June 13, 2019

Don Rucker, MD
National Coordinator
Office of the National Coordinator for Health Information Technology (ONC)
Department of Health and Human Services (HHS)
Mary E. Switzer Building
300 C Street SW
Washington, DC 20201

Attention: Trusted Exchange Framework and Common Framework (TEFCA) Draft 2

Submitted electronically
to: https://www.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement

Dear Dr. Rucker:

The eHealth Initiative (eHI) welcomes the opportunity to submit comments on the Trusted Exchange Framework and Common Framework (TEFCA) Draft 2.

eHI is in a unique position to offer input on TEFCA Draft 2, as a Washington DC-based, independent, non-profit organization whose mission is to drive improvements in the quality, safety, and efficiency of healthcare through information and information technology. We are the only national organization that represents all stakeholders in the healthcare industry and regularly “convene healthcare’s best.” Working with our membership and workgroups, eHI advocates for the use of health IT that is practical, sustainable and addresses stakeholder needs. Our expertise is quite relevant as ONC starts executing on provisions and programs related to TEFCA Draft 2.

The eHealth Initiative appreciates and affirms the role of the TEFCA Draft 2 in furthering ONC goals of:

- Providing a single “on-ramp” to nationwide connectivity;
- Ensuring electronic information securely follows when/where needed;
- Supporting nationwide scalability for network connectivity.

eHealth Initiative values that its comments and that of other key stakeholders regarding the February 2018 Trusted Exchange Framework (TEF) is reflected in the TEFCA Draft 2 by:
• Adding a separate QHIN Technical Framework (QTF) distinct from the legal terms of the Common Agreement;
• Extending the timeline for QHINs to update and comply with agreements and technical requirements from 12 to 18 months;
• Refining the exchange modalities, as well as relaxing QHIN pre-requisites, to better reflect today’s healthcare practice and market realities;
• Continuing to provide strong support for the concept of an RCE and its intended scope of responsibilities; and
• Incorporating more flexibility to build from existing exchange capability and standards, as well as a phasing-in of appropriate provisions and requirements.

As the programs and policies related to TEFCA Draft 2 roll-out, eHealth Initiative continues to emphasize the themes below -- as we did in our February 2018 comments on the TEF -- that:

• **RCE Independence** – The RCE should have significant independence from ONC with transparent accountability (including to ONC) and governance that engages all stakeholders, and particularly end-users;
• **Sustainability** – The TEFCA processes, including the RCE and the QHIN, must be financially sustainable and not overly dependent on federal funding; and
• **Patients and Caregivers** – In efforts to ensure that Individuals and their authorized caregivers have easy access to their Electronic Health Information (EHI) (reflected in TEF Principle 5), it is important that the voices of patients and caregivers be heard and that they are at the table with other key constituencies when working to improve their access and contributions to their health information. And, as an individuals’ access grows, it will be critical for them to be presented information in a way that helps patient and caregivers understand their care record.

eHealth Initiative provides our detailed comments in this letter on all three portions of TEFCA Draft 2 including the:

• Trusted Exchange Framework (TEF) Draft 2;
• Minimum Required Terms and Conditions (MRTCs) Draft 2; and

Our comments highlight overarching observations, as well as implementation, timelines and other issues. We highlight eHI’s extensive eHealth Resource Center at: https://www.ehidc.org/resources that can provide important ONC context and guidance. We look forward to working with you. If you have any questions or need clarifications, please contact me at Jennifer.Covich@ehealthinitiative.org.

Sincerely,

Jennifer Covich Bordenick
Chief Executive Officer
eHealth Initiative

**Specific Issue Resposnes**
**Overarching Issues**

**Agency Coordination and Program Sustainability**

**Comments:**
- eHI urges ONC to work closely with its federal partners in implementing programs and policies related to TEFCA Draft 2.
- We also emphasize that the TEFCA processes, including the RCE and the QHIN, must be financially sustainable and not overly dependent on federal funding.

**eHealth Initiative and the Recognized Coordinating Entity (RCE)**

In order to meet the goals of the 21st Century Cures Act, build on existing work done by the industry, and scale interoperability nationwide, ONC will select a Recognized Coordinating Entity (RCE) to develop, update, implement and monitor compliance with the Common Agreement and the QTF on behalf of ONC, among other functions.

