



Discovery Session

Patient Matching – Multiple Organization | A Town Hall

July 27, 2026 | 4:00 p.m. ET

Agenda

- Measurement & Improvement Overview
- Background
- Measures & Tests
- Questions & Answers Forum
- Reminder for Community Comments





Today's Presenters

- **Kevin Snow**, Chief Architect, InductiveHealth
- **Damon Ferlazzo**, Senior Technical Analyst, AIRA
- **Eric Larson**, Senior Technical Project Manager, AIRA



Measurement & Improvement Overview

Kevin Snow, MACAW co-chair



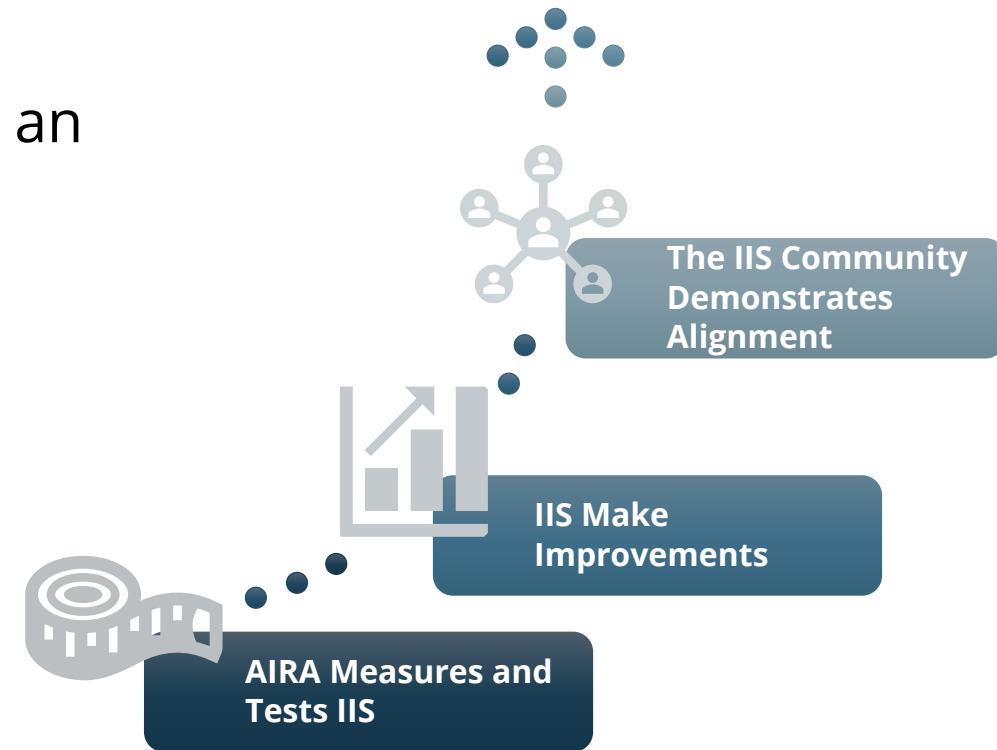
Measurement and Improvement Initiative (M&I) – Overview

M&I began in 2015 in collaboration with CDC as an effort to:

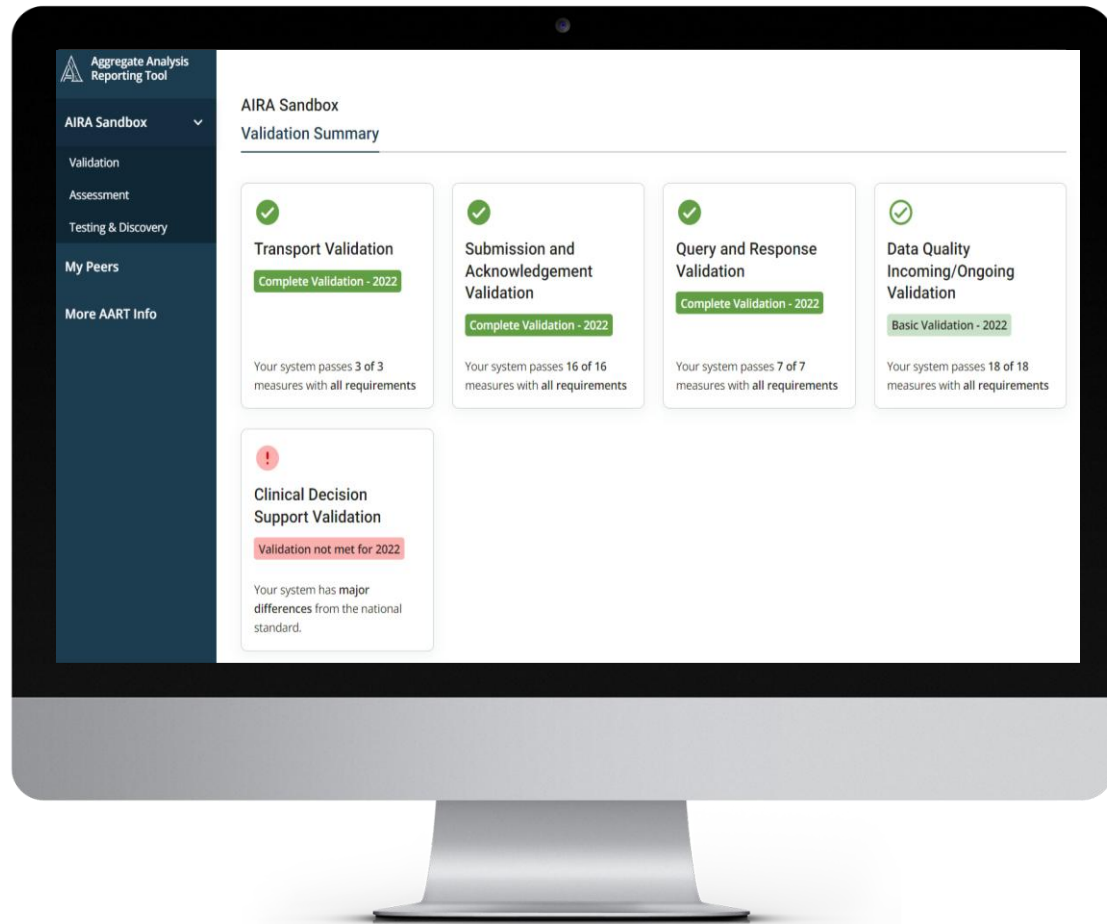
- Test IIS alignment with standards
- Provide IIS with info and assistance to improve

