



## Data Usability Workgroup

June 1, 2023

# Agenda

- Welcome, Introductions, Membership, Agenda - Adam Davis, MD – 10 minutes
- Workgroup Priorities & 2023 – 2024 Timeline – Bill Gregg, MD – 10 minutes
- Overview of Prioritized Future Efforts – 15 minutes
- Data Usability Taking Root – 15 minutes
- Save the Date: Sequoia Annual Member Meeting
- Workgroup Discussion & Q&A – Didi Davis, Co-chairs and Workgroup - 10 minutes



Adam Davis, MD, Co-chair  
Sutter Health



Bill Gregg, MD, Co-chair  
HCA Healthcare



Didi Davis, VP  
The Sequoia Project

# Workgroup Members

266 Organizations

378 Participants



Healthcare Providers



Public Health



Consumer/Patient



Standards Developer



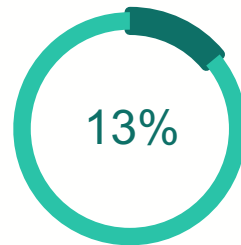
Health Plan/Payer



Federal, State, Local Government



HIN/HIEs



Other



Health IT Developers



# Sequoia Member's Shape Interoperability for the Public Good



DATAVANT



eClinicalWorks

eHealth  
Exchange

HONORHEALTH

**Epic**



East Tennessee  
Health Information Network

**EVERNORTH**



GRAPHITEHEALTH



**HCA**  
Healthcare



# Sequoia Member's Shape Interoperability for the Public Good

 HealthCatalyst

 HEALTH  
GORILLA

 HealthInfoNet

 HIGHMARK  
HEALTH

 HIMSS

 HITRUST

 smile  
DIGITAL HEALTH

 Humana

 imprado  
improvise adapt overcome

 Indiana Health  
Information Exchange

 Intermountain  
Healthcare

 JCMR  
JACKSON COMMUNITY MEDICAL RECORD

 KAISER PERMANENTE

 Kno2

 KONZA

 Lehigh Valley  
Health Network

 KlearTrust

 LYNIATE

 marble

 MatrixCare  
by ResMed

 MedAllies

 Solarity

 MEDVIRGINIA

 Midato Health

 MiHIN  
Shared Services

 ModMed  
MODERNIZING MEDICINE

 MRO  
Disclosure Management & IIC Solutions

 NCHealthConnex  
Powering Health Care Outcomes

 Netsmart

 New Jersey  
Innovation Institute  
An NJIT Corporation

 NYeC  
NEW YORK HEALTH  
COLLABORATIVE

 nextgen  
healthcare

 NORTH  
Dakota | Health Information Network  
Be Legendary<sup>SM</sup> INFORMATION TECHNOLOGY

