members monthly. This benefits the primary care practices by supporting improvement on their quality measure performance, identifying and managing key populations to improve specific outcomes, and supporting partnership between practices and Qualified Health Plan (QHP) Issuers on high risk and high cost populations.
    a. Data types to share include: Member enrollment/eligibility file, medical claims, behavioral health claims, pharmacy claims (no cost included in claims file), ADT feeds when available, and member assessment and care management data collected by the plan."

California Department of Health Care Services (DHCS)[3]

- "Contractor must… comply with all data sharing agreements, including data exchange policies and procedures, as defined by the California Health and Human Services Data Exchange Framework in accordance with Health & Safety Code (H&S) section 130290."
- "Network Provider must execute the California Health and Human Services Data Exchange Framework data sharing agreement pursuant to H&S section 130290."
- "Subcontractors and Downstream Subcontractors must execute the California Health and Human Services Data Exchange Framework data sharing agreement, if applicable, pursuant to H&S section 130290."
- "Contractor must…facilitate exchange of necessary Member Information in accordance with any and all State and federal privacy laws and regulations, including data exchange policies and procedures, as defined by the California Health and Human Services Data Exchange Framework in accordance with H&S section 130290"
- "Contractor must… Require all of its contracted hospitals, and all skilled nursing facilities (SNFs) with electronic health records, to send Admission, Discharge, and Transfer (ADT) notifications to Contractor for each of its assigned Members in accordance with Interoperability and Patient Access Final Rule set forth at CMS-9115-F, and in accordance with the California Health and Human Services Data Exchange Framework set forth in H&S section 130290, and as further specified in the Population Health Management (PHM) Policy Guide"
- "Contractor must use defined federal and State standards, specifications, code sets, and terminologies when sharing physical, behavioral, social, and administrative data with Enhanced Care Management (ECM) Providers and with DHCS in compliance with data exchange policies and procedures, as defined by the California Health and Human Services Data Exchange Framework, in accordance with H&S section 130290."
- "Contractor must use defined federal and State standards, specifications, code sets, and terminologies when sharing physical, behavioral, social, and administrative data with Community Supports Providers and with DHCS in compliance with data exchange policies and procedures, as defined by the California Health and Human Services Data

[3] Medi-Cal Managed Care Boilerplate Contract

Exchange Framework in accordance with H&S section 130290, when sharing physical, behavioral, social, and administrative data with Community Supports Providers and with DHCS."

- "Contractor must participate in the California Health and Human Services Data Exchange Framework to exchange health information or provide access to health information to and from various entities in real time as set forth in H&S section 130290."

ITEM #4: TECHNICAL STANDARDS ADVANCEMENT: FHIR ROADMAP

Overview of the Technical Standards Advancement Process

Background

The Technical Requirements for Exchange Policy and Procedure (P&P) requires DxF to create and conduct an annual process to review and consider new and maturing technical standards for adoption in the DxF beginning in July 2024. The P&P is intended to align with the Office of the National Coordinator for Health IT's (ONC) annual Standards Version Advancement Process (SVAP). Section II.6. of the Technical Requirements for Exchange Policy and Procedure states:

> 6. T*echnology Updates. The Governance Entity must create an open and transparent process to review and consider new and maturing National and Federally Adopted Standards for potential inclusion in the Data Exchange Framework.*
>
> a. *The process must be put in place no later than July 1, 2024.*
>
> b. *The process must consider both data content standards and data exchange standards to be adopted as amendments to the Data Elements to Be Exchanged Policy and Procedure and to this policy, respectively.*
>
> c. *The process must establish a regular review cadence, no less than annually.*

California Health and Human Services' (CalHHS) Center for Data Insights and Innovation (CDII) convened a Technical Advisory Subcommittee (TASC) in March 2024 and held a short series of public meetings in which technical and operational experts discussed and recommended a process to advance technical standards for the DxF based on industry best practices. CDII brought the recommendation to the Implementation Advisory Committee (IAC) in May 2024 for review, comment, and further recommendations. CDII then published the Technical Standards Advancement process considering the recommendations of the TASC and IAC in July 2024.

The TASC recommended, and IAC and CDII adopted, a set of principles to consider in advancing technical standards:

1. DxF requirements for exchanging information and technical standards for exchange must comply with applicable state and federal law.
2. DxF technical standards advancement process must be open and transparent, providing opportunities for public input and public visibility into recommendations.
3. DxF should strive to avoid conflict with federal standards to reduce Participant burden and leverage requirements set by the federal government on vendors.
4. DxF should consider, but not be limited to, federal standards adoption timelines when establishing timing and method of advancing DxF standards.
5. DxF technical standards must address the exchange of health and social services data as established in applicable state and federal law.
6. DxF technical standards should continue to advance exchange in key areas identified by the IAC that impact health.

Technical Standards Advancement Process[4]

Technical Standards Advancement begins in the second quarter of each calendar year to align with the annual update of the SVAP conducted by ONC. While ONC has no set timeline for updating SVAP, it is usually updated in mid-to late summer.

Before the annual update of the SVAP by ONC:

1. HCAI solicits input from stakeholders, including the Advisory Committee, in quarter two of each year to establish priority areas in which standards advancement should be considered.
2. HCAI determines whether to conduct the Technical Standards Advancement process in that calendar year, considering priorities, stakeholder input, and other DxF activities.
3. If conducting the process in the calendar year, HCAI establishes (or reestablishes) a Standards Workgroup,[5] considering priority areas of advancement and membership from prior years.

[4] Technical Standards Advancement Process (developed by CalHHS CDII in June 2024)

[5] The Standards Workgroup was previously called the "Standards Committee" and may appear by that name in historical DxF documents and presentations.

If HCAI convenes the Standards Workgroup, it reviews new and maturing technical standards, considering areas prioritized by HCAI based on stakeholder input. Following update of the SVAP by ONC:

4. HCAI convenes the Standards Workgroup, usually in quarter three, and charges it to consider technical standards advancement in identified priority areas.

5. The Standards Workgroup discusses new and emerging standards considering the most recent content of ONC's SVAP, ONC's Interoperability Standards Advisory (ISA), the Trusted Exchange Framework and Common Agreement (TEFCA) Qualified Health Information Network (QHIN) Technical Framework (QTF), and other federal and industry advancements and adoption over the course of several open meetings.

6. The Standards Subcommittee provides recommendations for technical standards advancement to HCAI, usually in quarter four.

HCAI may then advance recommendations of the Standards Workgroup as amendments to the Data Elements to Be Exchange P&P, the Technical Requirements for Exchange P&P, and other P&Ps as appropriate, following the process established in the Development of and Modifications to Policies and Procedures P&P:

7. HCAI drafts proposed modifications to appropriate P&Ps, usually in quarter one of the following year, considering recommendations of the Standards Workgroup.

8. HCAI conducts discussions with stakeholders, including the Advisory Committee, on recommendations and proposed modifications to Policies and Procedures, usually in quarters one and two.

