



Data Usability
Lab Tiger Team
May 9, 2024

Agenda

- Welcome, Introductions, Membership, Agenda -- Adam/Bill 10 minutes
 - Overview of Future Efforts
- Discussions - Adam Davis, MD and Bill Gregg, MD Facilitate discussion – 45 minutes
 - Standards being Considered
 - Use Case Discussion
- Discussion – [Priority Labs Spreadsheet](#) – 5 minutes



Adam Davis, MD, Co-chair
Sutter Health



Bill Gregg, MD, Co-chair
HCA Healthcare



Didi Davis, VP
The Sequoia Project

Tiger Team Roster

66 members

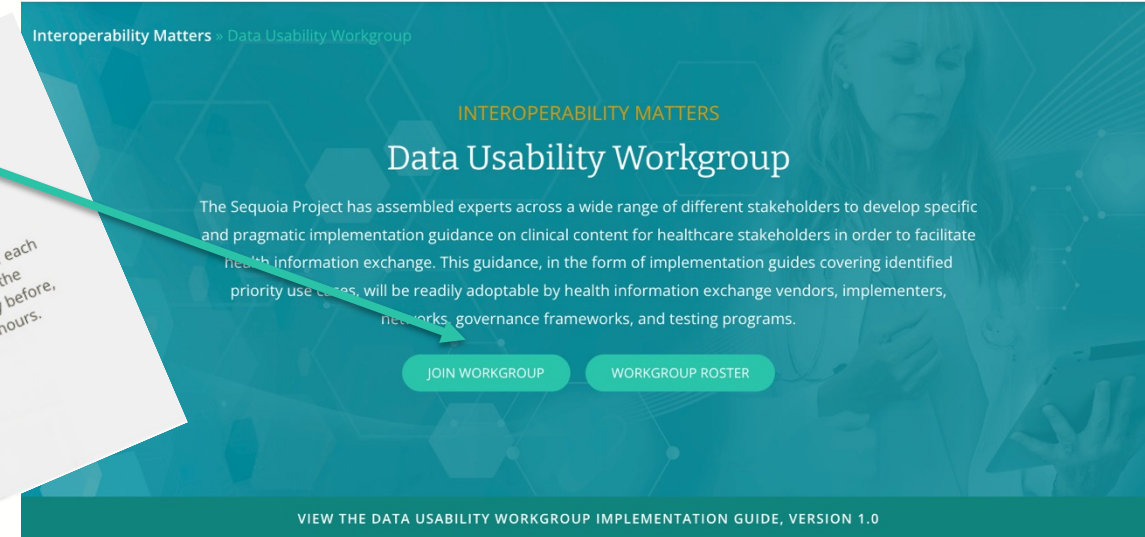
51 organizations

First Name	Last Name	Company
Maria	Moen	ADVault, Inc.
Kristine	Geis	Altera Health
Mary-Sara	Jones	Amazon
Jenna	Rychert	ARUP Laboratories
Riki	Merrick	Association of Public Health Laboratories
Maruthu Vijay	Kumar	AthenaHealth, Inc.
Reddy C	Haraneesh	AthenaHealth, Inc.
Manish	Naik	Austin Regional Clinic
Raymond	Simkus	Brookwood Family Practice
Samantha	Spencer	CAP
Will	Humphrey	CDC
Abigail	Viall	CDC
Muktha	Natrajan	CDC
Hung	Luu	Children's Health System of Texas
April	Bohbrink	Clinical Architecture
Kristin	Benware	Clinical Architecture
Stephanie	Broderick	Clinical Architecture
Carol	Ross	Clinisys, Inc.
Robert	Rae	College of American Pathologists
Scott	Stuewe	DirectTrust
Jay	Nakashima	eHealth exchange
Benjamin	Ollila	Epic
Supantha	Samanta	Epic systems corporation
Mike	Kolzet	EQTY Life Sciences
Robert	Oakley	Evernorth - Office of Interoperability
Victoria	Derbyshire	FDA
Ana	Szarfman	Food and Drug Administration
Stanley	Huff	Graphite Health
Nathan	Davis	Graphite Health
Neelam	Sharma	HCA
Hilary	Greer	HCA
Steven	Lane	Health Gorilla Inc.
Satish	Kholay	IdLink

First Name	Last Name	Company
Mary	Kratz	Interoperability Institute
Hazel	Chappell	Ishca health
Teresa	Saxon	JP Systems
CJ	Amurao	JP Systems
Sulayman	Aziz	JP Systems
Aaron	Green	Labgnostic, Inc.
Deb	Loniewski	MDHHS
Holly	Miller	MedAllies, Inc.
Desiree	Mustaquim	National Center for Injury Prevention and Control
Amy	Weinland	Nationwide Children's Hospital
Kendra	Wyatt	New Birth Company
Sara	Haddon	New York eHealth Collaborative
Andrea	Pitkus	Self
Sara	Armson	ONC
Natalee	Agassi	Oracle
Hans	Buitendijk	Oracle
Mark	Dorner	PreciseMDX
Christopher	Kellogg	Quest Diagnostics
Christopher	Harrison	Quest Diagnostics
Paul	Seville	Self
Mick	Talley	Southeast Michigan Health Information Exchange
Daniel	Wyman	Synensys
Stephen	Powell	Synensys
Alana	Keller	Synensys, LLC
M E	de Baca	Sysmex America Inc
Katherine	Lusk	Texas Health Services Authority
Baraah	Elsaadi	Texas State University
Tracy	Asibu	The University of Texas Health Science Center
Thomas	Bronken	Trinity Health
David	Rocha	UT Health Houston
Elizabeth	McElhiney	Verisma
Sandra	Mitchell	VHIE, contractor JP Systems
Aaron	Berdofe	Zus Health