 onerecord

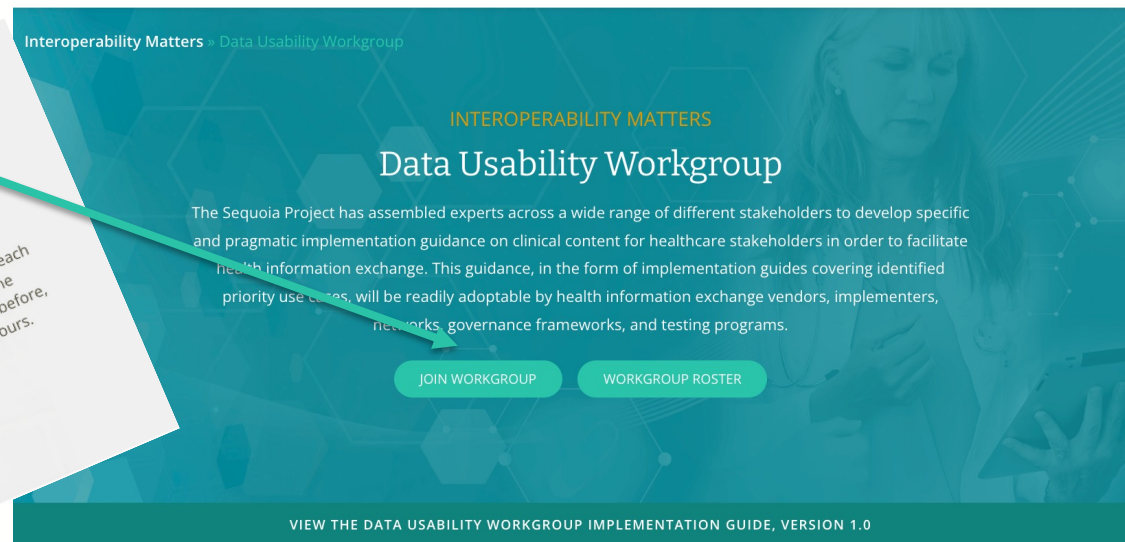
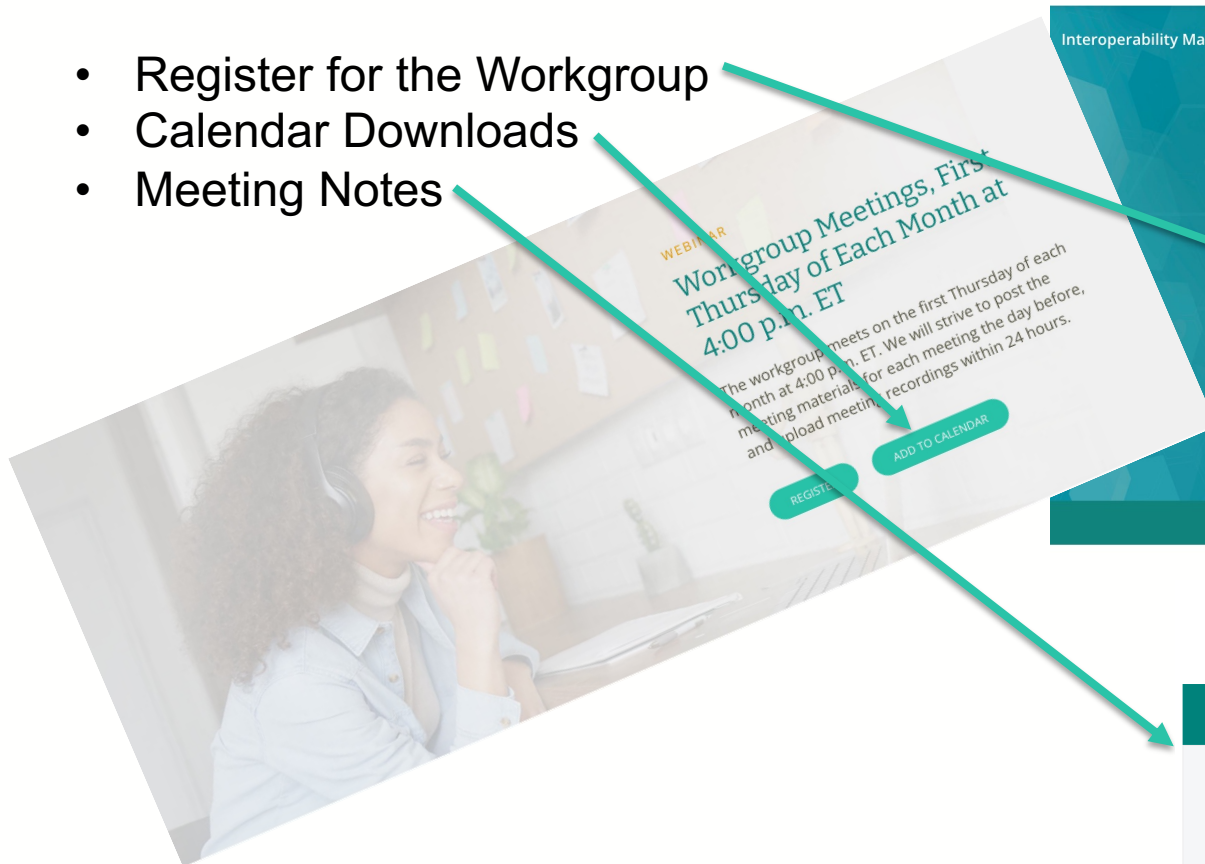
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# Sequoia Member's Shape Interoperability for the Public Good




# Website, Meeting and Workgroup Logistics

- Register for the Workgroup
- Calendar Downloads
- Meeting Notes



## Meeting Materials and Recordings

| 2023 Phase 1   | 2022 (Phase 3) | 2021 - 2022 (Phase 2) | 2020 - 2021 (Phase 1) |
|--|----------------|-----------------------|-----------------------|
| <div>▶ April 6: Meeting Notes</div> <div>▶ March 2: Meeting Notes</div> <div>▶ February 2: Meeting Notes</div> |                |                       |                       |

