



**Structural, Process and Outcomes Measures for  
Networks Enabling Exchange through the  
Trusted Exchange Framework and Common  
Agreement (TEFCA)**

**August 11th  
3:15 – 4:30 pm**

**Vaishali Patel PhD MPH  
Moderator**

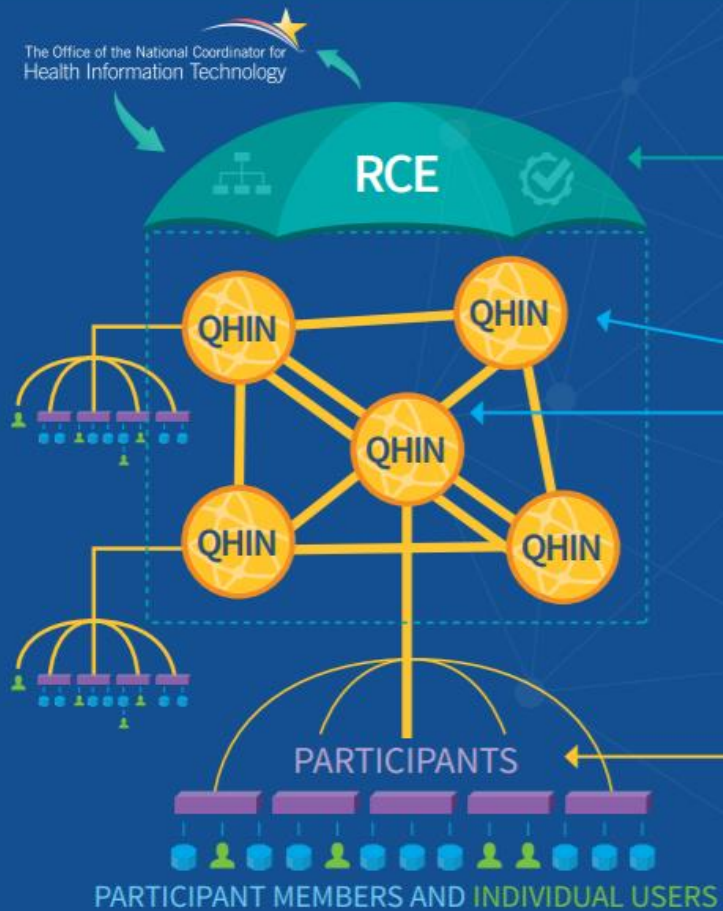
## The role of measurement in the TEFCA

- **Is the foundation to support the TEFCA in place?**
  - Measures to assess compliance with the common agreement and technical framework by QHINS and their participant members
- **Are we meeting the stated goals of the TEFCA? What are the near-term and longer-term impacts?**



# Measurement considerations

## How Will the Common Agreement Work?



RCE provides oversight and governance for QHINs.

QHINs connect directly to each other to facilitate nationwide interoperability.

Each QHIN represents a variety of Participants that they connect together, serving a wide range of Participant Members and Individual Users.

# Today's Agenda



**Dave Cassel, Executive Director, Carequality and QTF Development Lead, TEFCA RCE Team**



**Stephanie Rizk, Senior Research Analyst, RTI International & Director, Metrics Development Task, TEFCA RCE Team**



**Julia Adler-Milstein, Professor of Medicine and Director of the Center for Clinical Informatics and Improvement Research at UCSF's School of Medicine**

## Recognized Coordinating Entity (RCE) Metrics Development Overview

RCE has been tasked with developing a set of metrics to be reported on a regular basis by QHINs that assess the following:

- Compliance with the Common Agreement; and
- Process and Outcomes measures that demonstrate compliance.

Specific details related to reporting are expected to be included in Standard Operating Procedures (SOPs) incorporated by reference into the Common Agreement, allowing flexibility over time.

Metrics will be submitted for review and approval to the Office of Management and Budget (OMB) through the Paperwork Reduction Act (PRA) in February 2021.