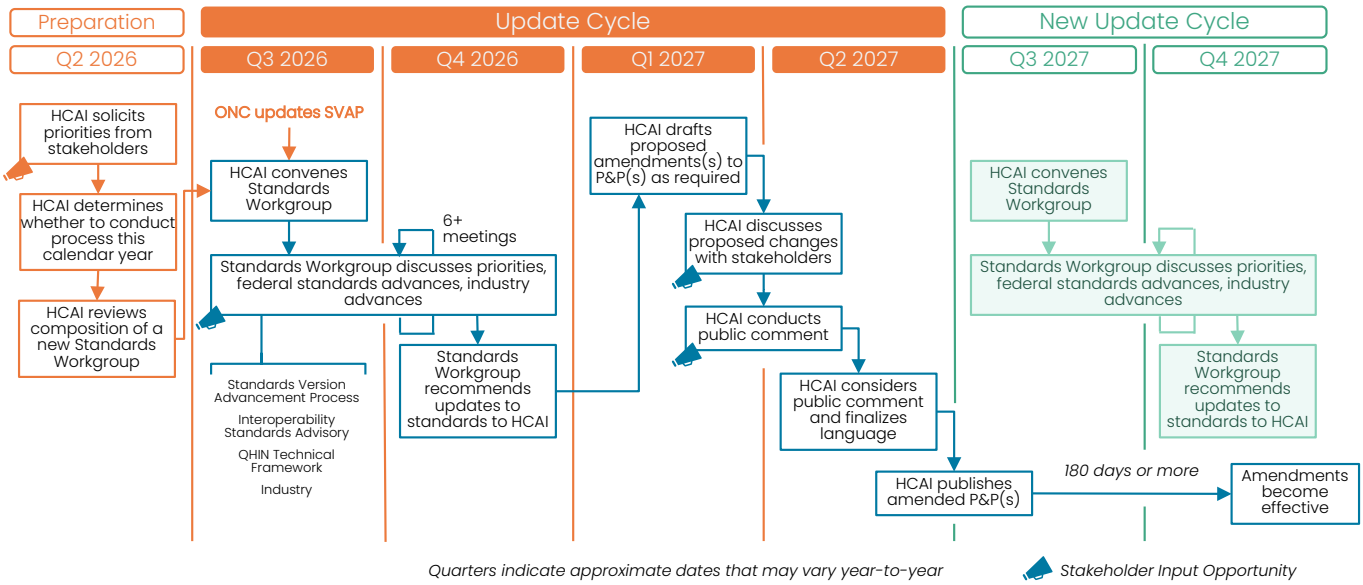
9. HCAI solicits public comment on proposed modifications following the procedures required by the Development of and Modifications to Policies and Procedures P&P, usually in quarters one and two.

10. HCAI revises proposed modifications in response to public comment and publishes amended P&P(s), usually late in quarter two or early quarter three.

11. Amendments become effective 180 or more days after publication as required by the Development of and Modifications to Policies and Procedures P&P.

HCAI may allow for more time than the minimum 180 days for adoption of new standards if the Standards Workgroup, stakeholders in public comment, and/or the Advisory Committee recommend that more time is required to implement and adopt new requirements.

The following diagram summarizes the Technical Standards Advancement process.



Prior Activities

CDII convened the 2024 Standards Committee at the recommendation of the TASC, stakeholders, and the IAC to consider advancement of the United States Core Data for Interoperability (USCDI) and technical standards for Event Notification. On the recommendation of the Standards Committee, IAC, and considering public comment, CDII amended the following Policies and Procedures:

1. The Data Elements to Be Exchanged P&P was amended to advance the version of USCDI required of all Participants from USCDI version 2 to the version and effective date established within the ASTP/ONC Health IT Certification Program. This amendment became effective January 1, 2026, when ONC advanced the requirements of the Health IT Certification Program to USCDI version 3.

2. The Technical Requirement for Exchange P&P was amended to establish content and format standards for Event Notification using HL7 version 2 Admit, Discharge, and Transfer (ADT) messages and content standards for requests for Event Notification using Rosters or other means. This amendment becomes effective August 1, 2026.

Given the advancements in USCDI and new standards for Event Notification, and aligned with the recommendation of the IAC, CDII did not convene a Standards Committee in 2025.

Roadmap for FHIR Adoption

Fast Healthcare Interoperability Resources (FHIR)

The Stakeholder Advisory Committee prioritized the FHIR roadmap as a top discretionary item for the DxF to focus on during the first Stakeholder Advisory Committee Meeting in April 2026.

ASHL7, the standards development body that develops and maintains FHIR, describes FHIR in their executive summary as follows:

> FHIR® – Fast Healthcare Interoperability Resources (hl7.org/fhir) – is a next generation standards framework created by HL7. FHIR combines the best features of HL7's v2, HL7 v3 and CDA product lines while leveraging the latest web standards and applying a tight focus on implementation.
>
> FHIR offers many improvements over existing standards:
>
> - A strong focus on implementation: fast and easy to implement (multiple developers have had simple interfaces working in a single day)
> - Multiple implementation libraries, many examples available to kick-start development
> - Specification is free for use with no restrictions
> - Interoperability out-of-the-box: base resources can be used as is, but can also be adapted as needed - which happens a lot - for local requirements using Profiles, Extensions, Terminologies and more
> - Evolutionary development path from HL7 Version 2 and CDA: standards can co-exist and leverage each other
> - Strong foundation in Web standards: XML, JSON, HTTP, OAuth, etc.
> - Support for RESTful architectures, seamless exchange of information using messages or documents, and service-based architectures
> - Concise and easily understood specifications
> - A human-readable serialization format for ease of use by developers
> - Ontology-based analysis with formal mapping for correctness (under development)

You can find the most recent information on FHIR on HL7's FHIR website.

The following provides some background for the Advisory Committee when considering priorities that DxF might establish in a Roadmap for FHIR Adoption.

Federal Requirements

The Office of the National Coordinator for Health IT (ONC) Health IT Certification Program 45 CFR 170.315(g)(10) requires certified health IT to:

- Accept and respond to requests for patient information using FHIR Release 4.0.1 and the US Core Standard for Trial Use (STU) 6.1.0 implementation guide, which describes how to use FHIR in compliance with the requirements of USCDI version 6[6]
- Secure connections using the SMART Application Launch Framework Implementation Guide Release 1.0.0, which describes the security model to authorize access to protected health information (PHI) using FHIR

While the certification program requires health IT, including electronic health records (EHRs), to make FHIR available, there are no current regulatory requirements that health care **providers** implement support for FHIR or use FHIR in exchange with other organizations.

The Centers for Medicare & Medicaid Services (CMS) 2020 CMS Interoperability and Patient Access Final Rule (CMS-9115-F) requires impacted **payers**[7] to:

- Provide patients with access to their claims, encounters and clinical data using FHIR standards specified by ONC in 45 CFR 170.215, which includes FHIR Release 4.0.1, US Core STU 6.1.0, and SMART Application Launch Framework Release 1.0.0 referenced in the ONC Health IT Certification Program

CMS aligns its requirements for use of FHIR with those specified by ONC.

