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Understanding Project US@

Kathryn Bingman, VP of Interoperability Adoption
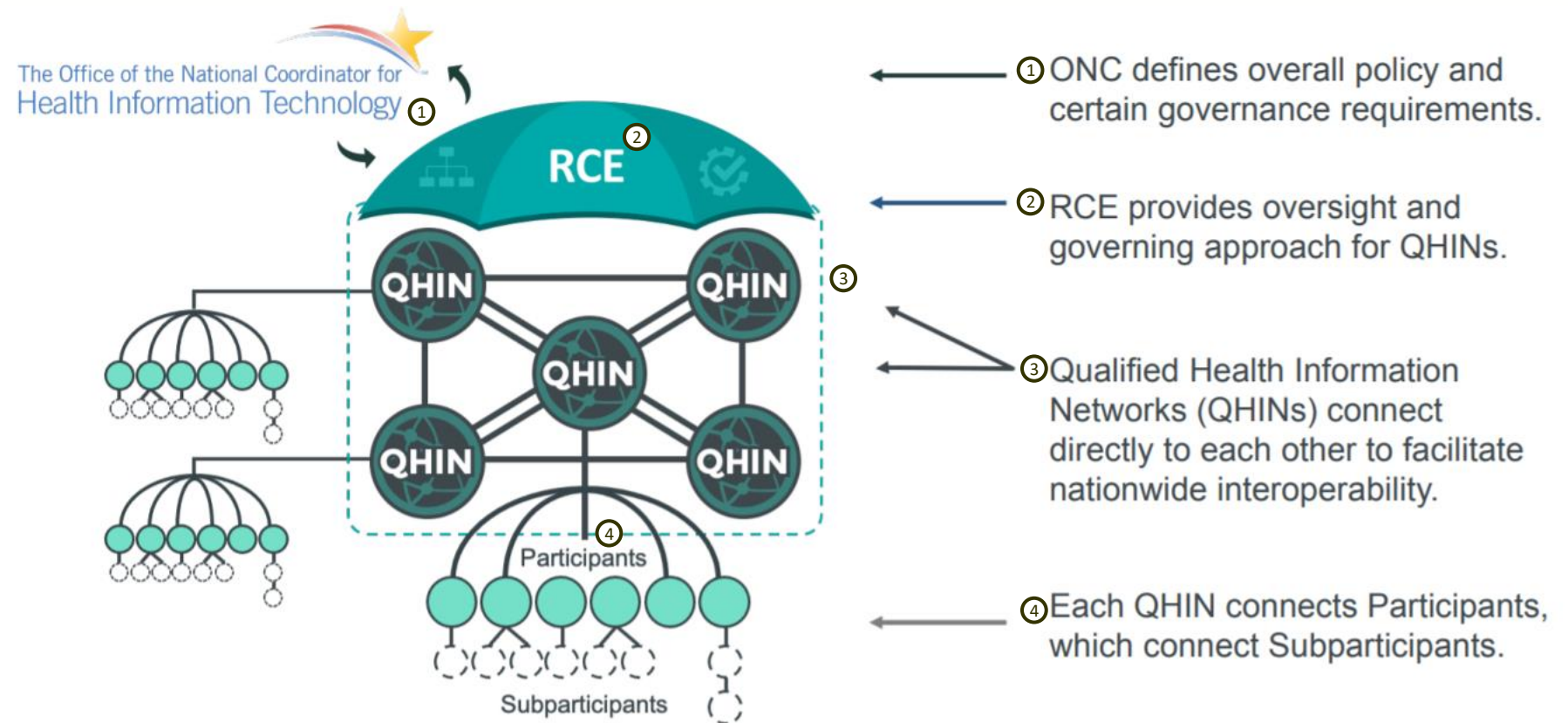*Eric Heflin, Consultant*

Agenda

- TEFCA Overview
- Project US@ Brief Background
- Project US@ Mandatory Processing Rules
- TEFCA Readiness Checklist Interactive Review
- Q&A
- For More Information

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TEFCA Overview

How will TEFCA Work?