## Measurement Domains

Measures fall into three high-level domains:

Measure Domain (Donabedian)	RCE-Specific Examples
<b>Structural</b>	TEFCA infrastructure, operational compliance
<b>Process</b>	Increased access to information to support better point-of-care decision making
<b>Outcomes</b>	Improvements in health at population level

Initial measures focus on structural measures related on mandatory compliance; additional measures related to process and outcomes are proposed as longer-term and/or voluntary.

Measures are expected to evolve over time to reflect the maturity of the TEFCA ecosystem.

# Proposed Structural Measures to Support TEFCA Compliance and Operations



## Structural Measures – Compliance and Operational Metrics for QHINs

Measures that will be tracked by RCE for each QHIN application received :

- Proposed Measure #1: Tracking Onboarding Status
  - Specification: Includes number of applications received, number of applications accepted/rejected, number of organizations that have signed the Common Agreement, completion of non-production onboarding requirements, status of production technical go-live, and number of QHINs that have achieved full live participation.
  - Purpose: Required under terms of RCE Cooperative Agreement with ONC
- Proposed Measure #2: Confirm Initial Compliance
  - Specification: Pass/Fail
  - Purpose: Required to validate initial designation as QHIN



## Structural Measures – Compliance and Operational Metrics for QHINs

Measures that will be requested on a routine basis to ensure adequate functionality within the TEFCA ecosystem:

- Proposed Measure #3: Ongoing Compliance – Policy
  - Specification: Retain right to request future proof of compliance
  - Purpose: Necessary to assure trusted exchange
- Proposed Measure #4: Ongoing Compliance – Technical
  - Specification: Re-verify technical compliance if/when substantive system changes occur
  - Purpose: Provides assurance of interoperability and compliance with RCE standards

## Structural Measures – Compliance and Operational Metrics for QHINs

- Proposed Measure #5: Ongoing Compliance – Network Performance
  - Specification: Regularly report downtime in minutes for each QHIN and average response time for each inter-QHIN message type
  - Purpose: Establish minimum expectations that QHINs should have in place to assure high performance and integrity and establish benchmarks for QHIN network to inform development of Service Level Agreements (SLAs)
- Proposed Measure #6: Ongoing Compliance – Security
  - Specification: Specific requirements to assure security under consideration (SOC 2 reports, third party accreditation, attestation / evidence of self-assessments according to a particular information security standard)
  - Purpose: Provide assurance of secure, nationwide exchange among QHINS and protect critical health IT infrastructure

## Structural Measures – Compliance and Operational Metrics for QHINs

- Proposed Measure #7: Ongoing Compliance – Flow Down Verification
  - Specification: To include reports on critical items such as patient matching, clinical content and security
  - Purpose: Provide assurance of secure nationwide exchange across TEFCA ecosystem

## Proposed Process and Outcomes Measures – Near Term (Year 1)



## Process and Outcomes Measures – Near Term

Measures proposed for mandatory reporting to the RCE *within the first year* of successful onboarding as a QHIN:

- Proposed Measure #8: Number of “**member organizations**” affiliated with QHIN
  - Specification: Report unique health care organization name, type/classification and update quarterly.
  - Purpose: Assessing participation in interoperable exchange at a national level has been difficult due to variations in definitions and reporting methods. This will improve the ability to measure the proportion of the health care system capable of benefitting from HIE transactions.
  - Benefits: Standardizing definition of “member organization” and reporting name, size and type of organization participating under each QHIN provides ability to assess gaps in coverage and track improvements over time.

## Process and Outcomes Measures – Near Term

Measures proposed for mandatory reporting to the RCE *within the first year* of successful onboarding as a QHIN:

- Proposed Measure #9: Report to RCE number of document deliveries/healthcare organization **transaction volume**
  - Specification: Number of documents delivered from one member organization to another, number of documents delivered between separate HINs via bridging gateways (inter), number of document deliveries that occur within HIN (intra), and breakdown of number of transactions by exchange purpose.
  - Purpose: More accurate measurement of transaction volume occurring at both an intra- and inter-HIN level
  - Benefits: Reporting a single measurement of clinical documentation delivered at both an intra- and inter-QHIN level, including a breakdown of transactions per exchange purpose provides more detailed and accurate understanding of baseline impact of health information exchange and growth over time.