The requirement for impacted payers included in this rule is referenced by Health and Safety Code (HSC) § 130290(a)(4)(B) when defining health information for health insurers and health care service plans. However, HSC § 130290 does not require the use of FHIR in this definition.

The California Department of Health Care Services (DHCS) is an impacted payer and is required to implement FHIR to provide Medi-Cal members with access to their claims, encounters, and clinical information. DHCS is extending its use of FHIR to the CalAIM

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6 Note that the ONC Health IT Certification Program only requires certified health IT to implement USCDI version 3.

7 Impacted payers include Medicare Advantage (MA) organizations, state Medicaid and Children's Health Insurance Program (CHIP) fee-for-service (FFS) programs, Medicaid and CHIP managed care organizations (MCOs), and qualified health plan (QHP) issuers on the Federally-facilitated Exchange (FFE).

Authorization to Share Confidential Member Information (ASCMI) Initiative to collect and share electronic consent.

2024 CMS Interoperability and Prior Authorization Final Rule (CMS-0057-F) advances the requirements to use FHIR beyond patient access, and requires impacted payers to:

- Exchange claims, encounters and clinical data with providers and other plans using the same FHIR standards specified by ONC in 45 CFR 170.215 for patient access
- Implement and maintain a prior authorization FHIR API with its list of covered items and services, documentation for requirements for prior authorization approval, and support for prior authorization requests and responses

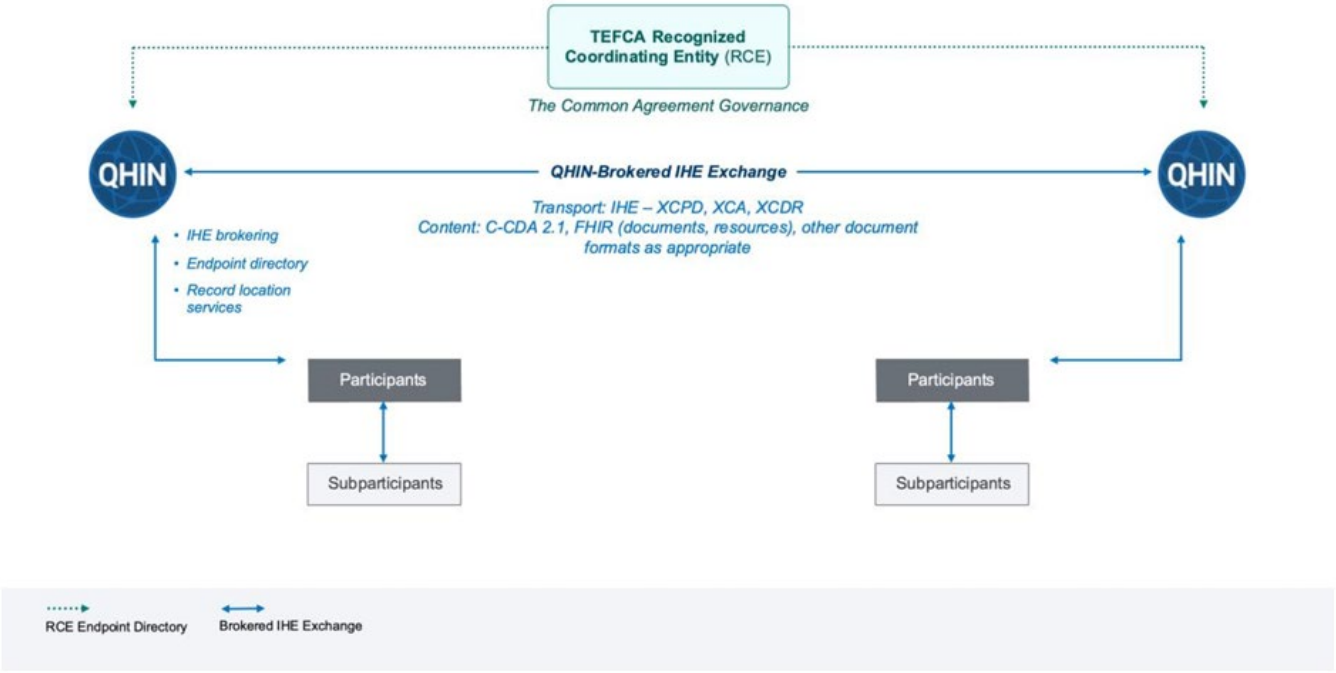
This CMS rule applies only to impacted payers and does not include a requirement for health care providers to use FHIR to exchange data with plans or use the prior authorization API. DHCS is impacted by this rule, and is promoting the use of FHIR beyond impacted payers to facilitate exchange of claims, encounters, clinical data, and prior authorization.

2026 CMS Interoperability Standards and Prior Authorization for Drugs Proposed Rule communicates CMS' intent to allow covered entities to use the FHIR-based prior authorization API as a replacement for X12 278 standard required by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) if/when the rule is finalized.

TEFCA Roadmap

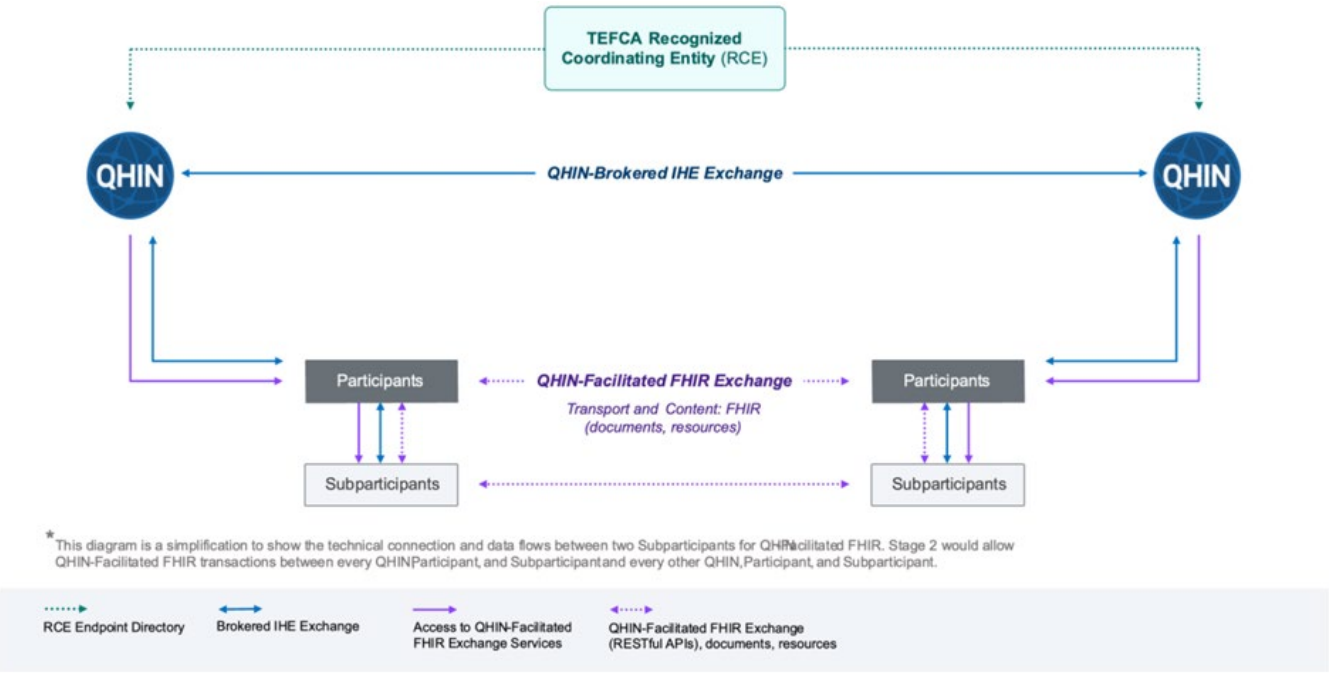
The FHIR Roadmap for TEFCA Exchange version 2.0, published in 2023, calls out four phases of FHIR implementation for TEFCA.