**Comments:**
- There is vital work to be done by the RCE. eHealth Initiative -- as the key multi-stakeholder consensus organization in health information technology -- is ready to provide appropriate expertise and support to the RCE and ONC with their tasks.
- We emphasize that ONC should encourage the RCE to engage, on an on-going and systematic basis, with applicable constituencies on issues related to revisions to the TEFCA Draft 2 and its successors.
- eHealth Initiative continues to highlight as we did in our February 2018 comments on the TEF, that the RCE should have significant independence from ONC with transparent accountability (including to ONC) and governance that engages all stakeholders, and particularly end-users.
- eHealth Initiative agrees with ONC that an experienced private sector RCE should implement, maintain and monitor compliance with the Common Agreement and the QTF.

**TEFCA, Exchanges and QHIN Requirements/Structure**

**Comments:**
- eHealth Initiative cautions ONC to be very mindful the Congressional intent that the TEFCA avoid disruption and duplication of “existing exchanges between participants of health information networks.” And, where existing networks that meet needs are in place, we encourage you to build upon them.
- ONC’s TEFCA Draft 2 document offers many additional details about the Qualified Health Information Networks (QHINs), applications to the RCE and other important issues. eHealth Initiative expresses concern and caution about the complexity of the QHIN concept and its ecosystem. We urge ONC to pay close heed to public comments about whether the QHINs, as currently conceived, will work effectively and build enough value that there will be high levels of QHIN, Participant, and Participant Member engagement with the TEFCA. We also recommend that ONC ensures QHIN frameworks, procedures and policies -- while aligning with the 2018-2022 HHS Strategic Objective of Reforming, Strengthening, and Modernizing the Nation’s Healthcare System -- also follow a streamlined path supported by realistic infrastructure, resources and timelines.
- Our organization agrees with ONC that the TEFCA should not dictate internal requirements or structures of QHINs or their components.
Health Information Exchanges (HIEs) and QHINS

Comments:
- eHealth Initiative is deeply involved with health information exchange via its Connecting Communities Collaborative. We urge that the TEFCA Draft 2 and in particular the new QHIN structure, programs and procedures build on the current capacity of and sizable investments in health information exchange (HIE) made by the federal government and private sector over the last decade. HIEs and existing networks and exchange frameworks are notable assets and utilities for ensuring optimum health in communities, cities, states and regions across America. Models that ensure HIE economic, business and practice continuance are valuable and should be fundamentally integrated into QHIN design and roll out or at a minimum be allowed to continue in a synergistic way.

Fees
ONC defines fees in the TEFCA Draft 2 as “any present or future obligation to pay money or provide any other thing of value charged by a QHIN. Fees may include, but are not limited to, one-time membership fees, ongoing membership fees, testing fees, ongoing usage fees, transaction fees, and data analytics fees.

It also stipulates that:

- QHINs must use reasonable and non-discriminatory criteria if it charges any fees to another QHIN;
- QHINs may not charge another QHIN any amount to exchange EHI for Individual Access Services;
- QHINs may not impose any other fee on the Use or further Disclosure of the EHI once it is accessed by another QHIN; and
- Any additional requirements around fees will be specified in the ARTCs, which will be developed by the RCE and approved by ONC.

Comments:
- eHealth Initiative requests additional information and clarification around QHIN to QHIN fee details, particularly what constitutes “reasonable and non-discriminatory criteria” that a QHIN is to use if it charges any fees to another QHIN. Effective ONC and RCE communication with relevant stakeholders on fee issues will also be absolutely critical, given that any additional requirements around fees will be specified in the Additional Required Terms and Conditions (ARTCs), which will be developed by the RCE and approved by ONC. Consideration should be given around emerging stakeholders participating in exchange, such as patients, public health, and registries. Fee for exchange should not become a block on innovation, information exchange or new constituent participation.