# Proposed Process and Outcomes Measures – Mid to Long Term (Years 1-3)



## Process and Outcomes Measures – Mid to Long Term

The following measures are proposed for **voluntary** reporting to the RCE **within three years** of successful on-boarding as a QHIN:

- Proposed Measure #10: Amount of health data exchange supported by **HL7 FHIR API** conforming to nationally certified standards.
  - Specification: Provide summary breakout of the method of exchange used for each reported transaction
  - Purpose: Support faster delivery of health information for a variety of purposes
  - Benefits: Highlight the ability of the QHIN ecosystem to support measurement and growth of key interoperability requirements and regulations
- Proposed Measure #11: Number of messages delivered by QHIN participants to a **public health agency** in support of syndromic surveillance reporting.
  - Specification: Total number of eCase reporting transactions managed by QHIN intended to report notifiable disease in which receiver was a public health institution
  - Purpose: Coordination with public health; improvements in completeness of information over time
  - Benefits: Identify benefit of electronic health information exchange to support modernization of public health information infrastructure and rapid surveillance capabilities



## Process and Outcomes Measures – Mid to Long Term

- Proposed Measure #12: Percentage of **available structured data elements** that were electronically exchanged per patient.
  - Specification: Leverage movement towards USCDI to measure ability of exchange processes to send individual data elements
  - Purpose: Increase the consistency of data reliably delivered to requesting EHR system
  - Benefits: Measure the concept of the quality of data content included in a transaction
- Proposed Measure #13: Number of times a **complete and current medical record** was accessible to both a patient and provider during a clinical encounter.
  - Specification: Number of time medication reconciliation data from outside source was unavailable during encounter.
  - Purpose: Reduce unnecessary health care utilization through improved communication between providers and patient
  - Benefits: Measure the concept of usability of data being exchanged

## Process and Outcomes Measures – Mid to Long Term

- Proposed Measure #14: Percentage of closed-loop referrals where electronic health information is sent and received
  - Specification: Number of times consultation summary returned to referring provider's EHR
  - Purpose: Improvements in safety and efficiency through better care coordination between primary care and specialist providers; support for the impact of value-based care
  - Benefits: Measure the concept of impact of interoperable exchange on care coordination

## Additional Measures Under Consideration

- Number of “**connected clinicians**” affiliated with QHIN
  - Specification: Provide a total number of “end users” registered with each participating organization affiliated with QHIN. Provide NPI for each individual “end user” reported by each affiliated organization
  - Purpose: Measure the total number of physicians participating in RCE ecosystem, working towards development of a national “numerator”
  - Benefits: Foundational for establishing a proportion of participation relative to all registered physicians (“denominator”); establishes a sound baseline for other concepts like transaction volume
- Data could not be parsed or interpreted by a receiving system
  - Specification: Report on the date/time range, volume and significance of failed message delivery
  - Purpose: Show decrease in failures and missed opportunities over time as QHIN ecosystem evolves
  - Benefits: Identify areas of weakness or unexpected failure in the ecosystem



## Questions & Feedback

## Feedback Needed on Proposed Measures

### Structural Measures:

- Are there concerns about feasibility in reporting any proposed measures?
- Are there areas where the specifications should be clearer?

### Process and Outcomes (both near term and mid/long term):

- What is the estimated level of burden to report on proposed measures?
- Is it feasible to consider reporting on these concepts in the mid/long term? What are specific challenges?
- Is there value to the interoperability ecosystem in measuring proposed concepts?
- What additional specifications would help to clarify?

# Feedback on Proposed Measures