Stage 1: FHIR Content Support is available now. It allows QHIN-to-QHIN exchange of FHIR data payloads using the more traditional standards and profiles required by the QTF and also used by other nationwide networks and frameworks, rather than limiting content to HL7's Clinical Data Architecture (CDA) documents.[8]



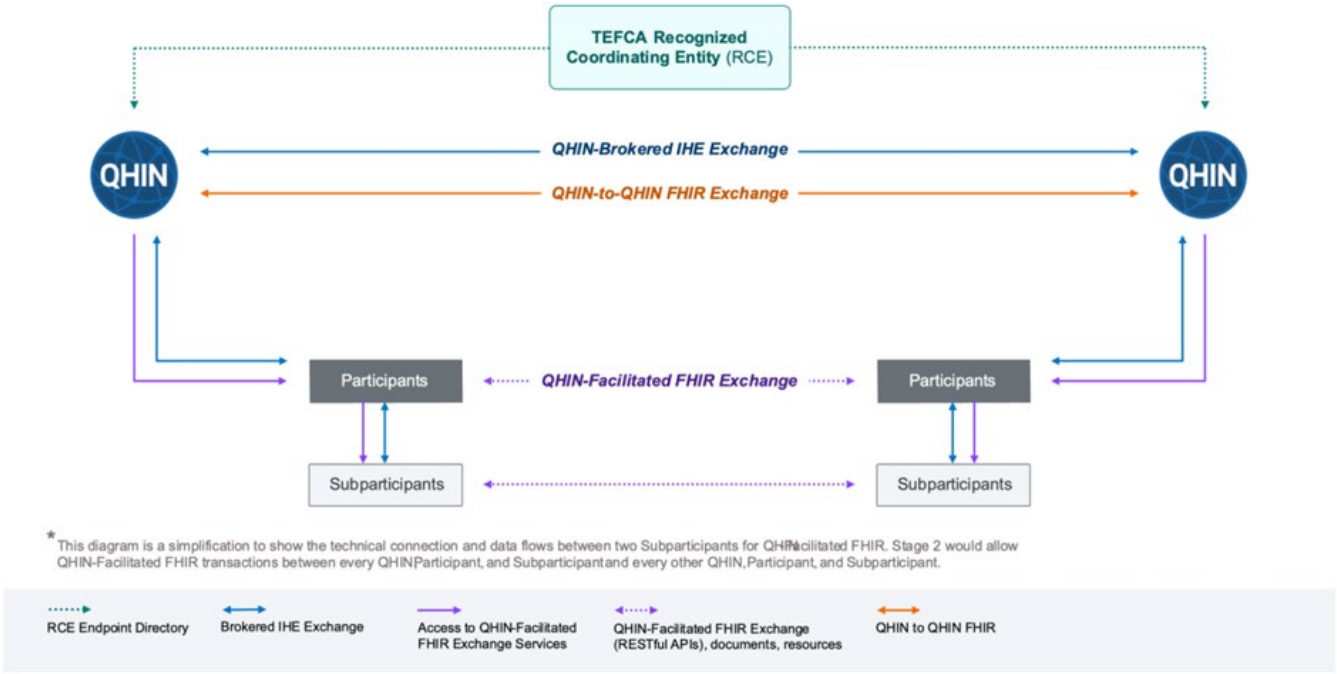
[8] The Sequoia Project, FHIR Roadmap for TEFCA Exchange, page 7-8

Stage 2: QHIN-Facilitated FHIR Exchange enables TEFCA participants (the organizations served by QHINs) to exchange data between each other using FHIR APIs, facilitated by QHINs that may provide endpoint directories, record locator services, and/or a digital certificate infrastructure to facilitate exchange. Stage 2 may also set standards for uniform contracting between QHINs and participants, and establish rules-of-the-road for use of FHIR between participants. Stage 2 does not require QHINs to exchange data using FHIR and data that is exchanged by TEFCA participants using FHIR does not pass QHINs.[9]



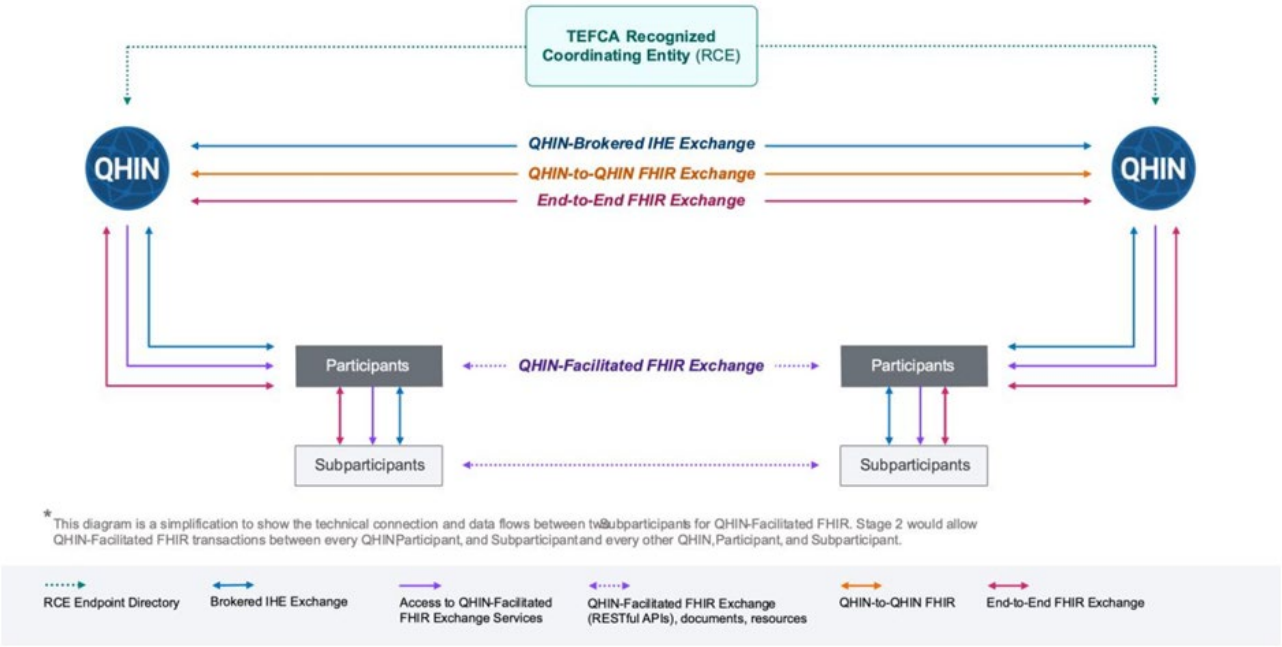
[9] The Sequoia Project, FHIR Roadmap for TEFCA Exchange, page 8-9