 <https://sequoiaproject.org/interoperability-matters/data-usability-workgroup/>  
[Interopmatters@sequoiaproject.org](mailto:Interopmatters@sequoiaproject.org)

# Interoperability Matters Data Usability Workgroup 2023 – 2024 Timeline



# Meeting Logistics and Timeline

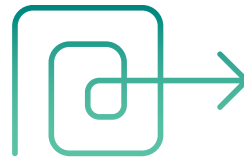
- 2023 – 2024 Planned Schedule
  - Kickoff Call: February 2, 2023
    - Ongoing calls: 1<sup>ST</sup> Thursday each month
- Next Phase of Activities - Process & Timeframe
  - Phase 1 - Administration and Prioritization
    - February 2023 – June 2023
  - Phase 2: Developing Initial Drafts
    - July 2023 – June 2024
  - Phase 3: Public Comment Period/Recommended Next Steps
    - July 2024 – August 2024
  - Phase 4: Finalizing Implementation Guide and Call to Action
    - August 2024 – December 2024

# Your priorities drive our process

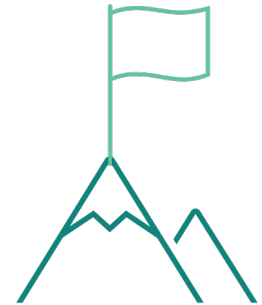
We set our course based on our members' challenges, barriers, gaps, and opportunities.



**Identify**



**Prioritize**



**Solve**

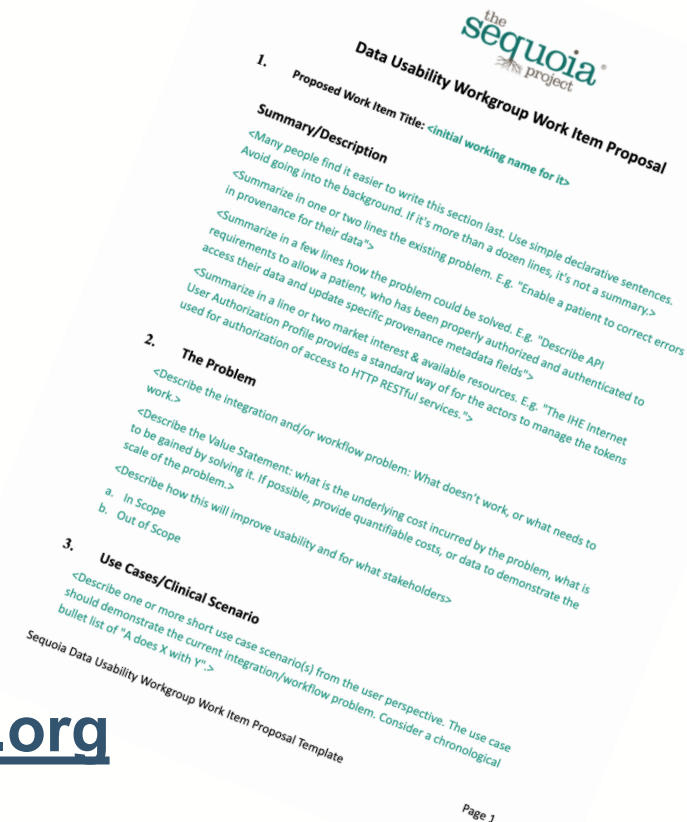
# FINAL CALL - Data Usability Workgroup Work Item Proposal

## June 16, 2023

- Summary/Description
- The Problem
- Use Cases/Clinical Scenario
- Standards and Systems
- Implementation Guide Applicability
- Risks/Key Challenges
- Open Issues/Notes/Comments
- Status

**SUBMIT to [interopmatters@sequoiaproject.org](mailto:interopmatters@sequoiaproject.org)**

[Data Usability Workgroup Work Item Proposal Template](#)



