



# WELCOME

#AIRA2024



# Patient Matching in IIS

Leveraging the DAR-Like Method  
for Enhanced Data Quality

# Agenda

- How to improve patient matching
  - Quality improvement framework
- Overview of tools
  - Methodology
  - Potential outputs
- Join Data at Rest (DAR)!

# What is patient matching?

The identification and linking of one patient's data within and across health systems to obtain a comprehensive view of that patient's health care record.

# Improve Patient Matching

- How do you ensure you have perfect patient matching?

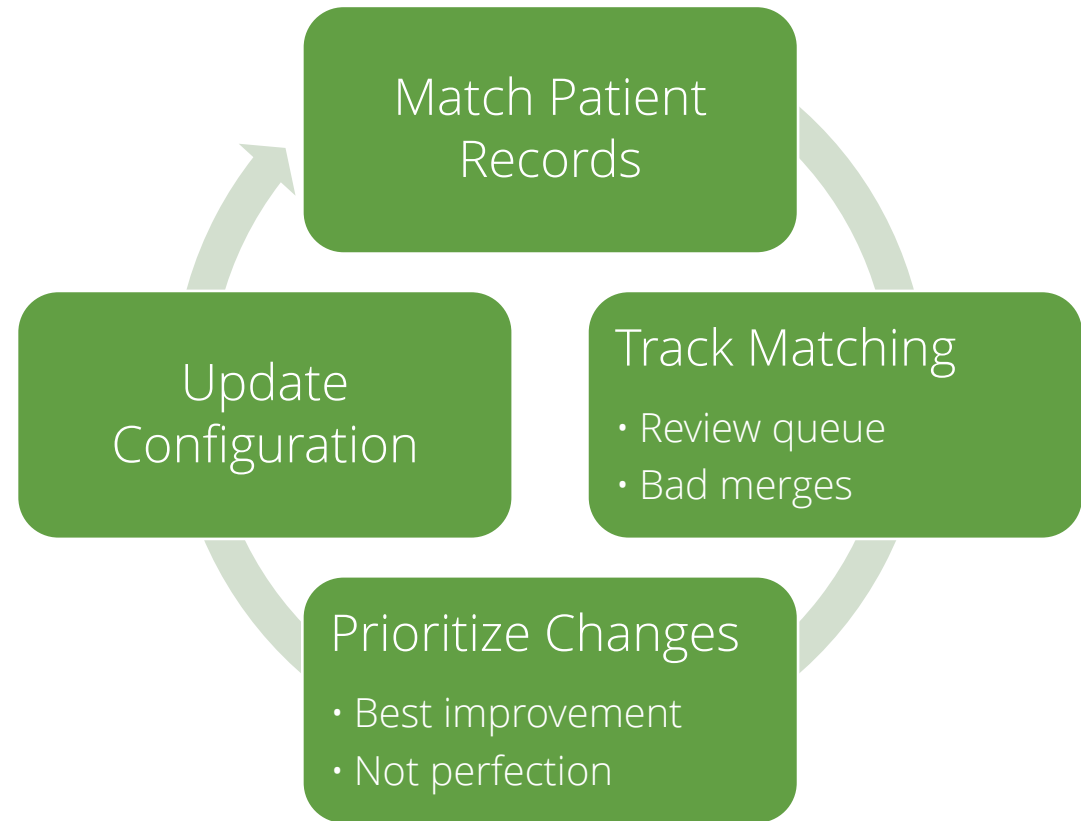
# Improve Patient Matching


- How can we continually improve?



# Improve Patient Matching

- How can we continually improve?
  - Implement a quality improvement process.