Stage 3: QHIN-to-QHIN FHIR Exchange begins QHIN-to-QHIN exchange using the traditional standards and profiles currently included in the QTF or FHIR APIs, while maintaining support for QHIN-Facilitated FHIR Exchange between TEFCA participants. In this phase, TEFCA participants may exchange data using FHIR with other participants directly, without using a QHIN. It does not include participants using FHIR to exchange data with other participants through the QHIN network.[10]



[10] The Sequoia Project, FHIR Roadmap for TEFCA Exchange, page 10

Stage 4: End-to-End FHIR Exchange allows TEFCA participants to begin exchanging data using FHIR APIs through QHINs. While peer-to-peer exchange using FHIR between TEFCA participants and traditional standards and profiles used by other nationwide networks and frameworks are still part of Stage 4, this phase represents true exchange with all entities using FHIR end to end.[11]

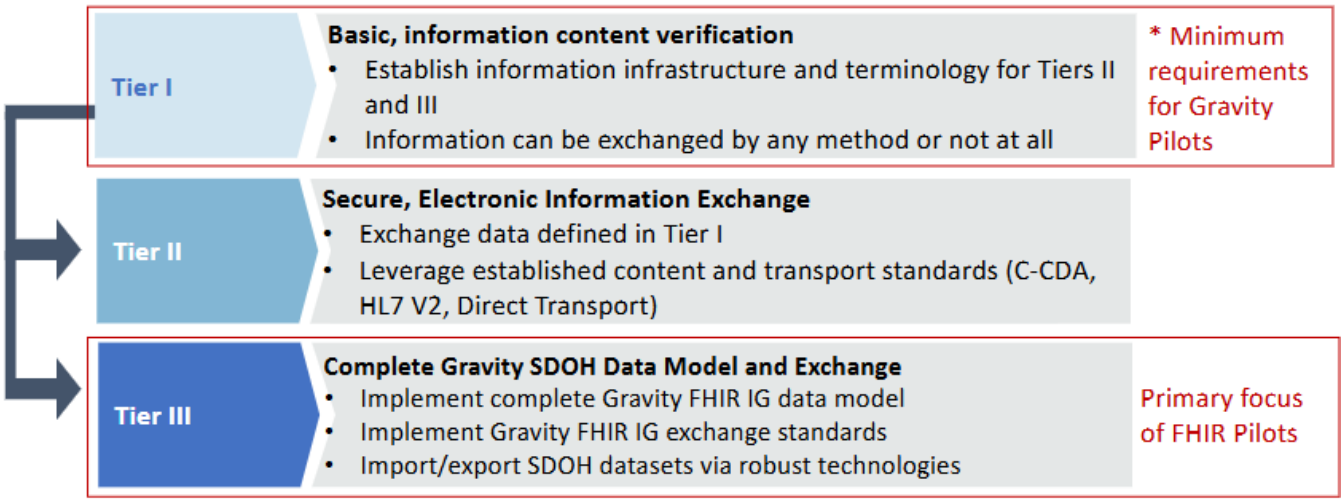


The FHIR Roadmap describes the following timeline for Stages 1 through 4. Progress toward Stage 2 and Stage 3 are not known, but the QTF does not yet include requirements for QHINs to implement some of the advancements found on the FHIR Roadmap.[12]

[11] The Sequoia Project, FHIR Roadmap for TEFCA Exchange, page 11
[12] The Sequoia Project, FHIR Roadmap for TEFCA Exchange, page 7

Gravity Tiered Pilot Model

The Gravity Project (an HL7 FHIR Accelerator) is promoting social determinants of health (SDOH) data standards for health and social care data exchange using a Three-Tiered Pilot Approach to FHIR adoption.[13]



Tier I: Basic – Information content verification establishes use of data elements and terminologies used in FHIR standards in their internal data representations.

Tier II: Secure – Electronic information exchange begins electronic exchange using the data elements and terminologies established in Tier 1. Entities are not required to use FHIR APIs, but instead may use any standard they wish and may already have implemented.

Tier III: Complete Gravity SDOH Data Model and Exchange begins exchange using FHIR APIs conforming to Gravity FHIR implementation guides.

The Gravity Project does not establish a timeline for the Three-Tiered Pilot Approach, but instead encourages organizations and initiatives to establish their own timeline for progressing through the tiers.

[13] HL7 International Gravity Project, Implementation Execution Materials, slide 1

ITEM #5: QUALIFIED HEALTH INFORMATION ORGANIZATION (QHIO) PROGRAM

QHIO Program Overview

A Qualified Health Information Organization (QHIO) is an intermediary designated by HCAI that meets the DxF's requirements for secure data exchange and other criteria established by the QHIO Program. The QHIO Program has two goals:

1. Offer all DxF Participants services to help them meet their data sharing obligations under the DxF
2. Support statewide exchange of health and social services information (HSSI)

The QHIOs were identified and qualified through a public application released in August 2023. Given the absence of funding to establish the program or infrastructure such as a test harness QHIOs could use to verify capabilities, the QHIO application relied heavily on attestations. To achieve and maintain qualified status, each QHIO was expected to meet (and continue to meet) the requirements it attested to in their application. Nine QHIOs were announced in October 2023, signaling the launch of the QHIO Program. The QHIO Program Requirements may be found in the Appendix.

Overview of DxF Exchange Transactions

QHIOs are available to assist DxF Participants with statewide exchange of HSSI. As defined by the DSA and its P&Ps, this exchange includes three transaction types:

Request for Information. Request for Information is a transaction type where one Participant requests HSSI regarding a specific individual from another Participant. It may also be referred to as a query. This transaction may require two steps: 1) determine if the Participant holds information on the specified individual, and 2) request information on that individual. These transactions are accomplished using Integrating the Healthcare Enterprise (IHE) technical standards. This is a popular transaction type and standard, also used by national networks.

Information Delivery. In Information Delivery, one Participant wishes to send an individual's information to another Participant. It might also be referred to as a "push" transaction. These transactions may utilize one of several standards including IHE, Direct Secure Messaging (DSM) and FHIR.

Event Notification. Coordination of health and social services is most effective when the parties serving the individual are alerted to an unanticipated event. For instance, if a primary care provider is alerted when their patient is discharged from an acute care setting, the provider can engage to ensure a smooth transition to home, minimizing the risk or readmission.