# Overview of Future Efforts for Version 2.0 of the Implementation Guide

# Data Provenance & Traceability of Changes

## Future Efforts

- [JDCWG C-CDA Whitepaper](#)
  - 1.5.1.1. As [Appendix A](#) highlights, this workgroup whitepaper deliverables **will build upon the reference to USCDI** (most current version) in this original guide to document testable guidance for future implementers.
- [Guidance for Data Provenance](#)
  - **Additional data elements and staged requirements over time**
  - Guidance beyond **HL7 C-CDA** to include **HL7 FHIR** to align with **HL7** mapping
- [Consequential Data Update](#)
  - **Likely build and add data provenance elements** to better communicate the appropriate provenance attributes to support the Who, What, When, Where, How and Why.
  - [US Realm Header - Legal Authenticator Guidance](#)
- Create guidance on **provenance for various use cases**
  - **Healthcare Entity to Consumer / Patient Access and/or remote patient monitoring sensors/devices**

# Effective Use of Codes

## Future Efforts

- Prioritized list of laboratory results to be shared
  - **Expand guidance for Laboratory Test Lifecycle:** JDCWG C-CDA Whitepaper section 2.5.1
  - **Interoperable Laboratory Results:** JDCWG C-CDA Whitepaper section 2.5.2
  - Consider transmission of **results from a Laboratory to a Public Health Agency**
  - **Investigate the differences among vendors for consumption and display of translational fields**
  - Guidance for the translation of lab result codes and nomenclature
- Guidance for codes in discrete data elements
- Guidance will **go beyond content exchanged for HL7 C-CDA to include HL7 v2.x and HL7 FHIR**
- Create guidance for various use cases: **Descriptions/codes for document/data types to filter** (i.e., Radiology Reports from Lab Data to allow indexing or filtering by date)
- **Investigate consumption and display of translation fields across vendors**
- Consider guidance on **chart correction workflows** and how to propagate data edited during chart corrections downstream

# Reducing the Impact of Duplicates

## Future Efforts

- Expand **guidance beyond Allergies, Immunizations & Problem Lists**
- List Reconciliation
  - Consider **best practice guidance for receiving systems to optimize speed reconciliation of lists**, including deduplications strategies and auto-reconciliation thresholds
  - **Expand Healthcare Entity to Consumer use case** from Documents/data imported into a system or Portal.
- Problem Oriented Health Record functional requirements are in the process of being balloted by HL7. Future versions of this implementation guide will **consider referencing guidance** once published

# Data Integrity, Format and Trust

## Future Efforts

- Data Accountability/Binding Content and Authorship
  - **Consider how to ensure content and authorship binding is intact and verifiable** when data is exchanged
- Data Integration or Data Insulation
  - **Consider best practices for how receivers import and incorporate external data into a clinical workflow** to avoid having a provider navigate among multiple user interfaces
  - **Consider guidance for remote patient monitoring sensors/devices as sources of data**
  - **Consider guidance** from AHIMA's Recommended Data Elements for Capture in the Master Patient Index (MPI)
- Data Transformation from Source
- **Temporal Parameters** - Consider additional temporal parameters to improve C-CDA
- **Consider referencing 360X Project – Closed Loop Referral IG temporal Parameters**
  - Consider additional temporal parameters to improve C-CDA
- **Consider derived work from HL7 EHR Reducing Clinician Burden Project** referenced in Proposed Data Usability Characteristics and Data Definition Consistency
- Consider how to improve data granularity in a groupable hierarchy