Website, Meeting and Workgroup Logistics


- Register for the Workgroup
- Calendar Downloads
- Meeting Notes



Meeting Materials and Recordings

2023 - 2024 2020 - 2022

- ▶ January 4: Meeting Notes
- ▶ December 7: Meeting Notes
- ▶ November 9: Lab Tiger Team Meeting
- ▶ November 2: Meeting Notes
- ▶ October 12: Lab Tiger Team Meeting

 <https://sequoiaproject.org/interoperability-matters/data-usability-workgroup/>
Interopmatters@sequoiaproject.org

Laboratory Tiger Team Meeting Logistics and Timeline

- 2023 – 2024 Planned Schedule
 - Kickoff Call: October 12, 2023
 - Ongoing calls: 2nd Thursday each month – 4pm – 5pm ET
- Align with Next Phase of Activities of DUWG - Process & Timeframe
 - Phase 1 - Administration and Prioritization
 - February 2023 – June 2023
 - Phase 2: Developing Initial Draft Guidance
 - July 2023 – July 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

Standards & Use Case Discussion

Laboratory Use Cases

Emphasis on improving data quality – for direct clinical use, feeding AI/ML, Clinical Trials, RWD/RWE, Research, etc.

1. Reference lab (or internal hospital lab) currently sharing data electronically to EHRs (sending system)reference lab already sends via HL7, but maybe not fully compliant
2. Establish best practices for receiving EHR or portal systems to display data from lab information systems AND minimum for sharing data via CCDA/FHIR
 - Note: these are not used by LIS/lab systems, but EHR to EHR sharing and HIEs, etc
3. Proposed target for discrete labs, e.g. chemistries, CBC, etc.
 - Start with a minimum set of labs (e.g. CBC and BMP) for compliance but ultimate goal is compliance for full discrete labs
 - Development of recommended value sets for grouping labs (target VSAC and lab standards bodies) – this is something that providers should be able to access and NOT reinvent themselves

Laboratory Pain Point - Use Case - Standards Tracking

7. Laboratory Results Interoperability

Problem Statement

The current state of lab results interoperability across the health care community is poor. The lack of this interoperability affects the ability for clinicians to provide safe, high-quality, low-cost care. A broad community of clinical experts and stakeholders developed a preliminary list of lab results that are most valuable for care management, clinical decision support and quality measures across the care continuum. Thus, their providence and mapping for interoperability should be a high priority focus with their use across information systems to preserve clinical intent and meaning and prevent patient safety and data quality issues.

There are initiatives such as SHIELD, working on national laboratory interoperability needs. Meanwhile, health systems and vendors can work with their partners providing or exchanging laboratory data to help ensure the following steps are taken to improve interoperability of laboratory data. Ensure laboratory data are:

1. **Electronic.** Paper doesn't cut it anymore.
2. **Discrete.** PDF and text blobs are physician readable, but not very computer readable and usable.
3. **Encoded.** Laboratory orders and results SHALL be LOINC encoded, while specimen types, sources, qualitative result values, and organisms SHOULD be SNOMED CT encoded. Encoding helps facilitate computer usability and semantic meaning.
4. **Message.** Typically, the performing laboratory (and laboratory community) exchanges laboratory data in various HL7 v2.x messaging formats. LIS/LIMS do not currently have FHIR functionality for daily reporting needs and in CLIA compliant format. Although HL7 FHIR is utilized for laboratory data in downstream systems and apps, many may not be complete with all laboratory data elements needed for the complete meaning of a test such as specimen, test name, etc. FHIR users may wish to proceed with caution and clinically validate applications with laboratory data to ensure they are complete and clinically accurate.
5. **Maintained.** Whether it is a new test like COVID introduced for clinical use or updates in code systems or messaging standards, all systems should be maintained. When one information system uses newer codes and downstream systems do not, errors may occur and interoperability is impeded, and clinical meaning lost.

- Google Document used for tracking
 - Anyone with the link can comment within the document
- Will be place for go-forward work
- Use Case will be included for Receiving System Guidance

Standards being Considered

- Require HL7 2.5.1 as the floor going forward – update from 2.x
- USCDI V3 (Tests, Values/Results, Specimen Type, Result Status)
- USCDI+ [\(Public Health Laboratory Data Exchange\)](#)
- HL7 Version 2 Laboratory Value Set Companion Guide, Release 2 – US Realm
- HL7 Version 2.5.1 Laboratory Orders Interface (LOI)
- HL7 Version 2.5.1 Laboratory Test Compendium Framework (eDOS) aka Electronic Directory of Service
- HL7 Version 2.5.1 Laboratory Orders Interface (LRI)
- HL7 Version 2.5.1 Electronic Lab Reporting (ELR) to Public Health
 - CDC How to Implement ELR

Discussion: Priority Labs Spreadsheet

Data Usability Work Group

For more information:

www.sequoiaproject.org/interoperability-matters/data-usability-workgroup/



(571) 327-3640



Interopmatters@sequoiaproject.org

Convene



Collaborate



Interoperate



**Thank You for your support of
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