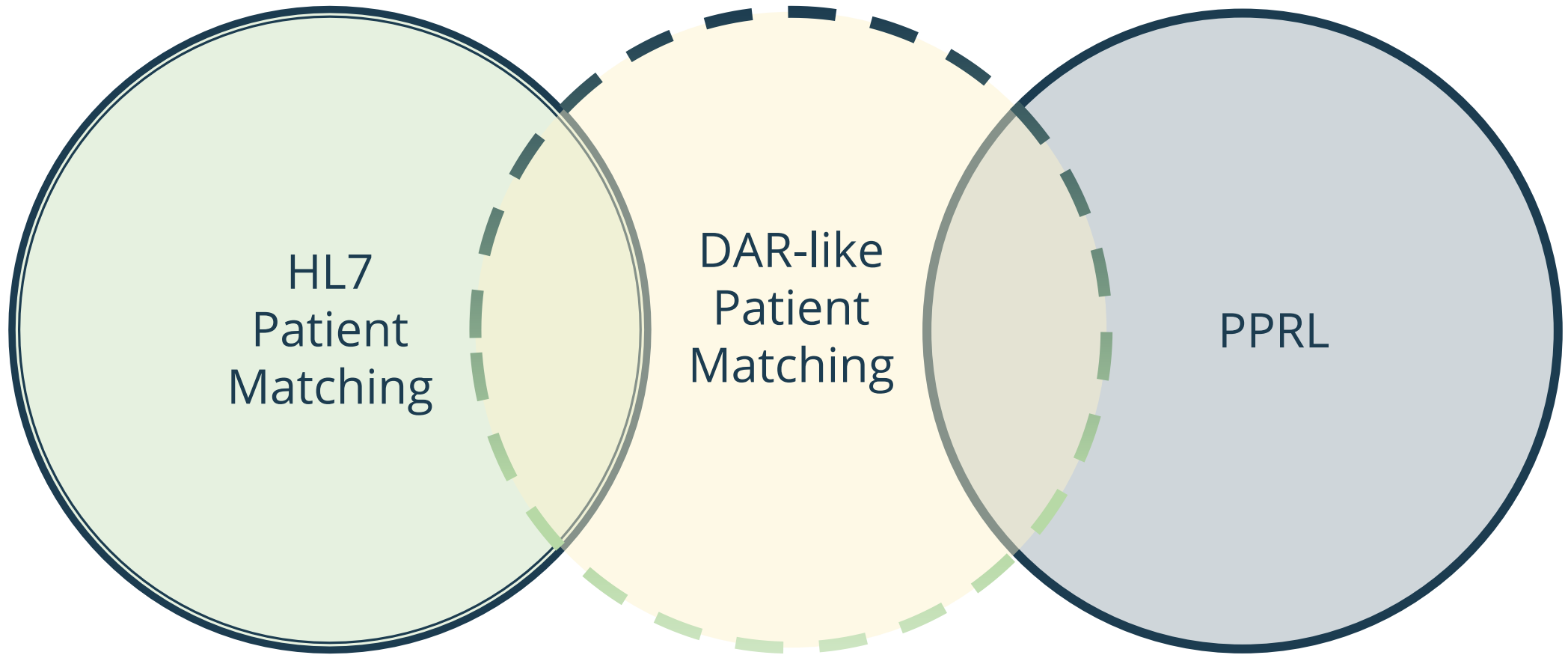


	Pre-Measurement	Testing & Discovery	Assessment	Validation
Transport Submission/Acknowledgment Query/Response	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Clinical Decision Support				
Data Quality Inc./Ongoing				
Data at Rest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Patient Matching	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2025	
HL7 Method	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
DAR-like Method	<input checked="" type="checkbox"/>	2025		