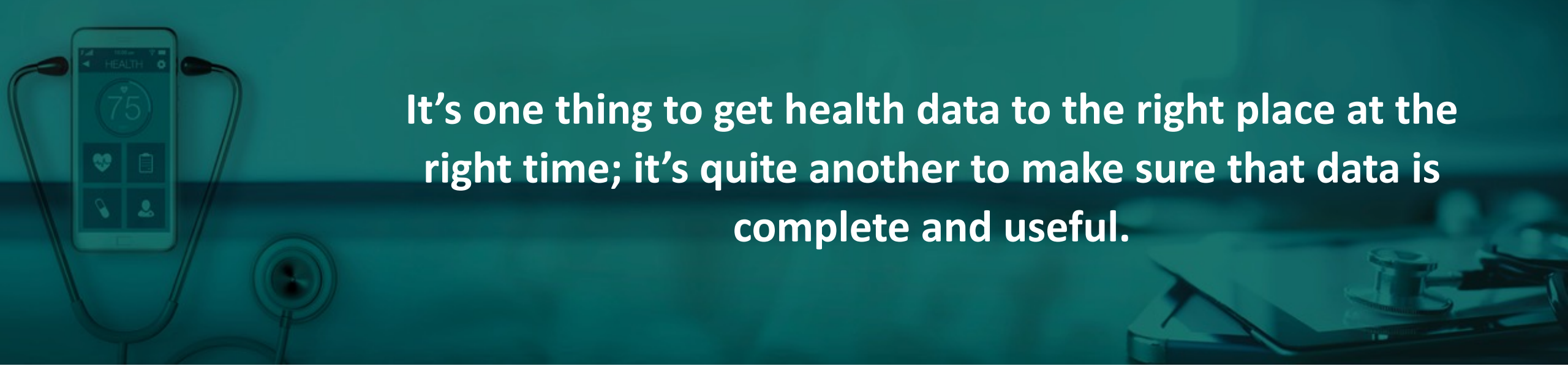
# Data Tagging / Searchability

- Data in Context – e.g., BP – Physical location, patient positioning, method, performer, author, etc. geared to FHIR exchange
- Guidance for longitudinal view – For a resilient receiver, providing robust search and filtering capabilities helps the end user to quickly find relevant
- **Receiving system filtering and search** within Received Documents
- Industry and government has an interest in an interchange system that will allow advanced algorithms to parse, search and distribute data sets and digital documents
- **Consideration for Orders and results for diagnostic Imaging**

# Effective Use of Narrative for Usability

- **Continue to help define and encourage the use of standard narrative inclusions in various exchange use cases.** Currently, there is little standardization in what is actually shared and further developing rational guidance may help consistency in the industry

# Data Usability Taking Root Initiative Introduction



It's one thing to get health data to the right place at the right time; it's quite another to make sure that data is complete and useful.

## Cross-industry Guidance for Data Usability

3 years in the making

2 years of public input

266 engaged organizations

378 subject matter experts

It's time for this guidance to **take root.**

# Why Join Our Data Usability Initiative?

## Because...

- More complete data improves outcomes.
- Better data leads to better and timely decisions.
- Usable data are more actionable
- Reduces clinician burden.
- Guidance promotes consistency across technologies.
- Practical, incremental improvements simplify implementation.
- Addresses a common challenge across all actors.
- It's the right thing to do.

# Pragmatic Guidance

V1.0 Implementation guidance on clinical content for information exchange

- provider-to-provider
- provider-to-public health
- healthcare entity-to-consumer



Guidance for  
Data Provenance &  
Traceability  
of Change



Guidance for  
Data Integrity, Format  
and Trust



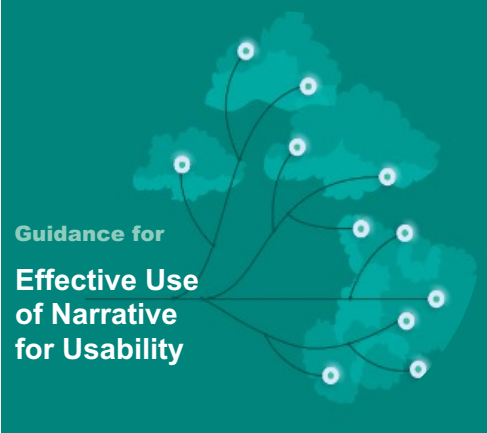
Guidance for  
Effective  
Use of Codes



Guidance for  
Data Tagging /  
Searchability



Guidance for  
Reducing  
the Impact of  
Duplicates



Guidance for  
Effective Use  
of Narrative  
for Usability



# Public Health

## The Value of Useful Data

- **Provenance & Traceability of Changes:**
  - A public health can leverage provenance to distinguish administered vaccines from a later recording of an externally sourced vaccine to identify duplicate data.
- **Effective Use of Codes:**
  - Allows patient history in the Individual Medical Management System (IMMS) or Vaccine Action Command and Coordination System (VACCS) to be exchanged consistently with codes.
  - Provides guidance for SARS-CoV-2 LOINC terms for COVID results, immunizations dose unit and lot number to improve semantic interoperability of data exchanged.
  - Makes immunization information distinct from patient or other party reports.
- **Data Tagging / Searchability:**
  - Public health organization can search data that pertains to certain criteria such as diagnosis code.
  - Enables inclusion of Clinical Notes and Document Narrative Linking.