All testing is conducted by AIRA through:

- Connecting with pre-production systems
- Analyzing deidentified data
- Sharing results via the Aggregate Analysis Reporting Tool (AART)



The AART Dashboard – Your Gateway To Data

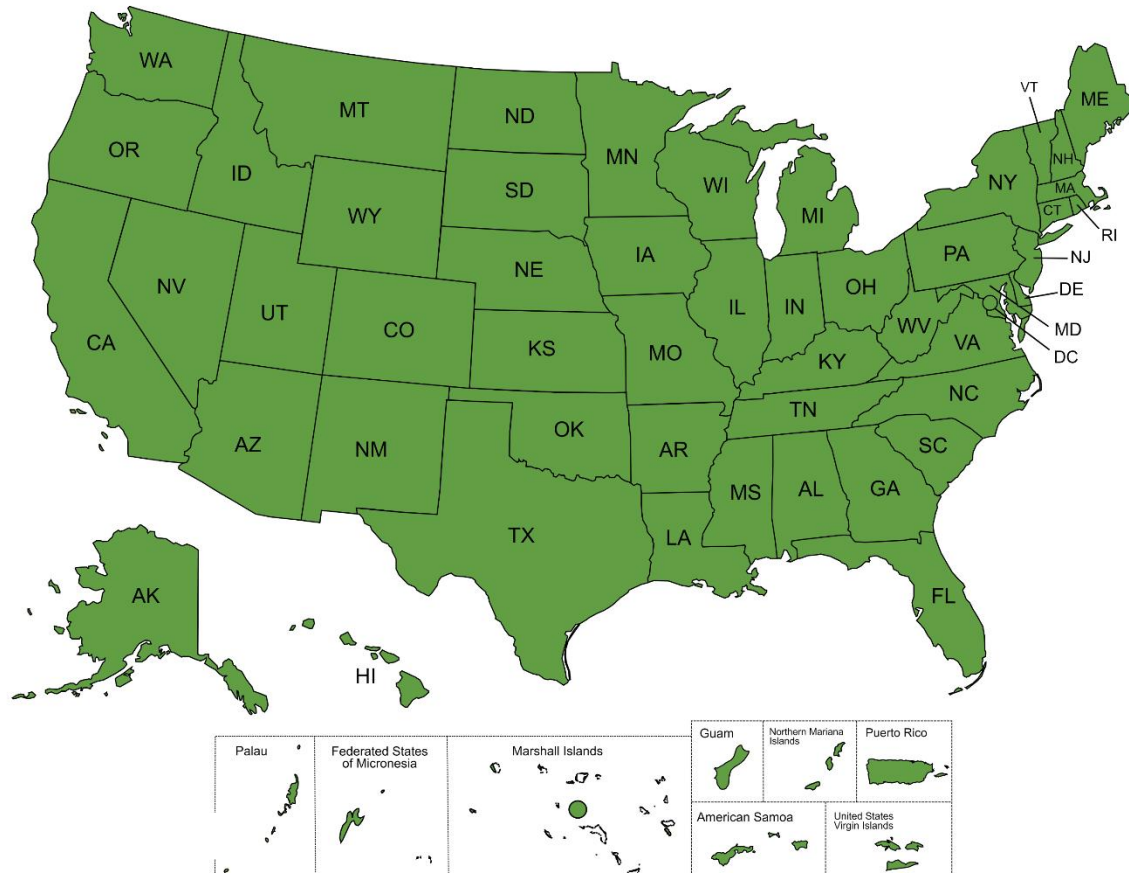


Click to drill down to:

- Measure results and information
- Test case outcomes – expected and actual
- Historical perspectives
- Results from your peers who have shared their data and information



IIS Engagement In Voluntary Measurement



Community-wide participation is strong



Improvements in standardization across IIS are broadly recognized



61 out of 61 jurisdictions measured in the last 12 months



Who Supports The M&I Process Along With AIRA?