Common Agreement

- QHIN Technical Framework
- Standard Operating Procedures

FHIR Roadmap

The Office of the National Coordinator for Health Information Technology

RCE

QHIN QHIN QHIN QHIN QHIN

Participants

Subparticipants

1. ONC defines overall policy and certain governance requirements.
2. RCE provides oversight and governing approach for QHINs.
3. Qualified Health Information Networks (QHINs) connect directly to each other to facilitate nationwide interoperability.
4. Each QHIN connects Participants, which connect Subparticipants.
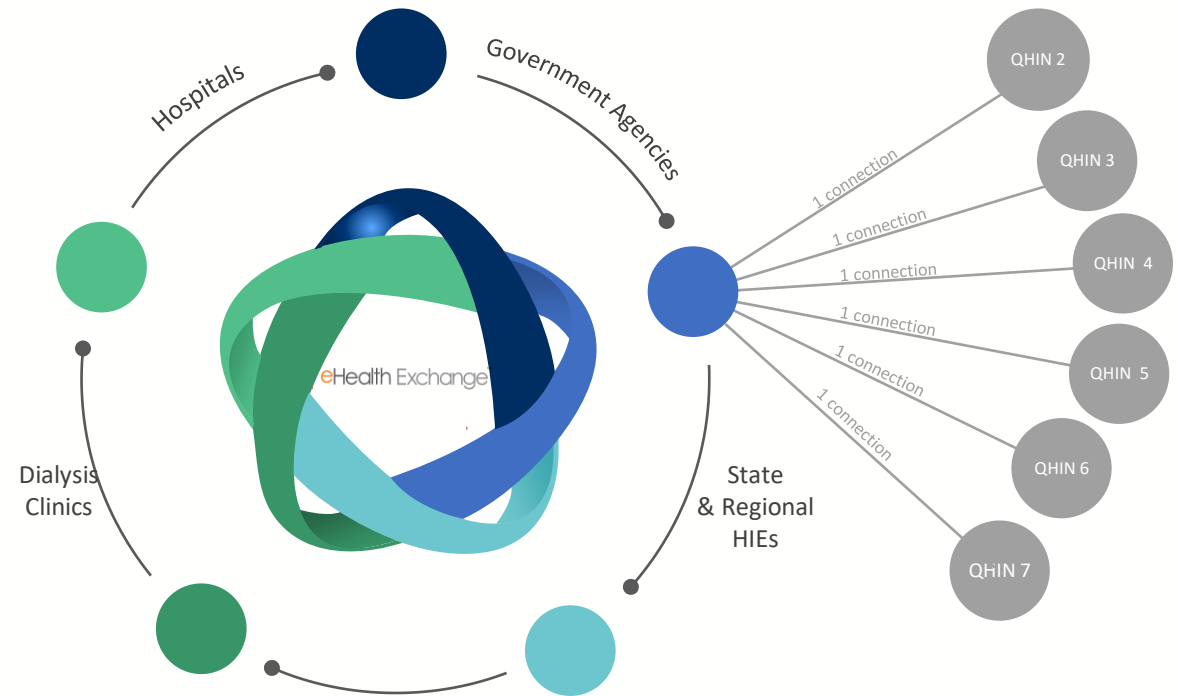
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What is the Trusted Exchange Framework (TEFCA)?

It's a federally endorsed governance framework for **cross-network** exchange of healthcare records.

Similar to Carequality, it's a framework, and <u>not</u> a network:

- Technical & policy agreements
- Governing structure
- Federated architecture

Enables healthcare organizations connected to a TEFCA Qualified Health Information Network (QHIN) to exchange patient data with other healthcare organizations connected to other QHINs.

Which networks exchange via TEFCA?

The HHS announced that the **eHealth Exchange** is one of six applicants that have had their applications to become a Qualified Health Information Network (QHIN) approved

It's not yet clear which healthcare organizations will agree to exchange via TEFCA. Will yours?
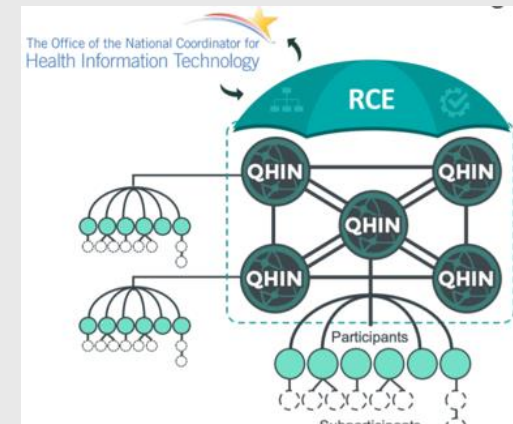
What's changing?

Prior to eHealth Exchange Connecting with TEFCA	Once eHealth Exchange Goes Live on TEFCA
Your organization can exchange with the eHealth Exchange's 320+ health systems, federal agencies, providers and provider collaboratives.	**Option** for your organization to **also** exchange with healthcare organizations participating in TEFCA QHINs.

How is the eHealth Exchange different?

eHealth Exchange	Other Networks
✓ National non-profit focused on the Public Good	⚠ Single technical connection instead of hundreds
✓ Single technical connection instead of hundreds	⚠ Vendor agnostic
✓ Vendor agnostic	⚠ 24x7x365 monitoring
✓ 24x7x365 monitoring	✋ Mandatory content testing
✓ Enforced content quality assurance	⚠ Analytics portal dashboard
✓ Analytics dashboard	✋ Broad federal agency connectivity
✓ Broad federal agency connectivity	
✓ Trust (no patient tracking, no selling data)	✓ Yes
	⚠ Sometimes
	✋ No

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Project US@ Requirements

By Eric Heflin, Co-Author of Project US@

Project US@ ("US Address")

- Source: https://oncprojectracking.healthit.gov/wiki/download/attachments/180486153/Project%20US@%20FINAL%20Technical%20Specification%20Version%201.0.pdf

- ONC-driven project

- Goal: Standardize addresses for interoperable patient matching

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Historical and Unknown Addresses

- **CURRENT AND HISTORICAL ADDRESSES**
- There MAY be no limit to the number of historical patient addresses that systems could maintain.
- For systems that are able to leverage these data, historical addresses may be valuable for patient matching.

- **UNKNOWN ADDRESS**
- If components of a patient's address are unknown, then those fields SHOULD be left blank. If those fields are not left blank, then UNKNOWN (spelled out, all capital letters) MUST be entered for that element in the patient record.
- Patient matching algorithms SHOULD NOT match on the value UNKNOWN, developers SHOULD flag UNKNOWN in their patient matching solution to avoid misclassification.
- Developers MAY indicate UNKNOWN for any component of a patient address in accordance with the standard(s) in use (e.g., if a standard only allows numeric text in the ZIP code field, then that field may be left blank).