# Provider

## The Value of Useful Data

- **Provenance & Traceability of Changes:**
  - Allows implementers to focus on consistency and presentation of provenance metadata in document sections.
- **Effective Use of Codes:**
  - Enables clinical decision support, graphing and trending of lab data.
- **Reducing the Impact of Duplicates:**
  - Known duplicates are identifiable between documents exchanged using consistent identifiers.
- **Data Integrity, Format and Trust:**
  - Improves patient matching with use of consistent patient demographics.
  - Enables a complete picture of a patient's history with use of patient summary and encounter documents to convey the complete patient story.
- **Data Tagging / Searchability:**
  - Enables a provider to search for document titles pertaining to certain criteria, i.e., diagnosis code.
- **Effective Use of Narrative for Usability:**
  - Enables consistent inclusion and linking of clinical narratives and notes with discrete data to provide mechanisms for clinicians to view and support better clinical decision making.

# Vendor

## The Value of Useful Data

- **Provenance & Traceability of Changes:**
  - Allows vendors/developers to focus on consistency and presentation of provenance metadata in document sections.
- **Effective Use of Codes:**
  - Enables clinical decision support, concept-based search, graphing and trending of lab data within platforms.
- **Reducing the Impact of Duplicates:**
  - Known duplicates are identifiable between documents exchanged using consistent identifiers within platforms.
- **Data Integrity, Format and Trust:**
  - Improves patient matching with use of consistent patient demographics for data sent and received.
  - Supports a complete picture of a patient's history with use of patient summary and encounter documents to convey the complete patient story.
- **Data Tagging / Searchability:**
  - Enables a vendor platform to search for document titles which pertain to certain criteria, i.e., diagnosis code.
- **Effective Use of Narrative for Usability:**
  - Enables vendor platforms to have consistent inclusion and linking of clinical narratives and notes with discrete data to provide mechanisms for clinicians to view and support better clinical decision making.

# Consumer

## The Value of Useful Data

- **Provenance & Traceability of Changes:**
  - Allows consumers to understand and filter on organization and date/time of data captured during their journey.
- **Effective Use of Codes:**
  - Enables clinical decision support, graphing and trending of lab data.
  - Enables patient reported vaccines to be included in immunizations shared among providers.
- **Data Integrity, Format and Trust:**
  - Enables the consumer to search and find data more easily with use of consistent patient demographics.
  - Enables the consumer to find and share their complete patient story with new providers.
- **Data Tagging / Searchability:**
  - Enables a consumer to search for data related to certain criteria, such as diagnosis code.
- **Effective Use of Narrative for Usability:**
  - Provides value to the consumer by including them in the clinical reasoning and thoughts of the authoring provider.

# HIEs and HINs

## The Value of Useful Data

- **Provenance & Traceability of Changes:**

- Allows HIEs and HINs to focus on consistency and presentation of provenance metadata in on-demand created document sections.

- **Reducing the Impact of Duplicates:**

- Known duplicates are identifiable between documents exchanged using consistent identifiers within platforms.

- **Data Integrity, Format and Trust:**

- Improves patient matching with use of consistent patient demographics for data sent and received.
- Supports a complete picture of a patient's history with use of patient summary and encounter documents to convey the complete patient story.

- **Data Tagging / Searchability:**

- Enables an HIE/HIN platforms to search for document titles which pertain to certain criteria, i.e., diagnosis code.

- **Effective Use of Narrative for Usability:**

- Enables HIE/HIN platforms to have consistent inclusion and linking of clinical narratives and notes with discrete data to provide mechanisms for clinicians to view and support better clinical decision making.

# Operational & HIM Staff

## The Value of Useful Data

- **Provenance & Traceability of Changes:**
  - Allows operational staff to leverage provenance metadata to improve data searchability and audits.
- **Effective Use of Codes:**
  - Enables clinical decision support, graphing and trending of lab data to make IT system more useful.
- **Reducing the Impact of Duplicates:**
  - Known duplicates are identifiable between documents exchanged using consistent identifiers.
- **Data Integrity, Format and Trust:**
  - Improves patient matching with use of consistent patient demographics.
  - Enables a complete picture of a patient's history with use of patient summary and encounter documents to convey the complete patient story.
- **Effective Use of Narrative for Usability:**
  - Enables consistent inclusion and linking of clinical narratives and notes with discrete data to provide mechanisms for clinicians to view and support better clinical decision making.