MACAW

The Measurement for Assessment and Certification Advisory Workgroup includes IIS, Immunization Program Managers, IIS Vendors, and Federal Partners

MACAW

CDC

CDC

Centers for Disease Control and Prevention are our funders, supporters, and collaborators

M&I

RESULTS

NIST

National Institute of Standards and Technology, who collaborate with AIRA to develop tooling to support measurement

NIST

IIS/Imms

IIS, Imms Programs, Tech Partners

IIS and Imms Programs analyze, plan, and implement systems. IIS tech partners support IIS and Imms Programs in planning and implementation



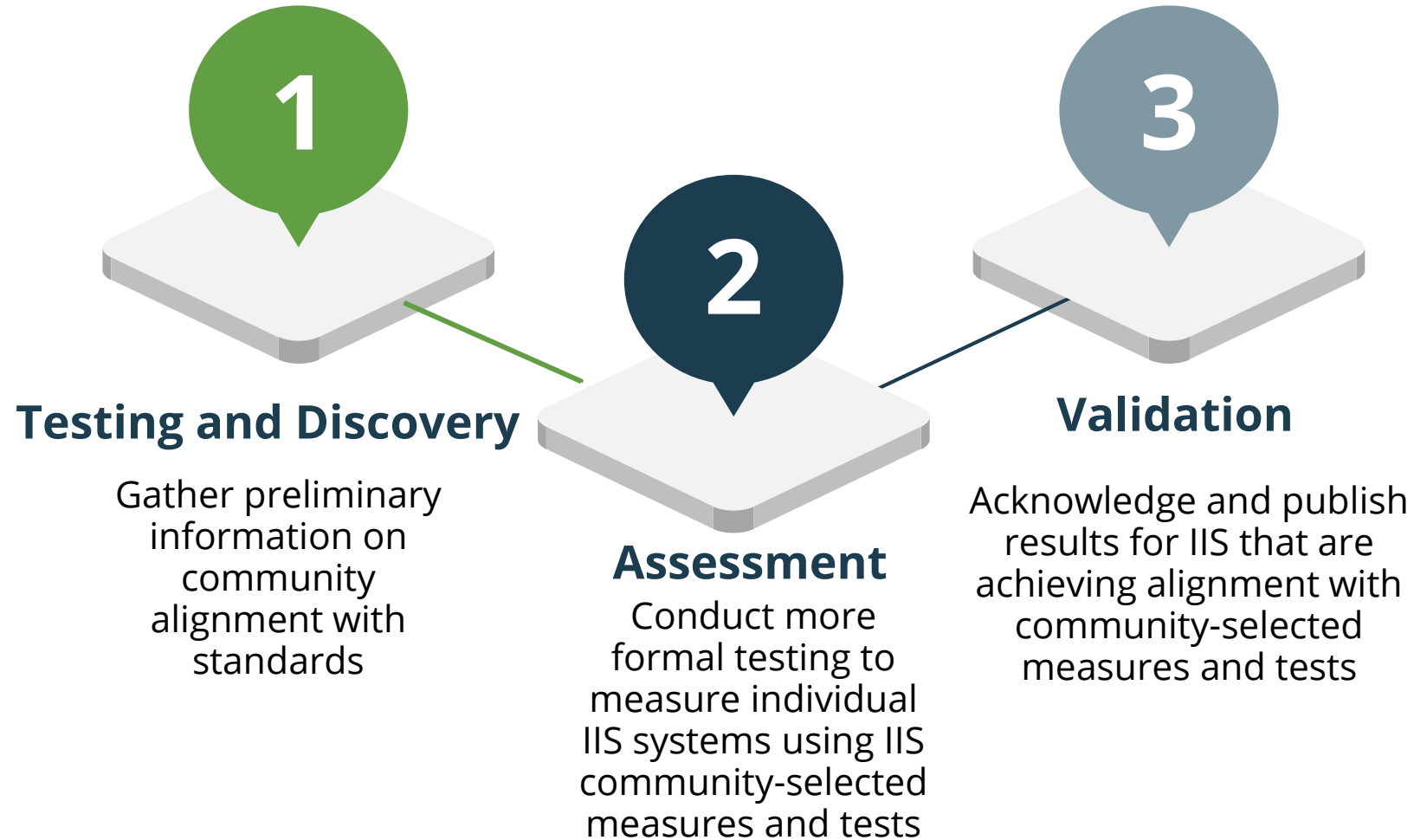
MACAW Members

Representing the Community Voice

- **Kevin Snow**, Envision (Co-Chair)
- **Valentin Sostaric**, AZ (Co-Chair)
- **Aaron Bieringer**, MN
- **Alejandria Arias**, CT
- **Dave McCormick**, IN
- **Elise Balzer**, Indian Health Svc.
- **Josh Hull**, KL&A
- **Kevin Allen**, TX
- **LaTreace Harris**, CDC
- **Lauren Shaw**, CDC
- **Janet Fath**, CDC
- **Rob Snelick**, NIST
- **Scott Benedict**, Gainwell
- **Shannon Coleman**, STChealth
- **Nathan Padgett**, KY
- **Tina Lai**, NYC