Address Parsing

- Systems SHOULD uniformly parse data according to the following format (Note: On Page 16 these rules are listed as a MUST condition)

Business/Firm Name	Only to be used for patient addresses containing businesses
Street Address Line	<PRIMARY ADDRESS NUMBER><PREDIRECTIONAL><STREET NAME><SUFFIX><POSTDIRECTIONAL><SECONDARY ADDRESS IDENTIFIER><SECONDARY ADDRESS>
Last Line	<CITY><STATE><ZIP+4>

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Non-Address Information / Business Names / Geographics Features

- **NON-ADDRESS INFORMATION**

- At times, non-address data will be captured and stored in fields intended to represent a patient's address. In these cases, this information SHOULD be removed.

- **BUSINESS NAMES**

- Business names are allowed as outlined in the Standardized Patient Business Addresses section.

- **GEOGRAPHIC FEATURES**

- Use of geographic features are discouraged if the patient's record contains a street address.

- If the patient's record does not contain a street address, then it is recommended that developers and health information professionals not abbreviate whatever data is presented by the patient.

Letter Case / Diacritics

- **Letter Case**
- Alphabetical letters SHOULD be uppercase on all lines of the address. Lowercase letters are acceptable, provided they remain human and machine readable.

- **Diacritics**
- If patient matching algorithms are not designed to identify and disregard these [diacritics] or any other unrecognizable character, additional matching errors may occur.
- Diacritics SHOULD follow Appendix A for mapping guidance between letters containing diacritics and other representations.
- With the exception of the hyphen in the ZIP+4 Code and in the primary number used in the patient street address line, punctuation SHOULD be omitted in the patient address record.

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Punctuation

	All white space characters including groups of multiple white space characters MUST be changed to a single space, except between state abbreviations and ZIP Codes or ZIP+4 Codes and when patients have Canadian addresses, two spaces should between the province abbreviation and the postal code.
*	Asterisks
,	Commas
.	Periods
( )	Parentheses
" "	Quotations
:	Colons
;	Semicolons
`	Apostrophes
-	Hyphens, except in the ZIP+4 Code and in the primary number used in the patient street address line. Spaces before and after the hyphen or slashes (/) SHOULD be removed from the address or business/firm name line. Spaces SHOULD NOT be removed between elements, as concatenation is to be avoided.
@	At
&	Ampersand

See: Page 15

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Punctuation (Contd.)

- The pound sign (#) is not considered a special character or punctuation, hence, the pound sign should not be removed. The pound sign (#) COULD be used as a secondary unit designator if the correct designation, such as APT or STE, is not known.

- Unprintable characters may be considered white space.

- **HYPHENATED ADDRESS RANGES**

- Hyphenated address ranges are prevalent in New York City (for example, 112–10 BRONX RD), Hawaii, and areas in southern California. The hyphen in the primary range MUST NOT be removed.

Grid Style Addresses

- **GRID STYLE ADDRESSES**

- These MAY contain significant punctuation, such as periods (for example, 39.2 RD, 39.4 RD). There are also grid style addresses in Salt Lake City that include double directionals (for example, in 842 E 1700 S: E is a predirectional, S is a postdirectional, and 1700 is located in the street name field).

- **ALPHANUMERIC COMBINATIONS**

- Some patient addresses MAY contain a combination of alpha and numeric characters. For example, N6W23001 BLUEMOUND RD, as found in Wisconsin and Northern Illinois. Alphanumeric address ranges create a challenge for accurate matching.

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Fractional Addresses / Spanish Words

- **FRACTIONAL ADDRESSES**

- Fractional patient addresses MAY be represented as three or four character positions (for example, 123 1/2 MAIN ST). 123 1/2 takes seven character positions in the range field.

- **Spanish and Other Non-English Words**

- Do not replace the Spanish words with the English translation in the patient record.

Street Address - Primary Address Number

- **Street Address Line**

- Each known address element MUST be segmented into individual components with one space between each element. These components are the primary address number, predirectional, street name, suffix, postdirectional, secondary address identifier, and secondary address. Follow guidance in the Unknown Address section if address elements are unknown or unavailable.

- **Primary Address Number**

- To standardize a patient address, the primary address number MUST be placed before the street name.

Street Address - Predirectional and Street Name

- **Predirectional**
- Directional is a term used to refer to the part of the address that gives directional information for a patient address (i.e., N, S, E, W, NE, NW, SE, SW). If a directional word is found as the first word in the street name and there is no other directional to the left of it, then the predirectional SHOULD be abbreviated to the appropriate one– or two–character abbreviation.

- **Street Name**
- Numeric street names, for example, 7TH ST or SEVENTH ST, MUST be conveyed exactly as it appears in the patient's official identification (government issued or insurance card).
- Corner addresses SHOULD be replaced by standardized street addresses if known.

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Street Address – Suffixes / Postdirectionals

- **Street Suffix Abbreviations**

- Street suffixes such as Boulevard and Avenue MUST be abbreviated according to the standard street suffix abbreviations in Appendix B.