# American Health Information and Management Association (AHIMA)



Lauren Riplinger  
Chief Public Policy & Impact Officer

# Putting Guidance Into Practice

- **Identify where to start**

- Which V1.0 sections are priorities?
- Which can be done quickly?
- What is the timeframe?

- **Track progress**


- Potential self-reported score card promotes transparency and healthy competition
- # elements supported
- % of customers supporting

- **Incremental approach**

- Enables rollout in conjunction with other IT projects
- Elevates data usability for all IT projects - UAP

- **Other Considerations**

- Leverage for governmental programs (e.g., EHR certification, USCDI, TEFCA, etc)
- Address as part of Data Usability Round Table



Participants  
choose their own  
implementation  
pathway and  
pace...

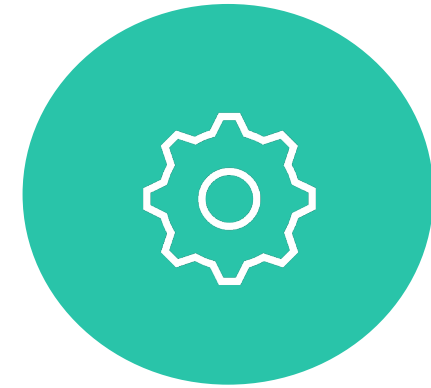
# Implementation Enablers



Technical Assistance



Community of Practice



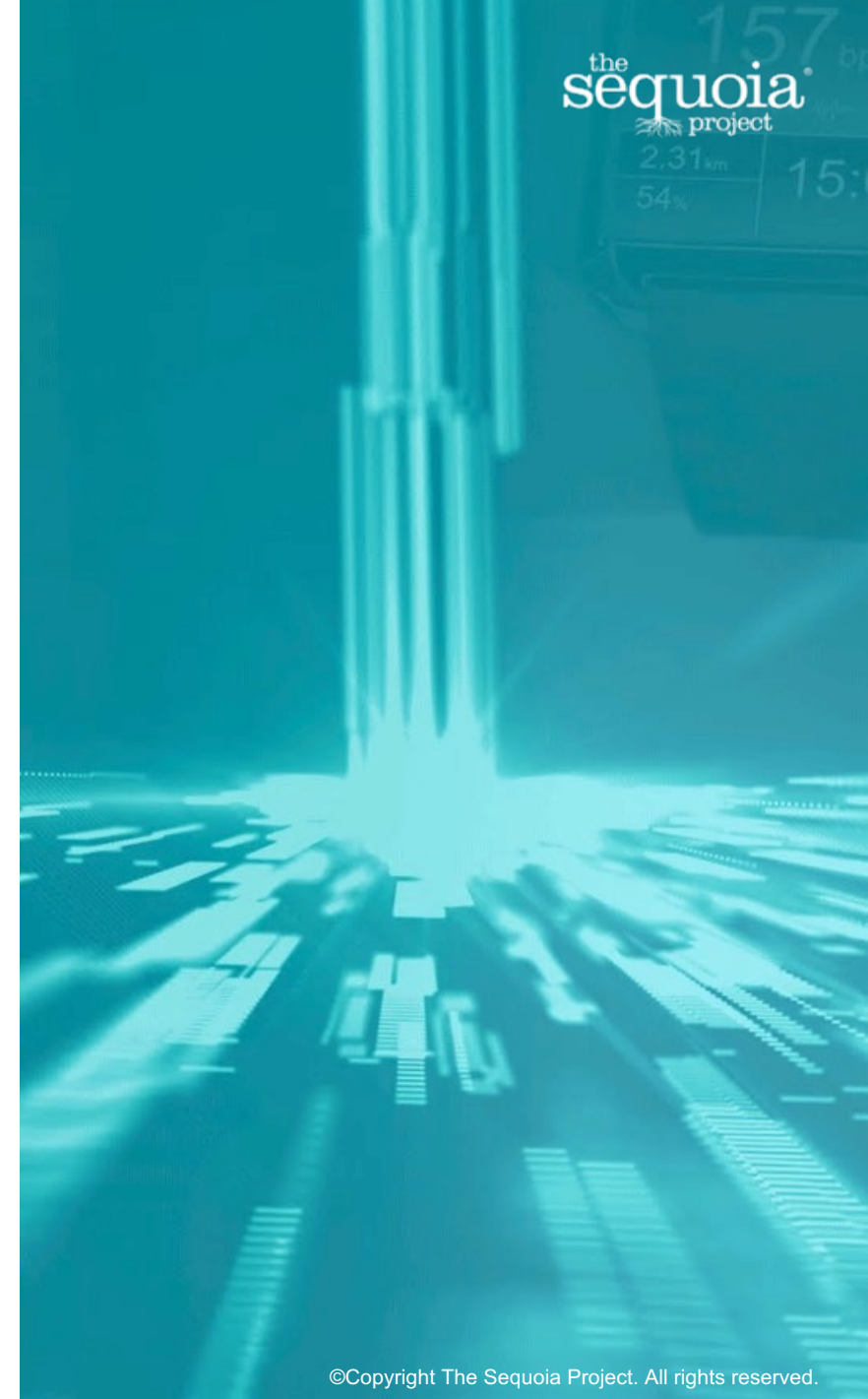
Testing Platform Services



# What makes this distinctive

**Data Usability Guidance leverages existing standards to address pain points from end users on the frontline.**

- The universal benefit of this work cannot be achieved in isolation.
- This work empowers diverse actors to affect change.
- The industry is entwined in interdependencies.
- When there is strength in numbers, momentum will accelerate.
- Collective action will solve a shared pain point.
- Those that adopt early will have first mover advantage.
- Practical focus can inform future versions of USCDI.
- Model of continuous improvement of data quality.



# Data Usability Taking Root

## Supporter

Pledges to support the data usability movement as a member of the Sequoia interoperability community and the data usability community of practice. Opportunity to participate in the Data Usability Workgroup to aid in the development V2.0 of the Data Usability Guide. Grants right to Sequoia to include logo in its Taking Root member directory. Participates in Data Usability Round Table to plan the Summit.