M&I Stages



M&I Measures Development and Approval Process

Measures Created

MACAW Prioritizes,
Discusses and
Develops Measures

1

Measures Shared

Measures are Shared
with IIS Community
for Review and Input

2

Measures Refined, Updated

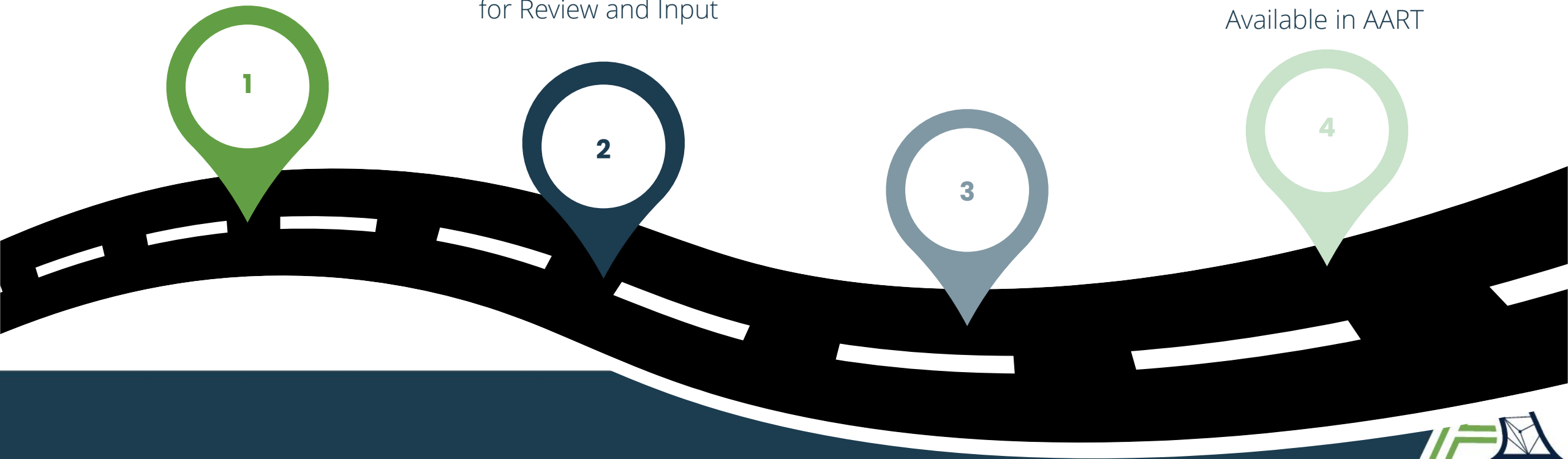
Comments are
Compiled & Measures
Updated

3

Measures Implemented

Testing Occurs and
Results are
Available in AART

4



Content Areas
Measurable Concepts

	Pre-Measurement	Testing & Discovery	Assessment	Validation
Transport	☒	☒	☒	
Submission/Acknowledgment	☒	☒	☒	
Query/Response	☒	☒	☒	
Clinical Decision Support	☒	☒	☒	
Data Quality Incoming/Ongoing	☒	☒	☒	
Data at Rest	☒	☒	☒	2027
Patient Matching – HL7	☒	☒	☒	
Provider Participation	☒	☒		
Onboarding	☒			
Patient Matching – Extract	☒			
Patient Saturation	☒			
Security	☒			
Vaccine Matching	☒			
Vaccine Saturation	☒			



Patient Matching Multiple Organizations: Timeline

Measures Created

MACAW Prioritizes,
Discusses and
Develops Measures

**2019 –
Present**

Measures Shared

Measures are Shared
with IIS Community
for Review and Input

**Jul–Aug
2026**

Measures Refined, Updated

Comments are
Compiled & Measures
Updated

**Sept
2026**

Measures Implemented

Testing Occurs and
Results are
Available in AART

2027



Unified Patient Matching – HL7 Measures & Tests

Damon Ferlazzo, AIRA

Eric Larson, AIRA

Document Foundations

Single Organization Patient Matching – HL7
Clinical Decision Support (as inspiration)

+ **Multiple Organization Patient Matching – HL7**

Unified Patient Matching – HL7 Measures & Tests



Content Area Alternatives

1. Stay the course four reports 211 measures
2. Comprehensive report summarizing all measures with drill down



Vs



12 Measures

Single (Intra) Org

- **Submission**

- 1) Patient Names
- 2) Patient Contact Fields
- 3) Other Demographics

- **Query**

- 4) Patient Names
- 5) Patient Contact Fields
- 6) Other Demographics

Multiple (Cross) Org

- **Submission**

- 7) Patient Names
- 8) Patient Contact Fields
- 9) Other Demographics

- **Query**

- 10) Patient Names
- 11) Patient Contact Fields
- 12) Other Demographics



Measure Field Groupings

- Patient Names – first, middle, last, suffix
- Contacts – address, city, state, ZIP code, phone number, email address
- Other Demographics – date of birth, gender, mother's maiden name, medical record number



Submission v. Query Measures

Submission

Occurs when a record is **sent to the IIS**.