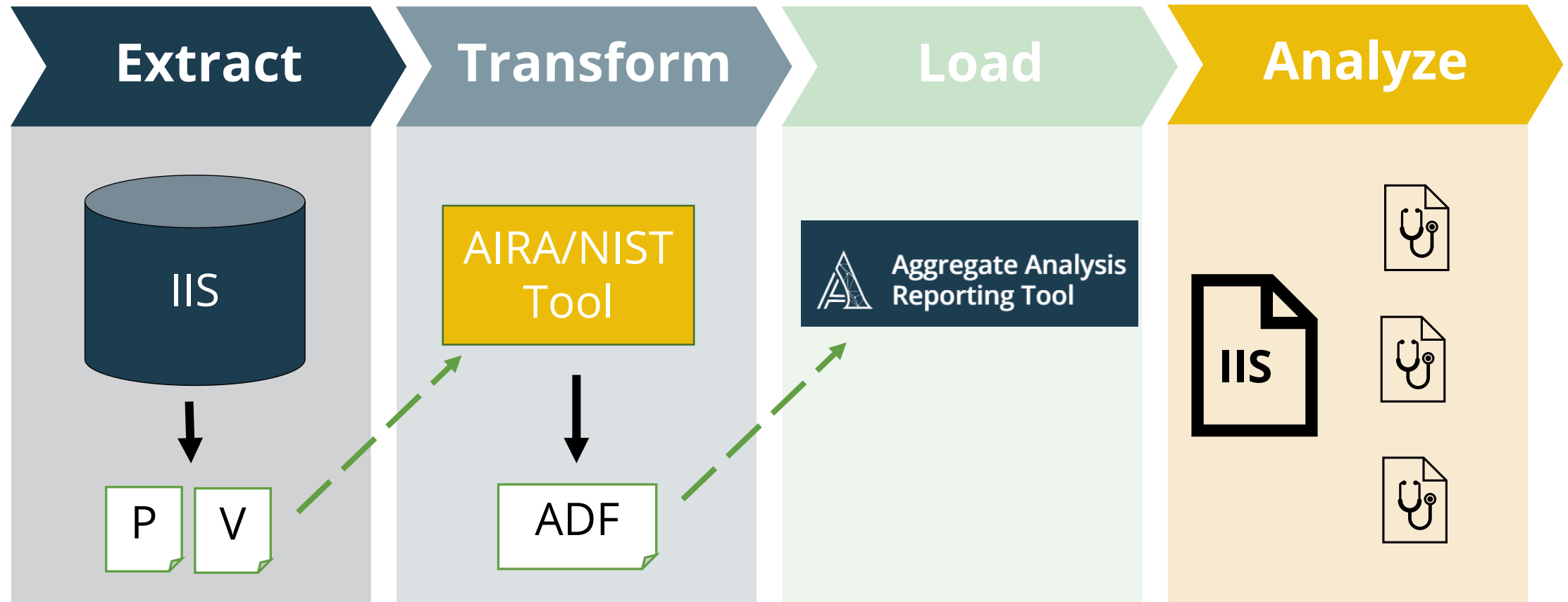
Content Areas  
Measurable Concepts



# Complementary Support



# Data-at-Rest (DAR)



# DAR Reports

Data At Rest Quality Analysis Tool (qDAR) v4.0.0

[Home](#)
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[Upload File](#)
[Configurations](#)
[Report Templates](#)

Alexandra Hayes
AART

[Dashboard](#)
AIRA Sandbox
PUBLISHED
2024 Discovery IIS Wide AIRA Sandbox
Updated On 01-05-2024 12:05

Threshold
All
Fail
Pass
Report Filter
Choose Reporting Group Hash File (CSV)

filter
1. Completeness
1.1. Patient first name is present.
1.2. Patient middle name is present.
1.3. Patient last name is present.
1.4. Patient birth date is present.
1.5. Patient gender is present.
1.6. Patient address street is present.
1.7. Patient address city is present.
1.8. Patient address state is present.
1.9. Patient address ZIP code is present.
1.10. Patient complete address is present.
1.11. Patient race is present.
1.12. Patient ethnicity is present.
1.13. Patient phone number is present.

1. Completeness

1.1. Patient first name is present.

Total number of patient records with a first name present over Total number of patient records extracted > 99.0%