## Implementer

Pledges to adopt & implement V1.0 data usability guidance across one or more topics within a defined timeline. Commits their IT organization to consider implementation of guidance in a usability-in-all-projects (UAP) approach. Participates in the data usability community of practice, the Data Usability Workgroup to aid in the development V2.0 of the Data Usability Guide with representation on the Data Usability Taking Root Steering Committee of Implementers. Encourages others to join the movement. Grants right to Sequoia to include logo in its Taking Root member directory.

## Sponsor

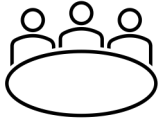
Pledges to co-sponsor the Data Usability Taking Root movement. Invests in the development of materials, toolkits, convenings, and outreach to launch and grow the movement on a national scale. Socializes and evangelizes the purpose and power of this work. Co-hosts Data Usability Summit and participates in Steering Committee.

# Levels of Engagement

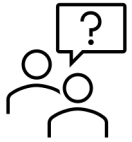
# Planned Deliverables



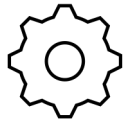
**Round Table of Early Supporters**



**Data Usability Taking Root Summit**



**Technical Assistance & Implementation Community of Practice**



**Testing Platform and Support Services**

# Roadmap

**2023**

- Early Supporters for V1
- Round Table
- Taking Root Summit

**2024**

- Expand participation; develop V2 to include FHIR
- Community of Practice
- Technical Assistance
- Implementation begins
- Movement grows

**2025**

- Community of Practice expands
- Technical Assistance expands
- Conformance Testing
- Movement grows



# Contact Us

Thank you for your interest in The Sequoia Project's new **Data Usability Taking Root** Initiative.



If you would like to get in touch you can reach us at:



**[takingroot@sequoiaproject.org](mailto:takingroot@sequoiaproject.org)**

# SAVE THE DATE: Sequoia Annual Member Meeting



SAVE THE DATE

Annual Meeting • NOV 15 - 17

2023

SAN DIEGO

California

the  
sequoia<sup>®</sup>  
project

carequality



## Data Usability Work Group

**For more information:**

[www.sequoiaproject.org/interoperability-matters/data-usability-workgroup/](http://www.sequoiaproject.org/interoperability-matters/data-usability-workgroup/)



(571) 327-3640



Interopmatters@sequoiaproject.org

Convene



Collaborate



Interoperate



**Thank You for your support of  
Interoperability Matters!**