- **Postdirectional**

- If a directional word is located to the right of the street name and suffix, then the directional MUST be abbreviated to the appropriate one– or two–character abbreviation and located in the postdirectional field. Spaces SHOULD NOT be entered between letters making up an abbreviation for a postdirectional.

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Street Address – Other Directionals

- **Other Directional Considerations**

- **Two Directionals**
- If two directional words appear consecutively as one or two words, before the street name or following the street name or suffix, then the two words SHOULD become either the pre– or the post-directionals.
- Exceptions are any combinations of NORTH-SOUTH or EAST–WEST as consecutive words. In these cases, the second directional SHOULD become part of the street name and SHOULD be spelled out completely in the street name field. Directionals SHOULD be spelled out if part of the patient street address name.
- Directional letters SHOULD NOT be combined with alphabet indicators. Directional street names SHOULD be spelled out. Directionals SHOULD be abbreviated after the street name.
- Directional as Part of Street Name
- If the directional word appears between the street name and the suffix, then it SHOULD appear as part of the street name and SHOULD be spelled out in the patient record

See: Pages 17-18

Street Address - Secondary Addresses

- **Secondary Address Unit Designators**

- Secondary address unit designators, such as apartment or suite, are required elements for those patient demographic records containing secondary unit designators. Secondary address unit designators MUST be at the end of the Patient Street Address Line. The pound sign (#) MUST NOT be used as a secondary unit designator if the correct designation, such as APT or STE, is known

Table 1: Secondary Address Unit Designators

Description	Approved Abbreviation
Apartment	APT
Basement	BSMT**
Building	BLDG
Department	DEPT
Floor	FL
Front	FRNT**
Hanger	HNGR
Key	KEY
Lobby	LBBY**

See: Pages 18-19

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Lot	LOT
Lower	LOWR**
Office	OFC**
Penthouse	PH**
Pier	PIER
Rear	REAR**
Room	RM
Side	SIDE**
Slip	SLIP
Space	SPC
Stop	STOP
Suite	STE
Trailer	TRLR
Unit	UNIT
Upper	UPPR**

** Does not require additional data, such as number or letter, to follow. These secondary unit designators SHOULD stand alone at the end of the patient address line.

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Street Address – Suffixes

- **Suffixes**

- The suffix of the address MUST conform to the standard suffix abbreviations outlined in Appendix B.

- **Two Suffixes**

- If an address has two consecutive words that appear in Appendix B, the second of the two words MUST be abbreviated according to the standard suffix abbreviations and MUST be placed in the suffix field. The first of the two words SHOULD be part of the street name, and SHOULD be spelled out in the patient record in its entirety after the street name.

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Street Address - Highways / City Names / Possessions

- **Highways**
- County, state, and local highways MUST follow the standardized format as illustrated by examples in Appendix C. Please note that words like HIGHWAY, COUNTY, or INTERSTATE are not abbreviated if part of the patient's street name. More examples can be viewed in Appendix C.

- **Last Line**
- **City Names**
- City names SHALL be spelled out in their entirety. Patient address records MUST have at least one space between the city name, two–character state abbreviations, and ZIP+4 Code.

- **Two Letter State and Possession Abbreviations**
- Names of states and U.S. possessions MUST follow the standardized abbreviations outlined in Appendix D.

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Street Address - Military

- **MILITARY ADDRESSES**

- Patient records containing addresses to Army/Air Post Offices (APOs), or Fleet Post Offices (FPOs) are required to include the patient's name and rank, per USPS Publication 28.

- APO/FPO patient addresses MUST include the unit, the box number, the APO/FPO address, and the 9-digit ZIP Code. City or country names MUST NOT be included in APO/FPO shipping addresses.

- The Street Address Line for all APO/FPO military patient addresses MUST be standardized to include the appropriate military address type with its assigned number and a box number. There are five possible military address types: CMR (Consolidated Mail Room), OMC (Official Mail Center), PSC (Postal Service Center), UMR (Unit Mail Room), and UNIT. The assigned number and the box number MUST follow one of these acronyms.

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Street Address – Military (Contd.)

- **Domestic Locations**

- Most domestic military addresses must have a conventional street style address. Domestic Military addresses MUST use only the city name along with the approved two–character state abbreviation and the ZIP Code or ZIP+4 Code.

- **Overseas Locations**

- Overseas military addresses MUST contain the APO or FPO designation along with a two–character "state" abbreviation of AE, AP, or AA and the ZIP Code or ZIP+4 Code. AE is used for armed forces in Europe, the Middle East, Africa, and Canada; AP is for the Pacific; and AA is for the Americas excluding Canada.

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Street Address - Department of State (DPO)

- **DEPARTMENT OF STATE ADDRESSES**

- DPO patient addresses MUST include the unit, the box number, the DPO address, and the 9-digit ZIP Code. City or country names MUST NOT be included in DPO shipping addresses. Patient records containing addresses to DPOs are required to include the patient's name, per USPS Publication 28. Guidance for the patient's name is out of scope for this document.

Street Addresses - Rural Route

- **RURAL ROUTE ADDRESSES**
- The rural route number in a patient record MUST be standardized as follows:
  - RR ____ BOX ____
- SHOULD NOT use the words RURAL, NUMBER, NO., or the pound sign (#).
- MUST NOT add a leading zero before the rural route number.
- SHOULD include hyphens as part of the box number only when they are part of the address.
- SHOULD change the designations RFD and RD (as a meaning for rural or rural free delivery) to RR.
- SHOULD NOT allow additional designations, such as town or street names, on the patient Street Address Line of rural route addresses.