Trusted Exchange Framework (TEF) Draft 2 (Appendix 1)

The Trusted Exchange Framework (TEF) Draft 2 describes a common set of principles that facilitate trust between HINs. These principles serve as “rules of the road” for nationwide electronic health information exchange. The six principles are:

- Principle 1 – Standardization: Adhere to industry and federally recognized standards, policies, best practices, and procedures.
• Principle 2 – Transparency: Conduct all exchange and operations openly and transparently.
• Principle 3 – Cooperation and Non-Discrimination: Collaborate with stakeholders across the continuum of care to exchange EHI, even when a stakeholder may be a business competitor.
• Principle 4 – Privacy, Security, and Patient Safety: Exchange EHI securely and in a manner that promotes patient safety, ensures data integrity, and adheres to privacy policies.
• Principle 5 – Access: Ensure that individuals and their authorized caregivers have seamless access to their EHI.
• Principle 6 – Population Level Data: Exchange multiple records for a cohort of individuals at one time in accordance with applicable law to enable identification and trending of data to lower the cost of care and improve the health of the population.

Comment: We ask ONC to clarify its expectations and associated industry obligations for the principles relative to the MRTCs, the ARTCs, and the QTF.

Principle 1 – Standardization: Adhere to industry and federally recognized standards, policies, best practices, and procedures

ONC states HINs should adhere to federally adopted standards for EHI and interoperability. Specifically, HINs should first look to use standards adopted by HHS, then those approved by ONC through the proposed standards version advancement process as part of the ONC Health IT Certification Program (Certification Program), and finally, those identified in the ISA. In instances where none of the above references include applicable standards, HINs should then consider voluntary consensus or industry standards that are readily available to all stakeholders, thereby supporting robust and widespread adoption. HINs should use standards-based technology to exchange EHI with other HINs. To minimize variation in how standards are implemented, such technology should be implemented in accordance with authoritative best practices published by an applicable standards development organization (SDO).

Comments:
• eHealth Initiative members represent the range of stakeholders in the healthcare industry and possess significant interest and experience in standardization, which can be leveraged. We urge that any standardization efforts conducted under Principle 1 are carried out in an open and transparent manner with broad stakeholder engagement and governance that appropriately balances relevant interests and uses the recognized principles that guide the ANSI-accredited standards development process.
• eHealth Initiative agrees with the ONC approach for HINs to use standards-based technology to exchange EHI with other HINs, that such technology should be implemented in accordance with authoritative best practices published by an applicable SDO and in instances where none of the above references include applicable standards, HINs should consider voluntary consensus or industry standards that are readily available to all stakeholders. This builds on consensus and current practice.
Principle 4 – Privacy, Security, and Safety: Exchange EHI securely and in a manner that promotes patient safety, ensures data integrity, and adheres to privacy policies.

Comments:
- eHealth Initiative has consistently supported these principles and is conducting notable work in several critical privacy and security areas regarding effective, common sense approaches to managing and protecting health data. We stand ready and willing to assist ONC with further development of private, secure and safe EHI exchange.
- The eHI Executive Advisory Board on Privacy and Security is a good resource for ONC in this area. It is comprised of chief information officers (CIO), chief information security officers (CISO) and chief privacy officers (CPO) from payer, provider and pharmaceutical organizations. The group meets quarterly with federal regulators and industry experts to discuss privacy and security concerns and identifies industry best practices and other regulatory tools available to aid in the management and protection of health data in the areas of: data security, appropriate data sharing, granular data control, data provenance and data matching. More information can be found at: https://www.ehidc.org/workgroups/4-executive-advisory-board-on-privacy-security.

Principle 5 – Access: Ensure that Individuals and their authorized caregivers have easy access to their EHI

A. Do not impede or put in place any unnecessary barriers to the ability of individuals to access and direct their EHI to designated third parties, and to learn how information about them has been access or disclosed.

ONC states HINs that maintain EHI should (1) enable individuals to easily and conveniently access their EHI; (2) enable individuals to direct their EHI to any desired recipient they designate; and (3) ensure that individuals have a way to learn how their information is shared and used. Much like the HIPAA law provisions on individuals’ access to their health information are important, for purposes of this Principle, ONC states HINs should not limit third party applications from accessing individuals’ EHI via an API when the application complies with the applicable data sharing agreement requirements and the individual has directed the entity to disclose a copy of ePHI to the application.

Comments:
- eHealth Initiative continues to emphasize the point expressed in our February 2018 comments on the TEF that, in efforts to execute Principle 5, it is important that the voices of patients and their caregivers be heard and that they be at the table when working to improve their access and contributions to their health information. And, as individuals’ access grows, it will be critical for them to be presented information in a way that helps patient and caregivers understand their care record.
- Our organization believes that the underlying intent of Principle 5 is positive but that the framework and API provisions that it lays out require significant revision and a shift away from treating HINs as having the same responsibilities to implement the HIPAA individual right of access, including through APIs. ONC should not seek to layer on top of a model of HIN exchange, a model of API access for individuals and their designated apps.
• eHealth Initiative has consistently supported concepts under Principle 5 and developed frameworks and actionable content to support them. Our organization stands ready to assist ONC with further development to ensure that Individuals and their authorized caregivers have easy access to their EHI.

