



# ADVANCES IN EHR/IIS INTEROPERABILITY BY SELECT IMMUNIZATION PROGRAMS

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# BACKGROUND

## PPHF INTEROPERABILITY COOPERATIVE AGREEMENT

### Purpose

- To build capacity for interoperability between IIS and provider EHR

### Awardees

- 31 awardees
- Awards ranged from \$625K to \$2M (total of \$44M awarded)

### Timeframe

- First awards were made in September 2014
- Projects took between 2 and 4 years to complete
- A total of 13 projects are ongoing

# METHODS

Awardees built capacity in several approved areas

- Interoperability
- Onboarding
- Hardware / data storage / hosting
- Clinical decision support for immunizations (CDSi)

*Note: Each awardee developed a unique plan for building capacity. Awardees focused on activities relevant to their jurisdiction.*

Two months before the end of the project, awardees submitted an evaluation plan

Awardees submitted a final report based on the evaluation plan

# EVALUATION PLAN TEMPLATE

CDC created an Evaluation Plan Template to quantify awardee activities and outcomes and to demonstrate the impact of the Cooperative Agreement

The template contained 4 sections:

- Activities and Accomplishments
- Provider Site Enhancements
- Data Quality Improvement
- Other Project Information

# ACTIVITIES AND ACCOMPLISHMENTS

## Interoperability

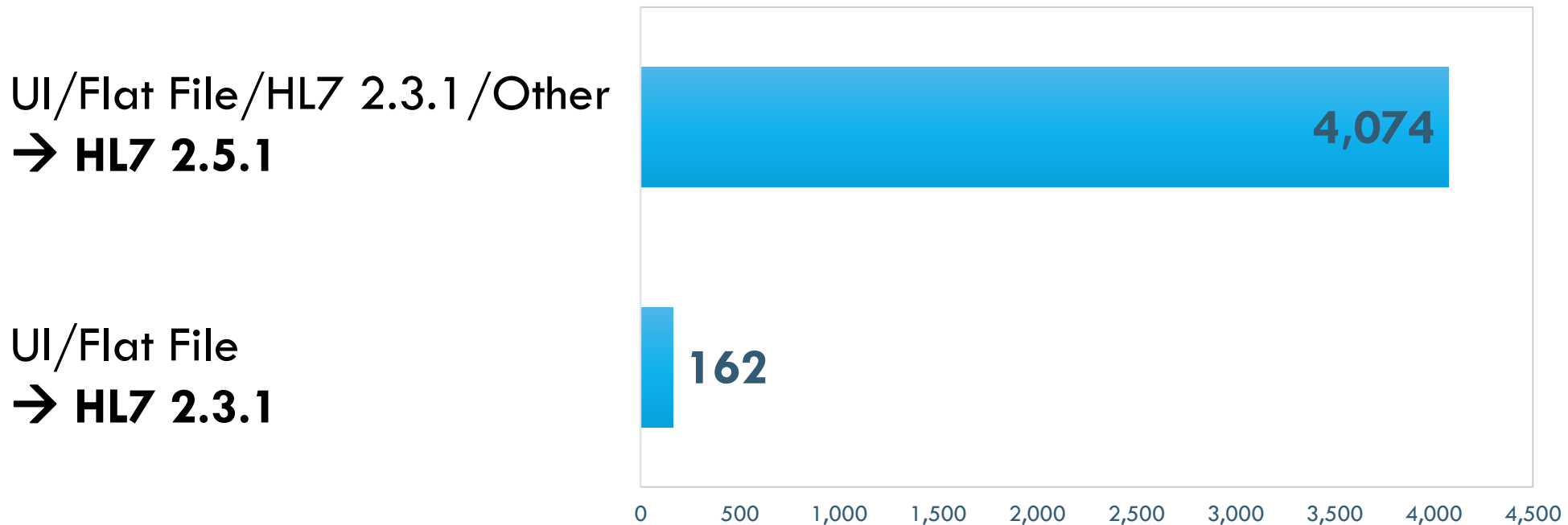
- Enhance Functionality
- Improve Data Quality
- Develop Communications / Training Materials
- Test New Software
- Plan for Sustainability

## Onboarding

- Enhance Operations
- Add New Providers
- Improve Data Exchange Methods
- Enhance Functionality