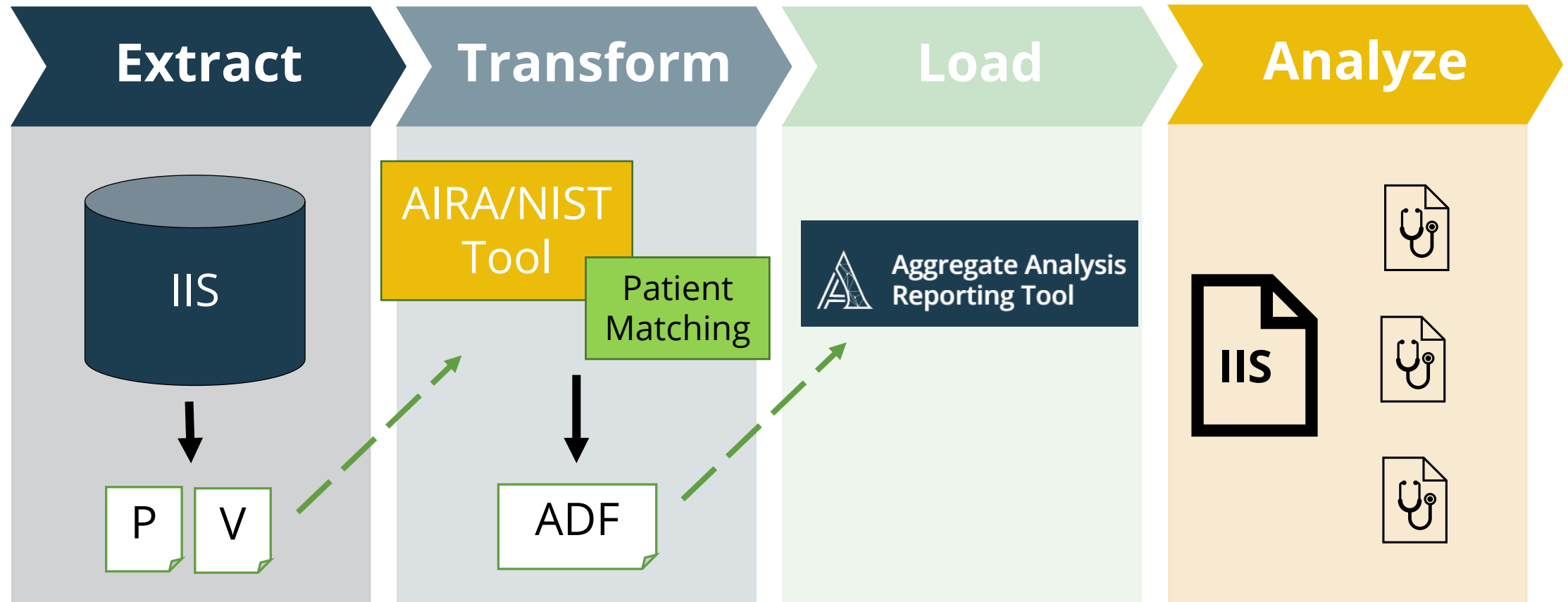
Data Analysis	Query	Export CSV	Save Query
DETECTION_TYPE	Value	Threshold	Bar
MQE0683 - Patient name first is present	93.7% ( 282 / 301 )	Higher than 99% (FAIL)	

1.2. Patient middle name is present.

Total number of patient records with a middle name present over Total number of patient records extracted > 75.0%

Data Analysis	Query	Export CSV	Save Query
DETECTION_TYPE	Value	Threshold	Bar
MQE0685 - Patient middle name is present	87.4% ( 263 / 301 )	Higher than 75% (PASS)	