**Minimum Required Terms and Conditions (MRTCs) Draft 2 (Appendix 2)**

**MRTC Development and Update**

Congress charged ONC in the 21st Century Cures Act with ensuring full network-to-network exchange of EHI through a Trusted Exchange Framework and Common Agreement. The TEFCA Draft 2 document outlines an updated version of Minimum Required Terms and Conditions (MRTCs) to ensure that signers of the Common Agreement accede to common practices and align to the principles and objectives contained in the TEF. ONC intends to update and release a Final TEF, while working with the RCE and industry stakeholders to modify and update the MRTCs Draft 2 and the QTF Draft 1.

**Comments:**

• eHealth Initiative emphasizes that ONC should employ a collaborative approach in working with a wide range of healthcare and industry stakeholders to modify and update the MRTCs Draft 2. This interactive method is the best avenue to ensuring MRTCs that reflect market realities and facilitate an optimal, orderly and smooth glide path to healthcare change. ONC’s work and consultation with RCE on the MRTCs is also critical. eHealth Initiative believes that the RCE should have a key role in finalizing the MRTCs.

**Additional Required Terms and Conditions (ARTCs)**

In addition to the MRTCs, the Common Agreement would include Additional Required Terms and Conditions (ARTCs) that are necessary for an effective data sharing agreement. These may include provisions that govern interactions between the RCE and the QHINs. The ARTCs are developed by the RCE and approved by ONC. The Recognized Coordinating Entity (RCE) will combine the MRTCs with the ARTCs into a full data sharing agreement -- known as the Common Agreement -- with which QHINs may voluntarily agree to be bound.

**Comments:**

• eHealth Initiative supports designating the RCE with responsibilities to develop the Additional Required Terms and Conditions (ARTCs). We believe that the RCE should also have an important role in finalizing and maintaining the MRTCs.

• As with the MRTCs, eHealth emphasizes that ONC and the RCE should employ a collaborative approach in working with a wide range of healthcare and industry stakeholders to develop the ARTCs. ONC’s work and consultation with RCE on the ARTCs is vital. This approach is the optimal route to ensuring the ARTCs represent, reflect and balance fairly the interests of key healthcare constituencies.

1. **Definitions (Exchange Purposes)**

All entities participating in the QHIN Exchange Network must sign an appropriate Framework Agreement (i.e., Common Agreement, Participant-QHIN Agreement, or Participant Member Agreement) and are thereby authorized to request use of core functions of the QHIN Exchange Network. The MRTCs require that all requests to send and receive EHI fall under a defined set of Exchange Purposes, with a proposed narrowing of the HIPAA
Payment and Healthcare Operations Exchange Purposes: use or disclosure for treatment, utilization review, quality assessment and improvement, business planning and development, public health, individual access services and benefits determination, each to the extent permitted under applicable law. EHI may be requested, exchanged, retained, aggregated, or used for an Exchange Purpose under Sections 2.2.1, 7.1, 8.1 below only for an Exchange Purpose of a Covered Entity or other healthcare provider that is acting in accordance with applicable law; provided, however, that this requirement shall not apply to individual access services or benefits determination. The Common Agreement will initially require exchange for only a subset of activities in Payment (Utilization Review) and Health Care Operations (Quality Assessment and Improvement, and Business Planning and Development) as defined in the HIPAA Privacy Rule.

Comments:
- eHealth Initiative requests a clarification and expansion in the MRTC Exchange Purposes by ONC to ensure that, at a minimum, care coordination is included. Overall, we caution that the proposed narrowing of Exchange Purposes could preclude the use of the TEFCA for valuable exchange occurring today. This outcome would be of great concern to our members who provide a sizable portion of the nation’s patient care.

2. Initial Application, Onboarding, Designation and Operation of QHINs

2.2.11 No EHI Outside the United States

ONC states in the TEFCA Draft 2 that with respect to activities that are subject to specific terms and conditions and the Common Agreement, no QHIN shall use or disclose any EHI outside the United States except as required by Applicable Law or as provided below.