DxF has established event notification services to support this type of alerting. To be successful, these services involve several coordinated components:

1) recipients identify the individuals for whom they want to be notified;

2) sources share events in real-time;

3) source (or designee) match events to the individuals identified; and

4) the source (or designee) sends the matched event to the recipient.

When these services are well-coordinated, providers can promptly engage to improve service delivery and outcomes.

ITEM #6: QHIO PROGRAM ISSUES IMPACTING EVENT NOTIFICATION

Event Notification

Event Notification is a core capability of the DxF that enables timely alerts when Individuals experience key healthcare events. Event Notifications are intended to support care coordination, improve transitions of care, and ensure that relevant providers, health plans, and care managers are informed of events impacting an Individual's health in real time.

The goal of Event Notification on the DxF is to enable a statewide system that delivers timely notification of health events to authorized DxF Participants to improve care coordination and whole person care.

Event Notification is not supported by TEFCA or any of the nationwide networks or frameworks.

Overview of the Event Notification Process[14]

The Technical Requirements for Exchange P&P describes requirements for Event Notification under the DxF. Version 1.1 of the P&P becomes effective August 1, 2026, and the requirements of the Technical Requirements for Exchange P&P are described here. See later in this document for an excerpt from the P&P for full details on the requirements for Event Notification.

Hospitals and Emergency Departments (EDs) are required, and Skilled Nursing Facilities (SNFs) are encouraged, to send Event Notifications for Admissions (which include registration) and Discharges. Event Notifications must be available to a requesting Participant as HL7 version 2 Admit, Discharge, Transfer (ADT) messages, and must include:

- The date and time the Event Notification was sent
- The name of the organization sending the Event Notification
- The date and time of the Admission or Discharge
- Whether the Event Notification is for an Admission or Discharge
- The name of the source and National Provider Identifier (NPI) for the source (if it has one) at which the Admission or Discharge took place
- Person attributes and identifiers for the Individual that was Admitted or Discharged
- The type of Admission and reason for Admissions, if known
- The health professional associated with the Admission (such as the admitting physician) or Discharge (such as the discharge coordinator), if known

[14] Capitalized terms in this section have the same meaning as in the Glossary of Defined Terms.

- The discharge diagnosis code(s) and description(s) at Discharge, if known
- The discharge disposition at Discharge, if known

Formats other than an HL7 message may be used if acceptable to both parties.

Organizations are encouraged to send only the information required for an Event Notification in the P&P, allowing the Participant receiving the Event Notification to determine whether additional information and follow-up is needed. The Participant can then use Request for Information to obtain additional information, such as a discharge summary following an Event Notification for a Discharge.

DxF Participants must request Event Notifications in order to receive them. Hospitals, EDs, and SNFs must accept Rosters (a list of Individuals for whom Event Notification is requested by a Participant), but may use other methods acceptable to both parties. Requests must include:

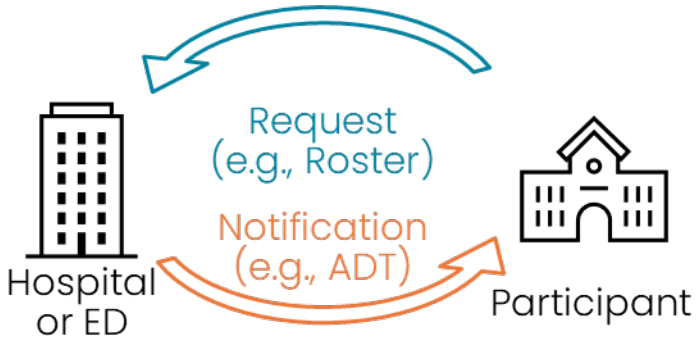
- Person attributes and identifiers for the Individuals for whom Event Notifications are requested
- The Required Purpose for which the Participant is requesting Event Notification for each Individual included in the request
- The name of the Participant organization requesting Event Notifications for each Individual included in the request

Any authorized DxF Participant may request Event Notifications for a Required Purpose.

There are three different patterns for facilitating Event Notification under the DxF.

Pattern 1: Not using a QHIO

In this pattern, DxF Participants send their requests for Event Notification directly to Hospitals, EDs, and SNFs, and Hospitals, EDs, and SNFs use their own technology (e.g., their EHR or a non-QHIO vendor) to send Event Notifications directly to requesting DxF Participants.

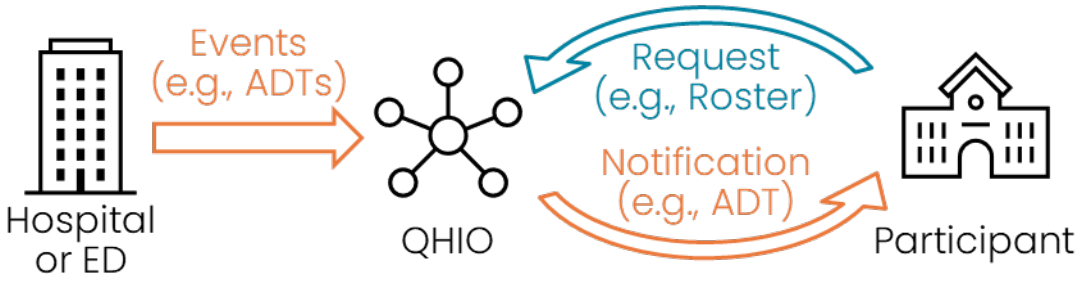


Event Notification is initiated by the DxF Participant by making a request (e.g., sending a Roster) to the Hospital(s), ED(s), and SNF(s) from which Event Notifications are desired. Requests are usually updated periodically, perhaps monthly, and may expire if not updated. When an Individual is Admitted or Discharged, the Hospital, ED, or SNF matches the Admission or Discharge to an Individual in the requests for Event Notifications received from all Participants. If a match is identified, the Hospital, ED, or SNF sends a notification directly to each Participant that made the request in real time using a secure transmission method.

This approach requires a direct, point-to-point connection, where each connection must be individually established and managed by the participating organizations.

Pattern 2: Using a single QHIO

In this pattern, Hospitals, EDs, and SNFs sending Event Notifications and DxF Participants requesting Event Notifications have chosen to use the same QHIO to facilitate that exchange. This pattern may be most common regionally, where a QHIO supports a specific geography and Participants are interested in receiving Event Notifications from Hospitals, EDs, and SNFs within that same region.