Street Addresses - General Delivery

- Developers MUST use the words GENERAL DELIVERY, all uppercase, spelled out (no abbreviation), as the patient street address line in the patient record if the patient has a general delivery address.

- Each general delivery record SHOULD carry the –9999 add-on code.

- The ZIP Code or ZIP+4 Code MUST be correctly applied for patient addresses with a general delivery.

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Post Office Box Addresses

- **POST OFFICE BOX ADDRESSES**

- Post Office Box addresses in a patient record MUST be standardized as follows:

  – PO BOX _____ (the actual number, numbers, or letter)

- Developers MUST NOT add a leading zero before the post office box number.

- PO Box addresses often appear with the words CALLER, FIRM CALLER, BIN, LOCKBOX, or DRAWER, or other synonyms. When this occurs, developers MUST change these words to PO BOX in the patient record.

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Private Mail Boxes / Commercial Mail Receiving Agencies (CMRA)

- Patient addresses at a CMRA MUST include either the PMB identifier or the numerical identifier, followed by the appropriate private mailbox number. Developers MUST NOT use any other identifiers.

- Where the CMRA's physical address requires its own secondary address element, the PMB or # address must follow the specific format rules stated below. Developers MUST NOT combine the secondary address element of the address for the CMRA and the CMRA patient's private box number.

- The words POST OFFICE BOX or PO BOX and the private mailbox number MUST NOT be used on the Street Address Line. The Street Address Line is the standardized address of the private company.

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Private Mail Boxes / Commercial Mail Receiving Agencies (CMRA) (Contd.)

- "Normative" formatting rule examples:
- Format 1:
  - PMB 234
  - RR 1 BOX 12
  - HERNDON VA 22071-2716
- Format 2:
  - PMB 234
  - 10 MAIN ST STE 11
  - HERNDON VA 22071-2716
- Format 3:
  - 123 MAIN STREET PMB 4545
  - HERNDON VA 22071-2716
- Format 4: <seems to contradict rules on prior slide>
  - PO BOX 159753 PMB 3571
  - HERNDON VA 22071-2716

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U.S. Islands and Other Territories

- **U.S. ISLANDS AND OTHER TERRITORIES**

- The U.S. Virgin Islands and other territories do not use urbanizations or Spanish words. Single primary street addresses do not have lot numbers as part of the patient addresses. These are physical identifiers.

- For patient addresses to the U.S. Virgin Islands, developers MUST use VI as the correct abbreviation for the Virgin Islands. Developers MUST NOT use USVI, VIS, VI USA, or USA VI.

Canadian Addresses

- **CANADIAN ADDRESSES**

- The following address format is used when the postal address delivery zone is included in the address.

- Developers MUST use the standard two–character abbreviation for provinces and territories.

- On patient records with addresses to Canada, developers SHOULD have two spaces between the province abbreviation and the postal code, as shown below between "ON" and "K1A 0B1":

- Alberta = AB, British Columbia = BC, Manitoba = MB, New Brunswick = NB, Newfoundland and Labrador = NL, Northwest Territories = NT, Nova Scotia = NS, Nunavat Territory = NU, Ontario = ON, Prince Edward Island = PE, Quebec = QC, Saskatchewan = SK, Yukon Territory = YT

- "Normative" example:
  - 1010 CLEAR STREET
  - OTTAWA ON K1A OB1
  - CANADA

Other International Addresses

- **OTHER INTERNATIONAL ADDRESSES**

- The very last (or bottom) line of an international patient address MUST contain only the COUNTRY name, and MUST be written in full with no abbreviations and SHOULD be in capital letters.

- Developers MUST NOT place the postal codes of foreign country designations on the last line of the address and MUST NOT underline the COUNTRY name.

- Note that the Project US@ AHIMA Companion Guide includes guidance and best practices on the capture and management of patient addresses in Mexico

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Business Addressing Standards

- If a patient record contains a business address, developers MUST include a patient address line, and MUST contain the last line which MUST contain City, State, ZIP Code, and ZIP+4, if known.

- Business addresses may contain other address data elements including apartment or suite numbers, Post Office Box addresses, and a rural/highway contract route address (with route and box numbers).

- Developers MUST use the recommended abbreviations or suffix tables identified in this document.

- The business/firm name MUST be a separate element in a patient address, SHOULD follow other formatting rules outlined in this document, and MAY disregard the business/firm name when matching records to avoid error.

- Developers SHOULD NOT remove the hyphen between the ZIP Code and ZIP+4 Code. See the Special Characters section for more information on how to handle special characters in business addresses.

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Patient Business Addresses

- **Patient Business Address Elements**
- To understand the complexity of business addressing, efforts have been made to identify and define the many individual data elements that can be included in a business address for patients. The following elements are within the scope of Project US@:
  - Street Number
  - Predirectional
  - Street Name
  - Street Suffix
  - Postdirectional
  - Secondary Unit Indicator
  - Secondary Number
  - PO Box Number
  - City
  - State
  - ZIP Code
  - ZIP+4 Code

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Business Addressing Standards

- In those instances where certain constraints limit the number of words or characters that can be placed in the patient record, the developers MUST replace fully spelled words with standard address and business word abbreviations.