- QHINs shall not use or disclose any EHI to any person or entity outside the United States (or allow any third party acting on its behalf to take such action) except to the extent that an Individual User requires his or her EHI to be used or disclosed outside of the United States and with explicit consent.

- QHINs may only utilize cloud-based services that are physically located within the United States. All EHI provided to a cloud services provider shall be stored physically within the United States and shall not be transferred to or located in any other countries or jurisdictions.

ONC seeks public comment on how the Common Agreement should handle potential requirements for EHI that may be used or disclosed outside the United States. Currently, the MRTCs Draft 2 does not permit QHINs to use or disclose EHI outside the United States, except to the extent that an Individual User requests his or her EHI to be used or disclosed outside of the United States. ONC requests comment on reasonable applicability of similar limitations to preserve the security and privacy of EHI sent, stored, maintained, or used by Participants and Participant Members while also preserving the rights of each Individual with respect to that EHI.

Comments:
- eHealth Initiative understands ONC’s perspectives as stated under the No EHI Outside the United States section of the MRTCs Draft 2. However, as healthcare becomes more globally provided and dispersed, eHealth Initiative encourages ONC to undertake a more forward thinking, practical approach to TEFCA policies in this area.
2. **Initial Application, Onboarding, Designation and Operation of QHINs**

2.2.2 **Permitted and Future Uses of EHI**

The MRTCs Draft 2 includes provisions that address QHIN, Participant, and Participant Member privacy and security practices in order to ensure all connections within a QHIN’s network are trusted and secure. The MRTCs Draft 2 requires that QHINs comply with the HIPAA Privacy and Security Rules as it pertains to EHI. Also, QHINs must evaluate their security program for the protection of Controlled Unclassified Information (CUI) and develop and implement an action plan to comply with the security requirements of the most recently published version of the NIST Special Publication 800-171 (Protecting Controlled Unclassified Information in Non-federal Information Systems and Organizations). Once EHI is received by a QHIN, the recipient QHIN may exchange, retain, aggregate, use, and disclose such EHI only in accordance with Applicable Law and only for specific purposes outlined in the MRTC Draft 2. The Common Agreement requires non-HIPAA entities, which elect to participate in exchange, to be bound by certain provisions that align with safeguards of the HIPAA Rules. Federal agencies that are not subject to HIPAA may elect to be a Participant or Participant Member. In these instances, such agencies would not be required to comply with the HIPAA Rules referenced in the Common Agreement. However, they must comply with all privacy and security requirements imposed by applicable federal law.

**Comments:**
- eHealth Initiative urges ONC to provide clarity regarding when non-HIPAA covered entities or business associates are subject to all HIPAA privacy and security protections. The extent of the application of HIPAA provisions to these entities is not fully evident in the MRTCs.
- eHealth Initiative commends ONC for recognizing the negative impacts of waiving non-HIPAA entities (e.g., app developers) required adherence with HIPAA Privacy and Security rules would have on participation of Individual Users.

2. **Initial Application, Onboarding, Designation and Operation of QHINs**

2.2.3 **Individual Exercise of Meaningful Choice**

Given the anticipated increased access in EHI exchange through the Common Agreement, it is critical that Individuals can understand and make informed choices about where, how, and with whom their EHI is shared. Therefore, the MRTCs require that QHINs, Participants, and Participant Members provide Individuals with the opportunity to exercise Meaningful Choice to request that their EHI not be used or disclosed via the Common Agreement, except as required by applicable law. Participants and Participant Members are responsible for communicating this Meaningful Choice to the QHIN who must then communicate the choice to all other QHINs. Participants and Participant Members are responsible for communicating this Meaningful Choice up to the QHIN who must then communicate the choice to all other QHINs. This choice must be respected on a prospective basis.