- The IIS attempts to match an incoming record with an existing record for the purpose of updating the patient record.
- A patient merge to an existing IIS patient is possible.

Query

Occurs when a request is made to **retrieve a record from the IIS**.

- The IIS attempts to find an existing record so that it can release that record for use.
- There is no possibility of a merge with an existing IIS patient.



Single v. Multiple Organizations Measures

Single (Intra) Organization

Simulates a returning patient updating their info.

- E.g., Patient changes last name
- Sending provider identical
- MRNs are the same

Multiple (Cross) Organization

Simulates a patient going to two different providers

- E.g., Patient shortens their name at pharmacy
- Sending providers differ
- MRNs differ



Test Groups

- Measures are made of hundreds of individual test groups
- Test groups are made of a sequence of four HL7 v2.5.1 messages
- Test Group Names
 - <Field of interest> - < Scenario > - < Demographic Level> - < Single (S) v. Multiple (M) Organizations > - <Test Variation Number>
- Example: FINM-ABEG-X-M-001
 - First Name, Alternative Beginnings, Maximum Demographics, Multiple Organizations, First Variation



Test Groups

Minimum v. Maximum Demographics

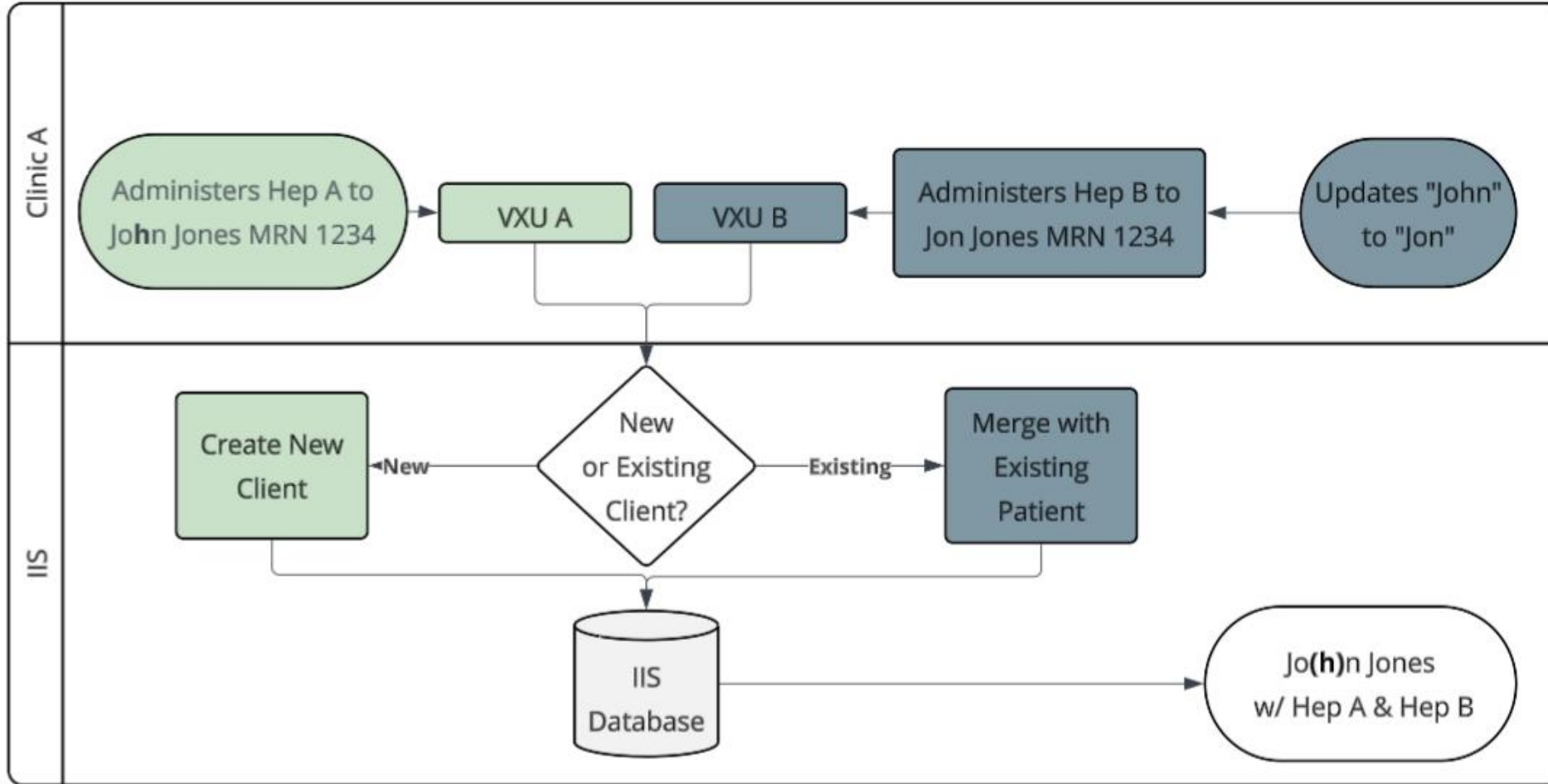
- Minimum
 - First name, last name, MRN, date of birth, gender, and address
- Maximum
 - Minimum + middle name, mother's maiden name, race, ethnicity, phone, email, and responsible person (NK1 segment)