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Noise Words

- **Remove Certain Words**

- Developers SHOULD replace or remove certain words as listed below.

- Further, developers SHOULD use standard business word abbreviations and SHOULD NOT remove words from a patient business address. The following compression technique should be applied only if the standard abbreviations do not meet particular business needs.

- Remove etc., i.e., in care of, and et al.

- Remove words like the, of, by, for, at, also.

- Remove ATTENTION, ATTN:.

Other Rule Sets (See the Project US@ document for details)

- PUERTO RICO ADDRESSES (pp. 24-31)
  - Not shown in this presentation are a large number of rules related to Puerto Rico addresses
- APPENDIX A. DIACRITIC MAPPING GUIDANCE (pp. 39-42)
- APPENDIX B. STREET SUFFIX ABBREVIATIONS (pp. 43-56)
- APPENDIX C. ADDRESS STANDARDIZATION - COUNTY, STATE, LOCAL HIGHWAYS (pp. 57-58)
- APPENDIX D. TWO–LETTER STATE AND POSSESSION ABBREVIATIONS (pp. 59-61)
  - Geographic Directional
  - Military "State"
- APPENDIX E. STANDARD ABBREVIATIONS FOR SPANISH–LANGUAGE ADDRESSES (p. 62)
- APPENDIX F. COMMON TRANSLATIONS FOR PUERTO RICO ADDRESSES (pp. 63-64)

TEFCA Readiness Checklist

TEFCA Participant Flow-Down Checklist

- TEFCA Checklist (focus on technical requirements)
  - Performance & Service Specifications
  - Data Classes & Elements
  - Technical Messages
  - Directory (Populating & Consuming)
  - Operations
  - Reporting
- Other Checklist items (not covered today)
  - Testing Requirements
  - Legal Flow-Downs
  - eHealth Exchange TEFCA Protocols

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Readiness Checklist Interactive Review

- https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange/

Performance & Service Specifications

- Please see this section of the TEFCA Flowdown Checklist for more details...

Performance & Service Specifications	Citations/Links	QTF Requirement(s)
USCDI: Adopt Core for Data Interoperability (USCDI) v1 as a new standard for TEFCA exchange.	https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi https://rce.sequoiaproject.org/summary-of-required-flow-down-provisions/	QTF-047 QTF-092
US@: Adhere to Project US@ address formats v1 for constrained address standards.	https://oncprojectracking.healthit.gov/wiki/download/attachments/180486153/Project%20US@%20FINAL%20Technical%20Specification%20Version%201.0.pdf	QTF-038 QTF-089
Concise C-CDA: Adhere to Concise Consolidated CDA 2.0 to address 1) large C-CDA documents, 2) absence of clinical notes, 3) support for encounter summary documents, 4) document lifecycle management, and 5)	https://carequality.org/wp-content/uploads/2022/03/Imp	QTF-046

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Data Classes & Elements

- Please see this section of the TEFCA Flowdown Checklist for more details…

Data Classes & Elements		QTF Requirement(s)
USCDI: Validate conformance with, and operational use of, USCDI V1.	https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi	QTF-047 QTF-092
Duplicate Data: The RCE may require an unspecified level of data de-duplication so that data is only returned once to the QHIN ultimate initiator. This requirement would flow down to the eHx TEF Participants and Sub-Participants. The RCE requirement potentially could be at the document, section, entry, FHIR resource level, or at the discrete data level. A potential approach to implement this requirement is for data aggregators to inspect C-CDA document internal unique IDs, or FHIR or C-CDA Provenance data. This item is still under research.		

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Technical Messages

- Please see this section of the TEFCA Flowdown Checklist for more details...

Technical Messages	Citations/Links	QTF Requirement(s)
XCPD Aggregated Responses: Initiating systems must support receiving Patient Discovery (XCPD) aggregated responses. (eHx Hub Group Queries can return XCPD aggregated responses as can broadcast queries.) This requirement is anticipated to require development work for initiating gateways.	https://profiles.ihe.net/ITI/TF/Volume2/ITI-55.html#3.55.4.2.2.4	QTF-028 QTF-034
No Health Data Locator: Verify your organization's system uses the NotHealthDataLocator tag in Patient Discovery (IHE XCPD) match responses.	https://profiles.ihe.net/ITI/TF/Volume2/ITI-55.html#3.55.4.2.2.5	QTF-036
All Patient Discovery Demographics: For directed queries, when requesting data, include all known demographics as per the QTF PD Use Case QTF Alternate Flow 1, and include all known historical addresses as per USCDI v1 and those addresses must be adhere to Project US@ Patient Address Metadata Schema	https://oncprojectracking.healthit.gov/wiki/download/attachments/180486153/Project%20US@%20FINAL%20Technical%20Specification%20Version%201.0.pdf?version=1&modificationDate=1641563329051&api=v2 https://rce.sequoiaproject.org/wp-	QTF PD Use Case Requirements Alt Flow 1 QTF-038

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Directory (Populating & Consuming)

- Please see this section of the TEFCA Flowdown Checklist for more details...