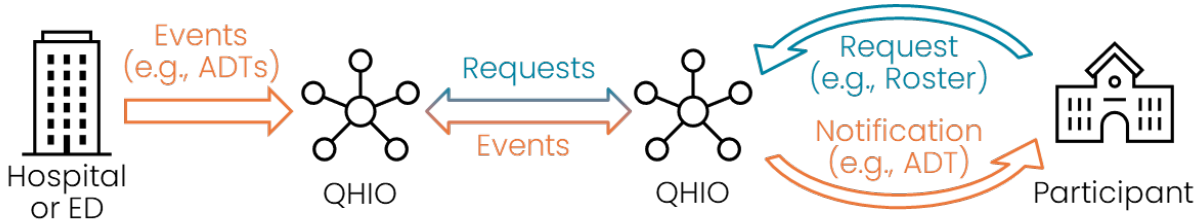
As in Pattern 1, Event Notification is initiated by the DxF Participant sending a request, but this time to the QHIO facilitating Event Notification. Hospitals, EDs, and SNFs send Admissions and Discharges to the QHIO, most often as a real-time feed of HL7 ADT messages. When a message is received, the QHIO matches the Admission or Discharge to an Individual in the requests for Event Notifications received from all Participants. If a match is identified, the QHIO sends a notification to the Participant in real time using a secure transmission method aligned with each Participant's workflow. The QHIO acts as a centralized Intermediary, performing Person Matching by comparing incoming Admissions and Discharges to received requests and then delivering Event Notifications to the appropriate Participants when a match is found.

Some QHIOs offer formats other than HL7 ADT messages for receiving Event Notifications, such as flat files, Direct secure messages, or notifications in a portal. QHIOs may also offer options such as real-time or daily delivery of Event Notifications.

This approach only requires that Hospitals, EDs, SNFs, and Participants make a single connection to their QHIO to receive Event Notifications from all of the connected partners. Hospitals, EDs, and SNFs send all Admissions and Discharges to the QHIO, and the QHIO takes responsibility for matching them to requests. Use of a QHIO lowers the burden for all participating parties.

Pattern 3: Using multiple QHIOs with QHIO-to-QHIO communication

In this pattern, Hospitals, EDs, and SNFs have chosen to use different QHIOs, requiring coordination across QHIOs. This pattern enables use of any QHIO by any Participant to enable statewide Event Notification.



As in Pattern 2, Event Notification is initiated by the DxF Participant sending a request to their chosen QHIO. And as in Pattern 2, Hospitals, EDs, and SNFs send a feed of Admissions and Discharges to their chosen QHIO. However, the QHIOs are responsible for exchanging requests, exchanging Admissions and Discharges with other QHIOs, and for matching requests to Admissions and Discharges. Once a match is identified, the QHIO chosen by the requesting Participant delivers the Event Notification to them.

The QHIO Program did not specify the method by which QHIOs would cooperate to exchange Admissions, Discharges, and requests.

This pattern has all of the benefits of Pattern 2, places the highest burden and responsibility on the QHIOs, is the most generalized model anticipated for use within the QHIO Program, enables statewide Event Notification, and will be used as a reference in our discussion of Event Notification at the June meeting. However, members should keep in mind that all three patterns are present within the DxF as we discuss the issues associated with the QHIO Program and their impact on Event Notification.

Technical Requirements for Exchange P&P

The following are excerpts from the Technical Requirements for Exchange P&P version 1.1 that describe the requirements for Event Notification recommended by the 2024 Standards Committee and the IAC in 2025, and published in January 2026 and becoming effective August 1, 2026. An understanding of the technical requirements may be helpful in considering the QHIO Program issues impacting Event Notification and are included here for your reference. Section III of the Technical Requirements for Exchange P&P version 1.1 states:

III. *Policy*

This policy establishes minimum technical requirements for the Access, Exchange, and Use of Health and Social Services Information. To comply with this policy, Participants must Exchange Health and Social Services Information for a Required Purpose between Participant systems in such a way that the receiving Participant's system can Use the Health and Social Services Information without special effort on the part of the user.

This policy shall be effective August 1, 2026.

[Sections II.1 and II.2 describing Request for Information and Information Delivery have been omitted]

6. *Event Notification*

a. *Requesting Participants*

i. *Any Participant may make a request for Event Notifications for a Required Purpose.*

ii. *A Participant that makes a request for Event Notifications must submit a Roster identifying the Individuals for whom the Participant is requesting Event Notifications or use some other method acceptable to both the requesting Participant and sending Participant.*

(a) *A Participant that makes a request for Event Notifications must include in the request person attributes and identifiers for each Individual for whom Event Notifications are*

requested consistent with the person attributes and identifiers established for Person Matching.

(b) *A Participant that makes a request for Event Notifications must be permitted under the Permitted, Required, and Prohibited Purposes Policy and Procedure to make the request and must be permitted under Applicable Law to receive the Event Notifications requested.*

(c) *A Participant that makes a request for Event Notifications, or an Intermediary that submits a request for Event Notifications on behalf of a Participant, must include the following information with or in the request:*

(i) *the Required Purpose, consistent with the Permitted, Required, and Prohibited Purposes Policy and Procedure, for which the Participant is requesting Event Notifications for each Individual included in the request; and*

(ii) *the name of the Participant requesting Event Notifications for each Individual included in the request.*

b. *Sending Participants*

i. *A Participant that is a Hospital or Emergency Department must accept requests for Event Notifications for Admissions and Discharges from any other Participant for a Required Purpose and send Event Notifications for all Admissions and Discharges for Individuals as requested for a Required Purpose.*

ii. *A Participant that is a Skilled Nursing Facility is encouraged to accept requests for Event Notifications for Admissions and Discharges from other Participants and send Event Notifications for Admissions and Discharges for Individuals requested. Skilled Nursing Facilities may be required to accept requests and send Event Notifications in future revisions of this policy.*

iii. *A Participant that is a Hospital or Emergency Department must send Event Notifications for Admissions and Discharges unless prohibited by Applicable Law.*

iv. *A Participant is required to send Event Notifications to a requesting Participant only if requested by the Participant in advance of the Event. This policy does not require that a Participant, or its Intermediary, send Event Notifications for historical Events that took place prior to a request for Event Notifications by the requesting Participant.*

v. *A Participant that sends Event Notifications must use a National and Federally Adopted Standard to communicate the Event Notification and Exchange Health and Social Services Information securely as required by the Privacy Standards and Security Safeguards Policy and Procedure.*

vi. *A Participant that sends Event Notifications is strongly encouraged to include only that information in the Event Notification necessary to make the receiving Participant aware of the Event and enable the receiving Participant to request more information regarding the Event, for example using Request for Information. Notwithstanding, Event Notifications shall include at minimum the required information in subparagraphs II.3.b.viii and II.3.b.ix below.*

vii. *When sending an Event Notification for an Admission or Discharge, the sending Participant must use a HL7 Messaging Standard Version 2.5.1 admit, discharge, and transfer (ADT) message, or later compatible version.*

viii. *When sending an Event Notification for an Admission, the sending Participant must include the following information in the Event Notification:*

(a) *The date and time the Event Notification was sent, which may be different than the date and time of the Admission.*

(b) *The name of the organization sending the Event Notification, which may be an Intermediary sending an Event Notification on behalf of a Participant.*

(c) *The date and time of the Admission.*

(d) *The type of Event, which is an Admission.*

(e) *The name of the facility at which the Admission took place and the National Provider Identifier (NPI) for the facility if the facility has an NPI.*

(f) *All person attributes and identifiers related to health Maintained by the facility for the Individual to which the Admission applies and consistent with the requirements for Person Matching in subparagraph II.4 below.*