Additionally, all QHINs, Participants, and Participant Members who provide Individual Access Services must publish and make publically available a written notice describing their privacy practices regarding the access, exchange, use, and disclosure of EHI. This notice should mirror ONC’s Model Privacy Notice and include information and explanation of how an Individual can exercise their Meaningful Choice and whom they may contact for more information about the entity’s privacy practices.
Comments:
- Meaningful Choice is a multi-faceted concept that will require considerable effort from both the public and private sectors to implement effectively. Indeed, the full infrastructure to launch and sustain Meaningful Choice does not now exist. eHealth Initiative urges ONC to carefully weigh these considerations and formulate appropriate and reasonable Meaningful Choice implementation timelines.
- eHealth Initiative believes ONC must clarify the data use status and any additional authorization procedures required for relevant EHI collected or exchanged in the context of an electronic health record prior to the implementation of Meaningful Choice. These issues are not outlined in the MRTCs.
- As the Meaningful Choice concept is proposed in the MRTCs, opting out for Individuals is a global, all or nothing decision. This process does not recognize the complex realities of electronic information exchange. eHealth Initiative urges ONC to review the complexities involved in Meaningful Choice and develop a nuanced, stepwise Meaningful Choice framework, in working with the RCE and industry stakeholders in modifying and updating the MRTCs.

3. Data Quality and Minimum Necessary

3.3 Minimum Necessary Requirements

A QHIN shall satisfy the Minimum Necessary Requirements as if they applied to EHI when it Uses or Discloses EHI and when the QHIN requests EHI in the context of the Common Agreement. The Minimum Necessary Requirements shall apply to a QHIN when it requests, Uses, or Discloses EHI. Any provisions in the HIPAA Rules (e.g., 45 CFR § 164.514(d)) that include conditions shall also apply to the QHIN when Using, Disclosing or requesting EHI if such provisions are applicable.

Comments:
- eHealth Initiative is concerned that without additional guidance on how the Minimum Necessary requirement can be determined in a consistent manner; Individuals may not fully trust or understand how their information is adequately protected against unnecessary disclosures. We recommend that ONC and OCR work to develop best practice standards for determining the appropriate type of information to disclose for compliance with Minimum Necessary Requirement for the applicable Exchange Purposes.

6. Privacy Requirements

6.2 Minimum EHI Security Requirements

The MRTCs Draft 2 requires that QHINs comply with the HIPAA Privacy and Security Rules as it pertains to EHI. Also, QHINs must evaluate their security program for the protection of Controlled Unclassified Information (CUI) and develop and implement an action plan to comply with the security requirements of the most recently published version of the NIST Special Publication 800-171 (Protecting Controlled Unclassified Information in Non-federal Information Systems and Organizations). A CUI category includes EHI. This Publication provides principle guidelines to federal government-wide requirements for CUI, and entities which handle EHI are required to demonstrate the security controls and be compliant with the NIST 800-171 requirements of the most recent publication.
Comments:
- eHealth Initiative recommends that ONC assess both the viability and burden of requiring private sector organizations (QHINs) to conduct security assessments related to NIST Special Publication 800-171. ONC should also closely examine the applicability of the CUI requirements to the private sector.

QHIN Technical Framework (QTF) Draft 1 (Appendix 3)

The QTF and the Common Agreement

Comments:
- eHealth Initiative strongly supports ONC’s proposal that, in a change from TEFCA Draft 1, the Qualified Health Information Network (QHIN) Technical Framework (QTF) would be incorporated by reference in the Common Agreement (CA) and finalized by RCE.

ONC Request for Comment #6

The IHE XCA profile is content-agnostic; it enables queries for documents based on metadata about the document but not the contents of the document itself. Therefore, the XCA profile does not necessarily support more granular queries for discrete data (e.g., a request for all clinical documents about a patient that contain a specific medication or laboratory result). Comments are requested on other appropriate standards to consider for implementation to enable more discrete data queries, such as emerging IHE profiles leveraging RESTful APIs and/or use of HL7 FHIR.

Comments:
- eHealth Initiative agrees with ONC that it desirable, as soon as feasible, to add to document-based queries with the capability for more granular queries for discrete data and to support appropriate related standards for implementation in the QTF, such as emerging IHE profiles leveraging RESTful APIs and/or use of HL7 FHIR. Enabling safe, robust and immediate access to accurate targeted information at the point of care will benefit all healthcare stakeholders. Both clinicians and patients can benefit from functions that facilitate efficient location of key clinical data pieces and answer specific questions.
- As a related matter, the proposed exchange modalities emphasize copying and distributing data to multiple locations raising concerns that once data leaves the authoritative source, uncertainty can exist around the reliability of the data copies. The addition of provenance data in the USCDI can enhance both document-based and more granular queries.