Directory (Populating & Consuming)	Citations/Links	QTF Requirement(s)
New Directory Implementation Guide (IG): Populate and consume the QHIN Directory as specified in the Directory Implementation Guide (IG) that was published by the RCE (draft published 2023-03-04). Among other requirements and SLAs, the IG will require detailing your organization's sub-participants such as individual clinics and hospitals. The directory will be maintained by eHx in collaboration with QHIN Participants.	https://rce.sequoiaproject.org/tefca-and-rce-resources https://rce.sequoiaproject.org/RCEIG/output/index.html	QTF-075
Directory Pre-Population: Populate the Directory prior to the information affecting the production environment no less than 48 hours before the changes are implemented in the production environment.	https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-103 QTF-104
Sub-Participant Data: Populate the directory with facility locations and probably clinic, mental health center, post-acute/long-term care facility, public health entities, payer locations, and others once published in the RCE Directory Service Implementation Guide.	https://rce.sequoiaproject.org/tefca-and-rce-resources	QTF-077
Declare PurposeOfUse: The directory must be populated with all intended PurposeOfUse values used to request data, limited to TREATMENT, PAYMENT, OPERATIONS, PUBLICHEALTH, REQUEST.	QTF: See IHE IT Infrastructure Technical Framework Volume 2b Section 3.40.4.1.2.3 PurposeOfUse Option for details:	QTF-023 QTF-078

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Operations

- Please see this section of the TEFCA Flowdown Checklist for more details...

Operations	Citations/Links	QTF Requirement(s)
Respond Without Error: Connect and respond to all requests from every other QHIN, via the eHx Hub, without error. Be prepared to address and resolve any failure in connectivity in the shortest time that is not infeasible, with infeasibility to be determined and demonstrated.	https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-002
ATNA Log Entries: Provide Participant gateway ATNA log entries to eHx when requested, typically during onboarding. This requirement is anticipated to largely, but not exclusively, focus on the onboarding testing process.	https://profiles.ihe.net/ITI/TF/Volume1/ch-9.html https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-119

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Reporting

- Please see this section of the TEFCA Flowdown Checklist for more details...

Reporting	Citations/Links	QTF Requirement(s)
Downtime Reports: By the 5th of each month, submit, to eHx staff, the previous calendar month's Initiating and Responding Gateway downtime in minutes for the Participant and any Sub-participants with planned and unplanned downtime differentiated.	https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-116
Quarterly Detailed Reporting: Four weeks before the end of each calendar quarter, submit the following reports for the prior calendar quarter to eHx staff:	https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-117
• Total number of **member organizations** and/or **facilities** connecting as or through your organization (**including Sub participants**) with counts for each **hospital, clinic, mental health center, post-acute/long-term care facility, public health entities**, and **payer organizations** as well as an **aggregate count of any other** member organizations and/or facilities not matching these categories.	https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-117

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Testing Requirements

- Please see this section of the TEFCA Flowdown Checklist for more details...

Testing Requirements	Citations/Links	QTF Requirement(s)
Test Patients: Create and maintain one or more active QHIN test patient records and test clinician records for diagnostic and onboarding in both <u>test</u> and <u>production</u> environments. Name QHIN test patients with given name "QTF TEST" and family name QTFTEST-### (e.g., QTFTEST-001), with at least one corresponding C-CDA 2.1 document with fictional clinical data that can be queried and retrieved. This must include at least one C-CDA Discharge Summary and Progress Note template document for the test patient. Participants serving outpatient clinics and inpatient hospitals MUST create such documents. Any encounters, etc. MUST be linked to the required Test Clinician.	https://rce.sequoiaproject.org/tefca-and-rce-resources/ https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-106 QTF-107 QTF-109 QTF-110 QTF-111 QTF-112 QTF-113 QTF-114 QTF-118 QTF-121
RCE Testing: Support eHx in 1) meeting all applicable Trusted Exchange testing processes and requirements, 2) the use of the RCE test environment for QHIN onboarding, and 3) monthly and quarterly testing of all QHINs. Participants and Sub-Participants may need to subscribe to and use the RCE test tool to verify their conformance.	https://rce.sequoiaproject.org/tefca-and-rce-resources/ https://rce.sequoiaproject.org/wp-content/uploads/2022/01/QTF_0122.pdf	QTF-106 QTF-107 QTF-109 QTF-110 QTF-118 QTF-121

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Legal Flow-Downs *

- Please see this section of the TEFCA Flowdown Checklist for more details...

Legal Flow-Downs *	Citations/Links	QTF Requirement(s)
Ensure your organization and each of your Subparticipants agree to comply and incorporate the Required Flow-Down provisions into respective Framework Agreements. Please see the eHx TEFCA Terms and Conditions (link to the right). If your organization does not opt out, as per eHx OPP#10, they are bound by the eHx TEFCA Terms and Conditions, eHx TEFCA Protocols, and eHx TEFCA Supplements which include all flow-downs in the Common Agreement. The eHx is obligated to abide by the TEFCA Onboarding and Designation guide and your organization should be available to assist as needed in this onboarding process.	Flow-down provisions: https://ehealthexchange.org/wp-content/uploads/2023/03/TEFCA-Terms-and-Conditions-eHealth-Exchange.pdf OPP#10: https://ehealthexchange.org/wp-content/uploads/2020/08/082020-CC_OPP-10_New-Networks.pdf	n/a (required by Common Agreement)
Multi-Factor Authentication (MFA): The RCE states the following "Each QHIN, Participant, and Subparticipant shall require that Workforce members who are authorized users of systems which access TI or Protected Health Information (PHI), (including those who request TI or PHI, or request TI or PHI be sent to a third party) be authenticated at Authenticator Assurance Level (AAL2)". This requirement is pending final decision by RCE based on feedback from prospective QHINs. In addition the eHx is seeking clarifications. The RCE cites: NIST SP 800-63B.	https://rce.sequoiaproject.org/wp-content/uploads/2022/11/SOP-QHIN-Participant-and-Subparticipant-Additional-Security-Requirements-for-public-feedback_FINAL.pdf https://pages.nist.gov/800-63-	Required by the Draft Additional Security Requirements SoP

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TEFCA Protocols (aka Policies)

- Please see this section of the TEFCA Flowdown Checklist for more details...