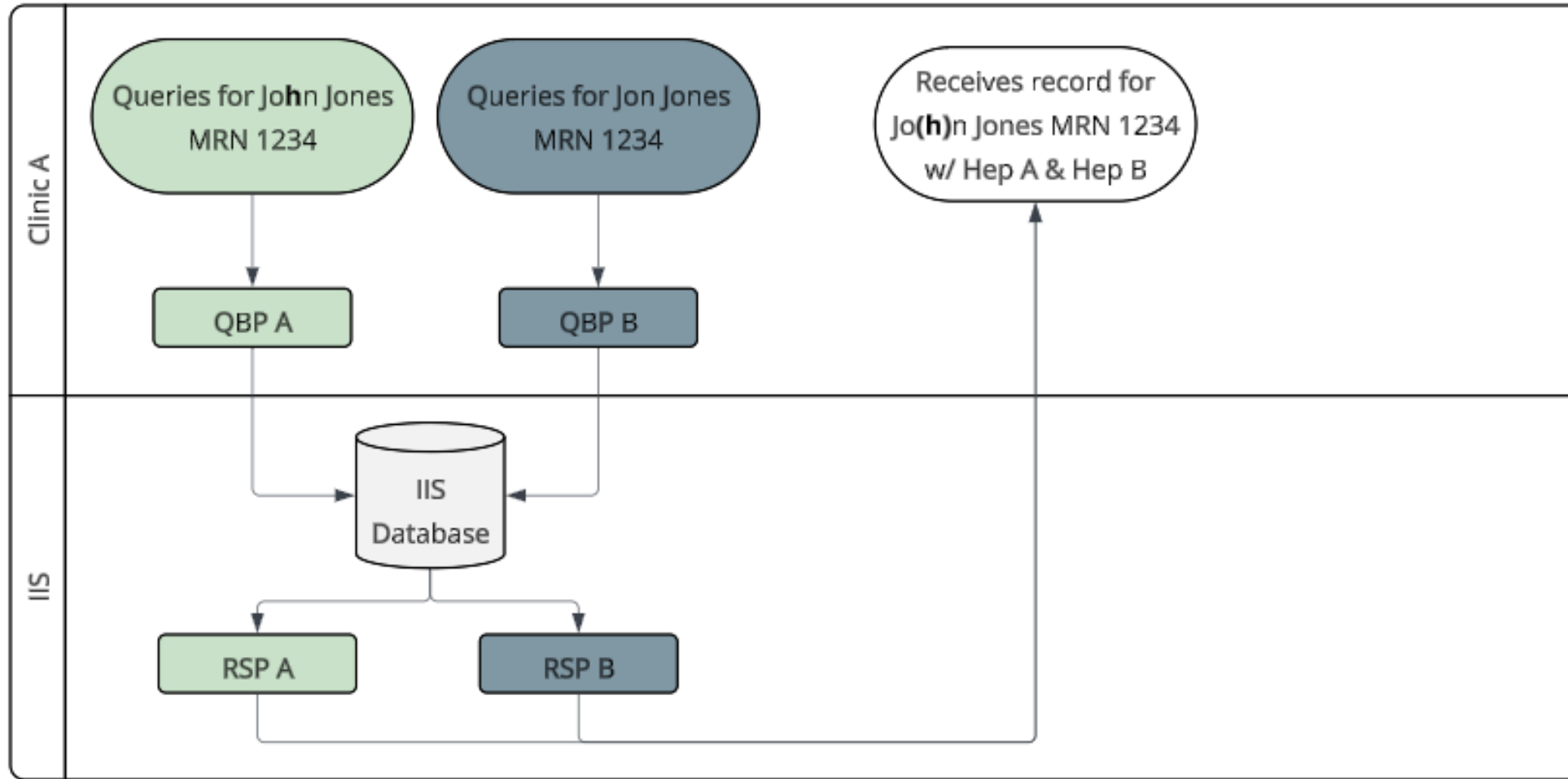
Message Sequencing



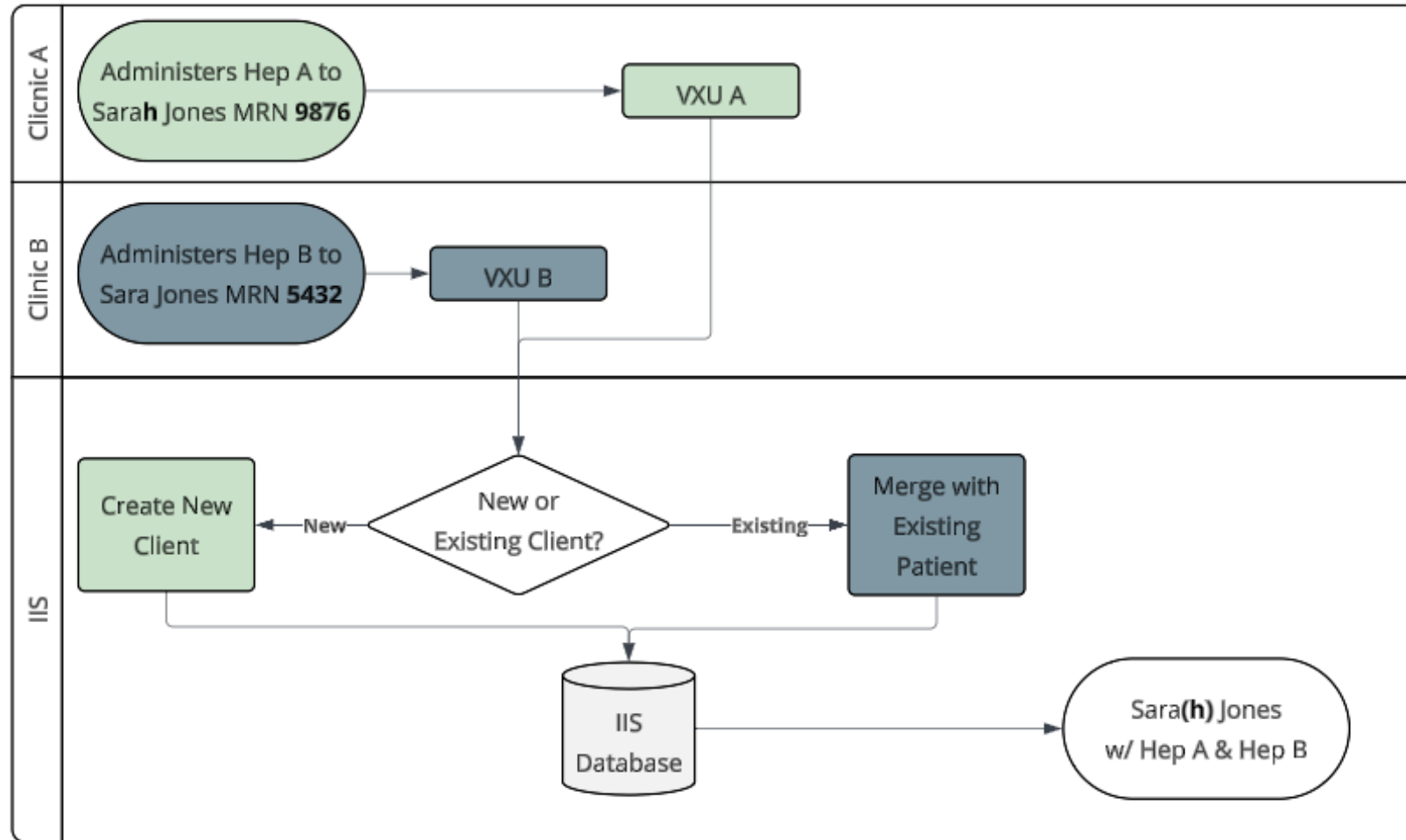
Single Organization - Submission



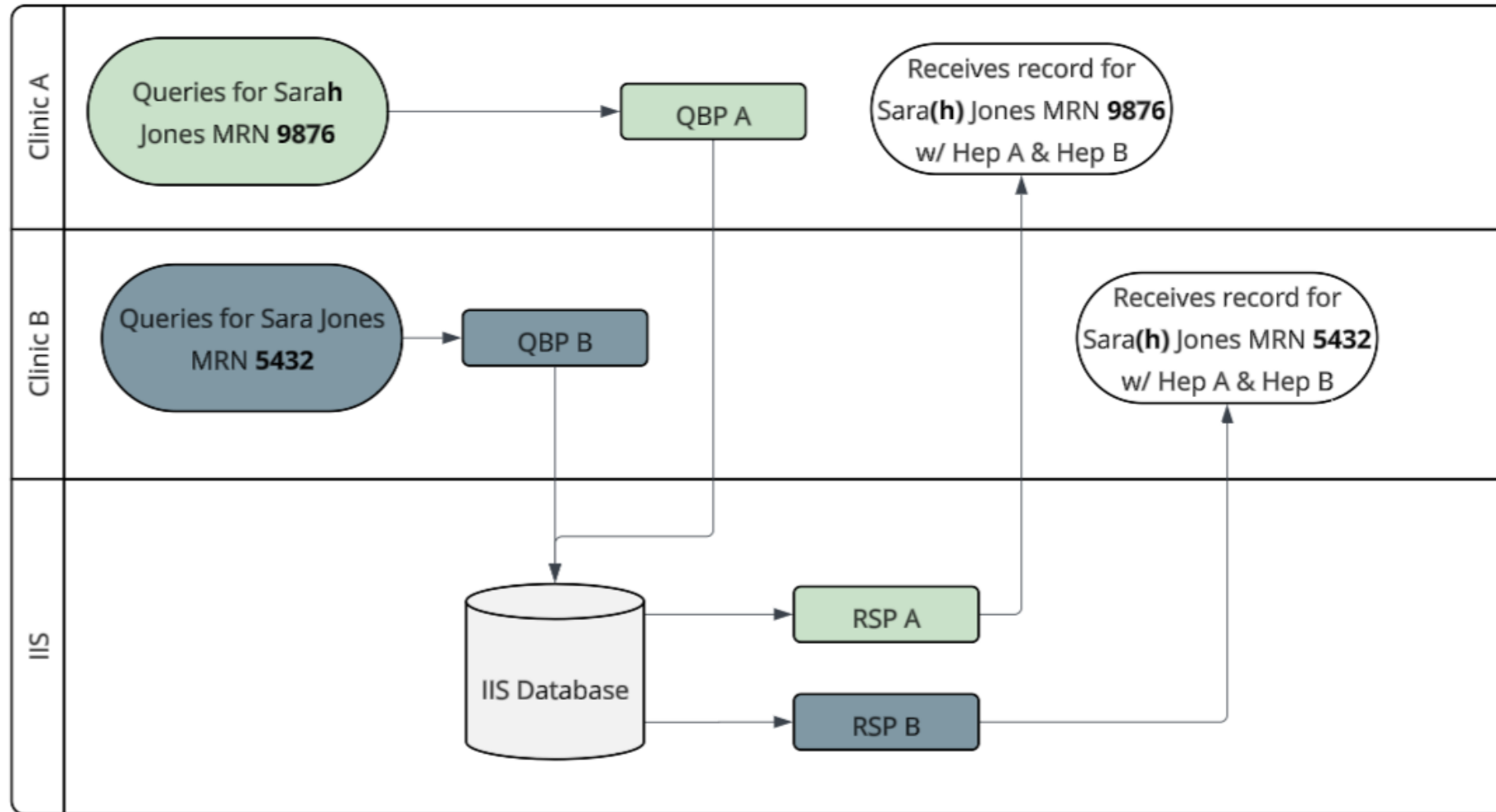
Single Organization - Query



Multiple Organization - Submission



Multiple Organization - Query



Measuring Patient Matching



12 Measures

Single (Intra) Org

- **Submission**

- 1) Patient Names
- 2) Patient Contact Fields
- 3) Other Demographics

- **Query**

- 4) Patient Names
- 5) Patient Contact Fields
- 6) Other Demographics

Multiple (Cross) Org

- **Submission**

- 7) Patient Names
- 8) Patient Contact Fields
- 9) Other Demographics

- **Query**

- 10) Patient Names
- 11) Patient Contact Fields
- 12) Other Demographics



Measure Outcome

The Measure Outcome for each measure is based on the percentage of test cases passed

Meets: $\geq 90\%$

Deviates: $\geq 80\%$ AND $< 90\%$

Does Not Meet: $< 80\%$



Degree of Alignment Score Continued