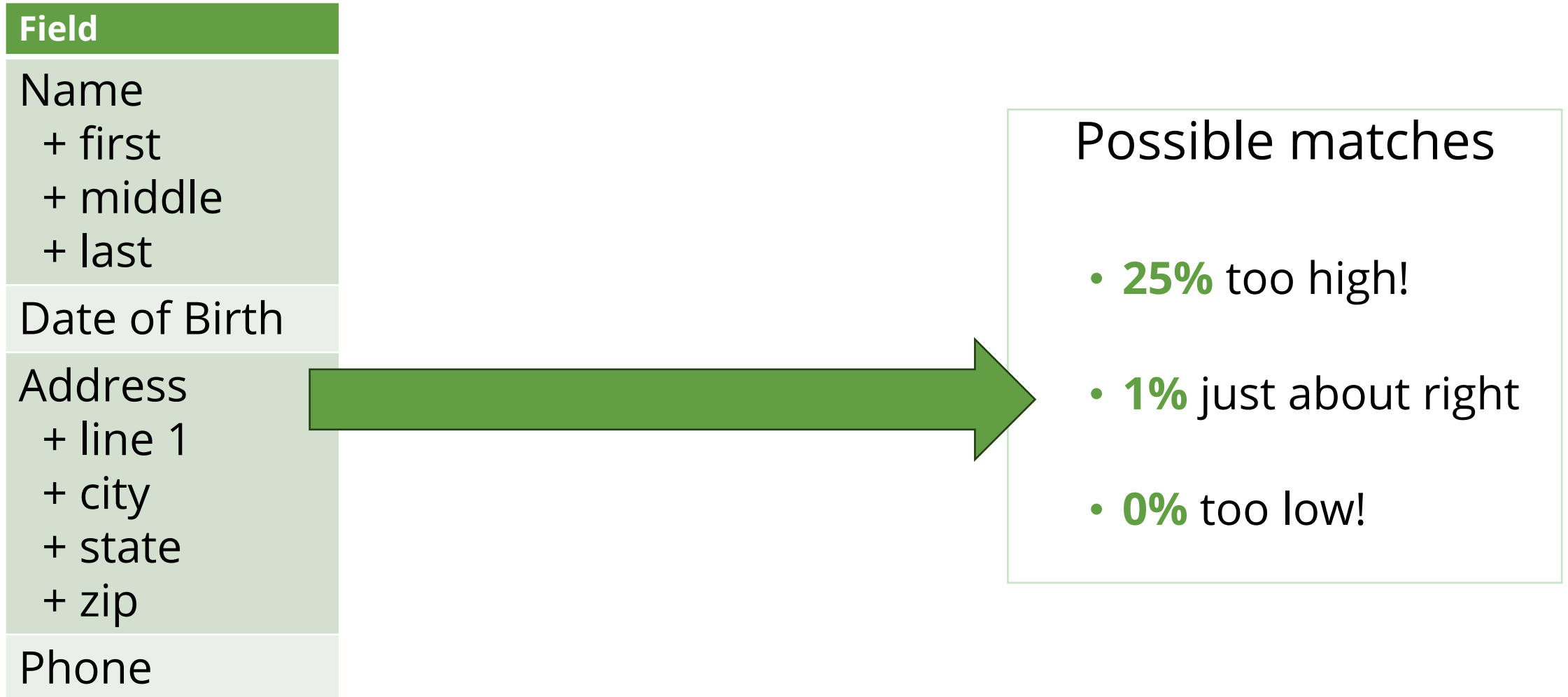
# Data-at-Rest (DAR) + Patient Matching



# DAR + Patient Matching

Field
Name <ul style="list-style-type: none"><li>+ first</li><li>+ middle</li><li>+ last</li></ul>
Date of Birth
Address <ul style="list-style-type: none"><li>+ line 1</li><li>+ city</li><li>+ state</li><li>+ zip</li></ul>
Phone

# DAR + Patient Matching



# DAR + Patient Matching

Field
Name + first + middle + last
Date of Birth
Address + line 1 + city + state + zip
Phone