TEFCA Protocols (aka Policies)	Citations/Links	QTF Requirement(s)
eHx TEFCA Governance Protocol Draft: QHIN Participants and Sub-Participants should review and comply this new TEFCA Protocol (aka Policy) as it will apply to them. The current version of this protocol has been submitted to the RCE and is pending review. This is one of five policies required by the RCE. Per OPP#10, notification will be sent by the Coordinating Committee for eHx Participants to review the requirements and make a decision to Opt-Out within 60 days. If the Participant does not opt out per OPP#10, they are bound by the eHx TEFCA Terms and Conditions, eHx TEFCA Protocols, and eHx TEFCA Supplements which include all flow-downs in the Common Agreement.	https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange/ https://ehealthexchange.org/wp-content/uploads/2020/08/082020-CC_OPP-10_New-Networks.pdf	
TEFCA Security Incident Protocol Draft: Same status as the Governance Protocol Draft.		
Change Management Protocol Draft: Same status as the Governance Protocol Draft.		
Participant Enforcement Protocol Draft: Same status as the Governance Protocol Draft.		

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Sample Upcoming Additional Requirements from RCE (dates unknown)

- Please see this section of the TEFCA Flowdown Checklist for more details…

Sample Upcoming Additional Requirements from RCE (dates unknown)	Citations/Links	QTF Requirement(s)	Not Ready
SLAs: Service Level Agreements. We expect the TEFCA governing body to create a Standard Operating Procedure (SOP) capping maximum response times and other Service Level Requirements (SLA).	https://rce.sequoiaproject.org/tefca-and-rce-resources/	n/a (required by SOP)	
Onboarding: The eHx is responsible to ensure our Participants and their Subparticipants meet the TEFCA requirements as we onboard them, and ourselves, to the TEF. Please see the eHx resources page for more information once it becomes available.	https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange/	n/a (required by SOP)	
Updated Validation Plan: Adhere to the updated version 13 of the eHx validation plan Attachment #3 regarding TEFCA Onboarding of Participants/Subparticipants.	https://ehealthexchange.org/wp-content/uploads/2022/10/eHealth-Exchange-Validation-Plan-v13.pdf	n/a (required by SOP)	

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References

- Please see this section of the TEFCA Flowdown Checklist for more details…

References:

eHx Technical Specifications	https://ehealthexchange.org/testing-program/technical-spec
USCDI v1	https://www.healthit.gov/isa/sites/isa/files/2020-10/USCDI-\
Project US@	https://oncprojectracking.healthit.gov/wiki/download/attach
IHE ITI Tech Framework v17+	https://profiles.ihe.net/ITI/TF/index.html
TEFCA QHIN QTF v1.0	https://rce.sequoiaproject.org/wp-content/uploads/2022/01
Concise C-CDA v2.0	https://carequality.org/wp-content/uploads/2022/03/Improv
Older IHE ITI Tech Framework v17 cited by the QTF	https://www.ihe.net/uploadedFiles/Documents/ITI/IHE_ITI_
ONC RCE TEFCA Resources	https://rce.sequoiaproject.org/tefca-and-rce-resources/
QTF v1	https://rce.sequoiaproject.org/wp-content/uploads/2022/01
eHx TEFCA Terms and Conditions	https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchan

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Major Technical Differences eHealth Exchange QHIN Participants Must Support

1. Adopt USDCI v1 data classes and elements

2. Adhere to the Concise Consolidated CDA 1.1 Specification

3. Adhere to Project US@ patient addressing

4. Adopt IHE ITI Technical Framework Revisions 17.0 (versus Revision 8.0)

5. Accept aggregated XCPD responses

6. Various requirements such Purpose Of Use values, different consent attribute structure, sub-participant directory entries and detailed reporting, onboarding log submissions, specific test patients, and quarterly reporting.

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Next Steps

1. Review the published policy documents (not discussed today)
2. Review the TEFCA Readiness Checklist
3. Let the eHealth Exchange staff know of your organization's intentions

email: administrator@ehealthexchange.org

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Questions?

How might I obtain additional information?

How	When	Where
1. Visit eHealth Exchange Web Site	Any time	https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange
2. Monthly Participant Web Meetings	Typically, the 3rd Thursday of Each Month at 1 pm ET	https://ehealthexchange.org/events
3. Monthly TEFCA Policy Compliance Meetings	Dates coming soon!	https://ehealthexchange.org/events
4. Monthly TEFCA Technical Compliance Meetings	Dates coming soon!	https://ehealthexchange.org/events
5. Email	Any time if you have a specific question	administrator@ehealthexchange.org

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