- The IIS will drop one Measure Outcome Level (e.g., from Meets to Deviates) if any individual test group has a degree of alignment below 65%, provided at least 10 test cases exist within the test group.

Example

- The IIS scores 89% (Deviates) on Measure 2
- However, within measure 2, the IIS scores below 65% on phone number test group
- Result: Measure 2 drops from Deviates to Does Not Meet to highlight the phone number gap.



Early Draft of Interactive Report Card

CONCEPT	SUBMISSION OR QUERY	RESULT	PASSED	FIRST	LAST	MIDDLE	SUFFIX	ADDRESS	STREET	CITY	ZIP	EMAIL	PHONE	DOB	GENDER
Single Org	Submission - Name Fields	Meets	92%	✓	✓	✓	✓								
Single Org	Submission - Contact Fields	Does Not Meet	89%					✓	✓	✓	✓	✓	✗		
Single Org	Submission - Other Fields	Deviates	90%											✓	✗
Single Org	Query - Name Fields	Does Not Meet	85%	✓	✓	✗	✓								
Single Org	Query - Contact Fields	Does Not Meet	87%					✗	✓	✓	✓	✓	✗		
Single Org	Query - Other Fields	Does Not Meet	89%											✓	✗
Multiple Org	Submission - Name Fields	Does Not Meet	82%	✗	✓	✓	✓								
Multiple Org	Submission - Contact Fields	Does Not Meet	76%					✗	✗	✓	✓	✓	✗		
Multiple Org	Submission - Other Fields	Does Not Meet	74%											✗	✗
Multiple Org	Query - Name Fields	Does Not Meet	76%	✗	✓	✗	✓								
Multiple Org	Query - Contact Fields	Does Not Meet	76%					✗	✗	✓	✓	✓	✗		
Multiple Org	Query - Other Fields	Does Not Meet	74%											✗	✗



Next Steps



Community Review and Comments

- Please review our Measures and Test Document for Patient Matching at:

- <https://repository.immregistries.org/resource/iis-assessment-measures-and-tests-document-patient-matching-multi-organizations/>

- Comments accepted through August 14, 2026

- Send to dferlazzo@immregistries.org

- All comments will receive responses



Questions or need additional information? Please contact:

Damon Ferlazzo: dferlazzo@immregistries.org

Eric Larson: elarson@immregistries.org

Kevin Snow: ksnow@envisiontechnology.com

Thank you to our presenters,
and thanks to all of you for
joining us!

Please complete a brief evaluation survey