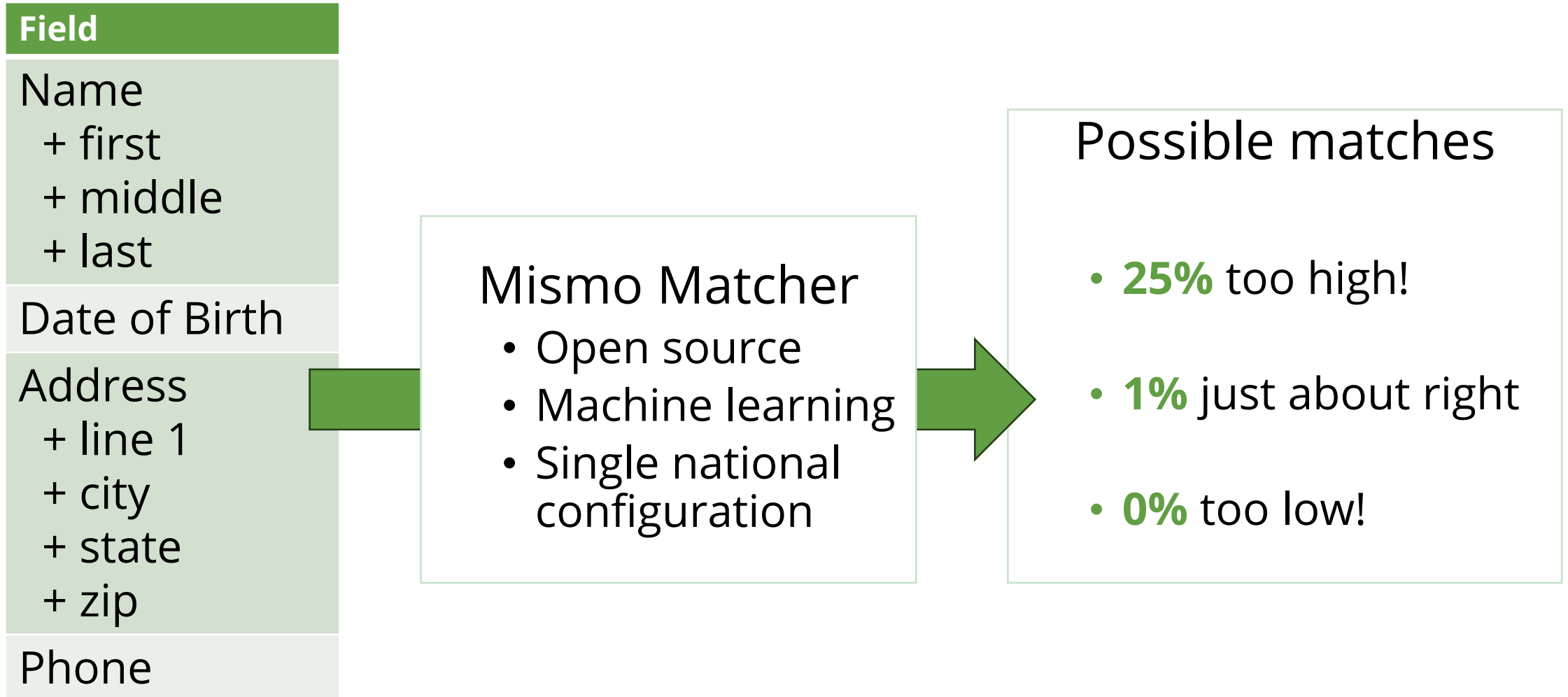


## Possible matches

- **25%** too high!
- **1%** just about right
- **0%** too low!



# DAR + Patient Matching



# DAR Patient Matching

Completed  
Feb 2024



# Pilot

## Goals:

- Verify tool can execute
- Verify DAR report generation
- Get feedback on local outputs
- Input for MACAW In Person

## Limitations:

- Not comparable
- Very limited feedback for IIS

# Pilot #1, cont.

	IIS #1	IIS #2	IIS #3	IIS #4
Records	27,211	42,912	69,331	27,018
DAR CLI run time	3 mins (151 r/s)	21 mins (34 r/s)	8 mins (144 r/s)	7 mins (64 r/s)
Possible matches	0.8%	0.7%	0.7%	0.7%

# Pilot #1, cont.

	IIS #1	IIS #2	IIS #3	IIS #4
Records	27,211	42,912	69,331	27,018
DAR CLI run time	3 mins (151 r/s)	21 mins (34 r/s)	8 mins (144 r/s)	7 mins (64 r/s)
Possible matches	0.8%	0.7%	0.7%	0.7%
4 or more invalid	0.1%	0.05%	0.01%	0.1%
No doses	2.9%	0.8%	<0.1%	8%
Only a single HepB	5%	-	6%	-
Junk, temp, test names	1%	14%	1%	3%

# Want to learn more?



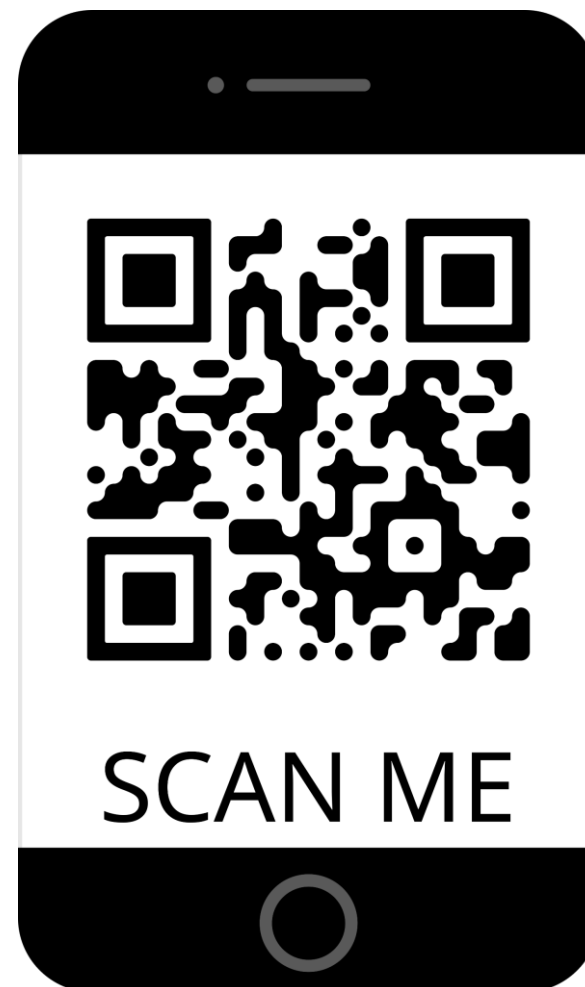
Technical Resources



Measures and Test for  
Assessment



Recording and slides of the  
DAR Town Hall



# Join DAR Today!

- Please see AIRA staff for additional information about DAR assessment and/or DAR-Like Patient Matching pilot.