(g) *The type of Admission, if known.*

(h) *The reason for the Admission, if known.*

(i) *The health professional associated with the Admission at the time of the Admission, such as the admitting physician, if known, that might be contacted for more information concerning the Admission.*

ix. *When sending an Event Notification for a Discharge, the sending Participant must include the following information in the Event Notification:*

(a) *The date and time the Event Notification was sent, which may be different than the date and time of the Discharge.*

(b) *The name of the organization sending the Event Notification, which may be an Intermediary sending an Event Notification on behalf of a Participant.*

(c) *The date and time of the Discharge.*

(d) *The type of Event, which is a Discharge.*

(e) *The name of the facility at which the Discharge took place and the NPI for the facility if the facility has an NPI.*

(f) *All person attributes and identifiers related to health Maintained by the facility for the Individual to which the Discharge applies and consistent with the requirements for Person Matching in subparagraph II.4 below.*

(g) *The type of Admission to which the Discharge applies, if known.*

(h) *The reason for the Admission to which the Discharge applies, if known.*

(i) *The health professional associated with the Discharge at the time of the Discharge, such as the discharge coordinator, if known, that might be contacted for more information concerning the Discharge.*

(j) *The discharge diagnosis code(s) and description(s) at Discharge, if known.*

(k) *The discharge disposition at Discharge, if known.*

c. *All Participants*

i. *Nothing in this policy limits the responsibility of a Participant to send Event Notifications that are required by Applicable Law.*

APPENDIX

QHIO Program Requirements

The QHIO requirements (released in August 2023) are described below.[15] When applicable, the corresponding 2023 question number has been included in parentheses for reference. Readers should refer to the 2023 QHIO Application for further details on a requirement or the DxF FAQs for clarifications on QHIO requirements.

DSA & Participant Directory Participation

- Maintain an executed DxF Data Sharing Agreement (DSA) and comply with the DSA and its Policies and Procedures (P&Ps). (A.7)
- Maintain participant agreements that do not conflict with the DSA or its P&Ps. (A.8)
- QHIOs who contract with third parties to transmit and/or manage HSSI to share data under the DxF must have valid and enforceable written service agreements that do not conflict with the DSA or its P&Ps. (A.9)
- Complete the Participant Directory and assist HCAI in outreach and education to their clients who may require Participant Directory support.

Collaboration with HCAI and Communication Practices

- Cooperate with HCAI on DxF communications, education, and outreach.
- Cooperate with HCAI and other DxF Participants to support DxF operations. (A.12)
- Promptly inform HCAI and the technical point-of-contact for each QHIO of outages, downtime, or delays in QHIO-to-QHIO connections. For unscheduled outages, include the subsequent outage resolution and measures implemented to prevent future occurrences.
- Report metrics to HCAI on a regular cadence to support measurement of the impact of the DxF, as per reporting requirements provided by HCAI.
- Follow HCAI guidance when communicating qualified status and affiliation with HCAI and the DxF.
- Comply with HCAI's requests for information, compliance reviews, corrective action plans, and other HCAI oversight efforts as found in The Qualified HIO Program section of DxF Resource Library.

Privacy and Security

- Achieve and maintain HITRUST r2 certification (B.1).
- Do not store DxF Participants' Protected Health Information (PHI) or Personally Identifiable Information (PII) outside the Continental United States. (B.2)

[15] QHIO Program Guide, September 2025

- Applicants must not have more than two legally reportable breaches involving 500 or more individuals' data in the last three years. (B.3)
- QHIOs must have, publish, and annually review a Privacy Policy. (B.4)
- Maintain privacy and security policies consistent with the DSA and its P&Ps. (B.5)
- Maintain an audit trail and/or transaction logs for a minimum of six years. (B.6)

Technical Capabilities

- Remain capable of managing individual identities consistent with the Person Matching section of the Technical Requirements for Exchange P&P. (C.1)
- Maintain an active connection to one of the national networks or frameworks identified in the QHIO Application: Carequality, CommonWell Health Alliance, or eHealth Exchange. (C.3)
- Requests for Information (C.4 – C.5)
    - Remain capable of constructing and sending Requests for Information in a manner consistent with DxF P&Ps. (C.4)
    - Remain capable of constructing and sending a response to Requests for Information in a manner consistent with DxF P&Ps. (C.5)
- Information Delivery (C.6)
    - Remain capable of sending and receiving information on behalf of their clients who are DxF Participants in a manner consistent with DxF P&Ps (C.6)
- QHIO-to-QHIO Exchange: Each QHIO is to exchange information for Requests for Information and Information Delivery with other QHIOs and nationwide networks and frameworks on behalf of their own clients who are DxF Participants, as appropriate. (C.7)
- Admit, Discharge, Transfer (ADT) Events: Achieve and subsequently maintain the following capabilities with respect to Notification of ADT Events from California-based Hospitals or Emergency Departments following the prescribed timelines:
    - Receive HL7 Version v2.5.1 ADT messages (or a later, compatible version), as of January 31, 2024. (C.8.a)
    - Receive and maintain a roster of Individuals from DxF Participants who seek to monitor ADT Events for these Individuals no later than April 30, 2024. (C.8.b)
    - Determine whether an incoming ADT Event is associated with a person found on an ADT roster no later than July 31, 2024. (C.8.c)
    - Notify DxF Participants when an ADT Event matches an Individual listed on the Participant's ADT roster no later than July 31, 2024. (C.8.d)
    - Share a roster with other QHIOs, match incoming ADT Events to the Individuals on the roster, and notify the originating QHIO of matched ADT Events no later than July 31, 2024. (C.8.e)

Organization Requirements

- QHIOs must be registered corporations in the United States and/or subject to the laws of the United States and the state(s) in which it operates. (A.1)
- QHIOs must be corporations / organizations of good standing (i.e., have an active license to operate a business and are not restricted by disciplinary actions). (A.3)
- QHIOs must be eligible to conduct business with the State of California (i.e., have not defaulted on or breached a contract with the State of California, have returned overpayments with the State, or reimbursed the State for moneys paid in advance of work not completed). (A.4)
- QHIOs must have current health and/or social services information Exchange business with health and/or social services organizations in California. (A.5)
- • QHIOs must have a governance function that will responsibly serve DxF Participants (i.e., is a 501(c)(3), or has two of: a governing body that convenes once per calendar quarter, a governing body that routinely communicates decisions to stakeholders, or a governing body that allows clients to serve as members). (A.6)
- QHIOs must have sufficient cash or cash equivalents available to support ongoing operations (i.e., their most recent financial statement lists one month or more than one month's operating expenses as cash (or cash equivalents)). (A.10)
- QHIOs and any of their subcontractors engaged in data management activities must each carry insurance with at least $2 million per incident and $5 million per annum coverage to address general liability, errors and omissions, and cyber risks. (A.11)
- Manage QHIO Onboarding Grants if selected as a Grantee's QHIO, including, but not limited to, submitting progress reports, and adhering to milestone timelines. (A.13).