# PROVIDER SITE ENHANCEMENTS PRELIMINARY RESULTS – 12 AWARDEES REPRESENTED

Number of Provider Sites transitioned to HL7 2.5.1 and to HL7 2.3.1

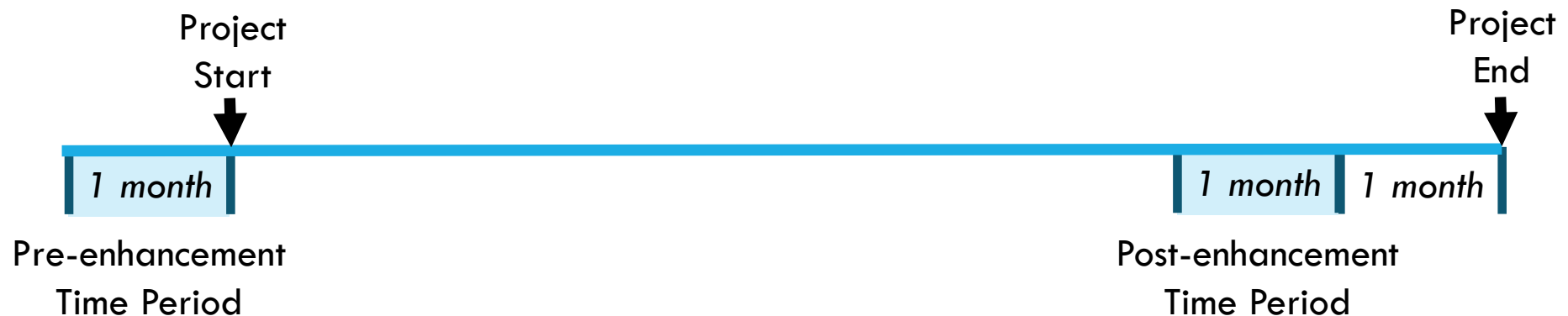


# DATA QUALITY IMPROVEMENT

## Measures

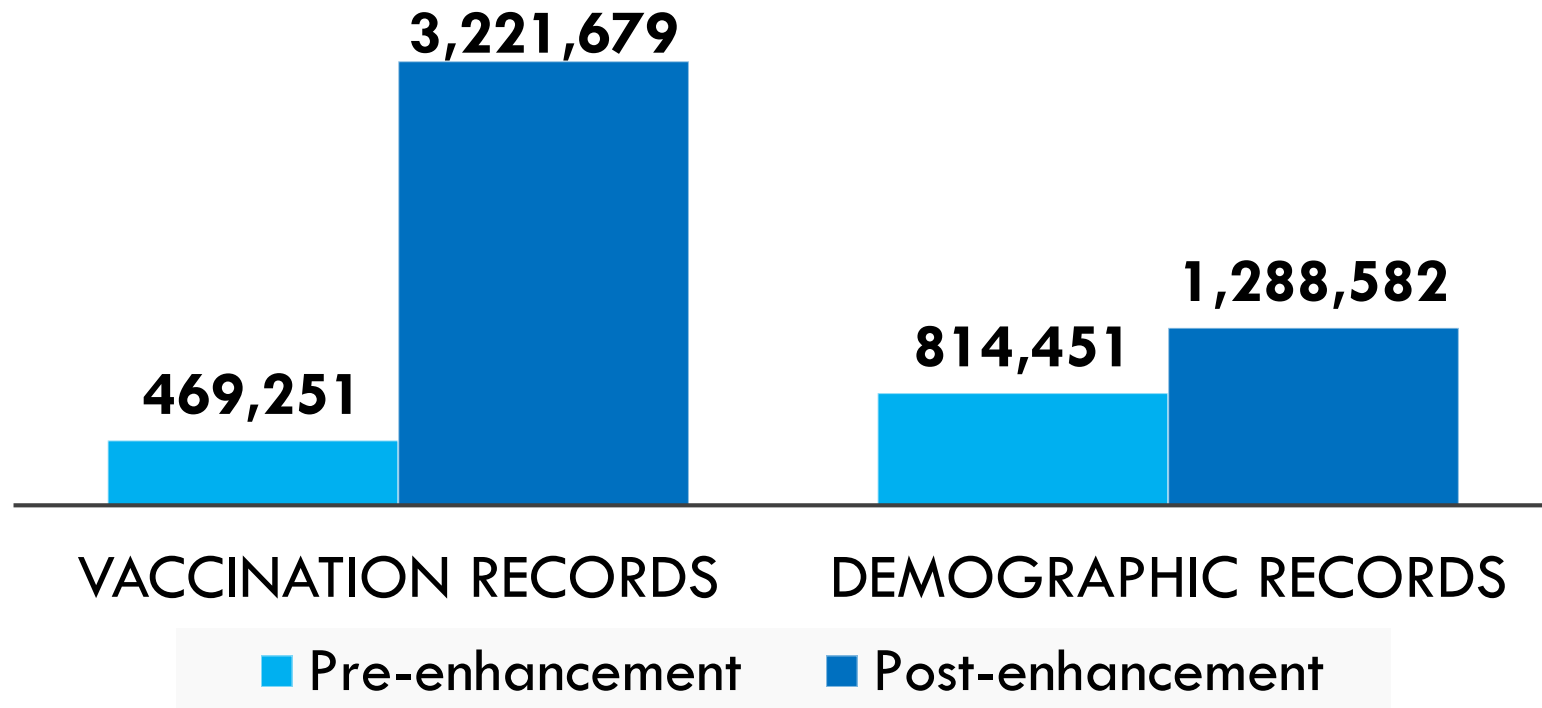
- Change in number of vaccination and demographic records submitted to the IIS before and after the project
- Change in timeliness of vaccination records submitted to the IIS before and after the project

Time periods of interest (*timeline not to scale*)



# DATA QUALITY: RECORDS SUBMITTED PRELIMINARY RESULTS — 12 AWARDEES REPRESENTED

Number of Vaccination and Demographic Records Submitted to the IIS

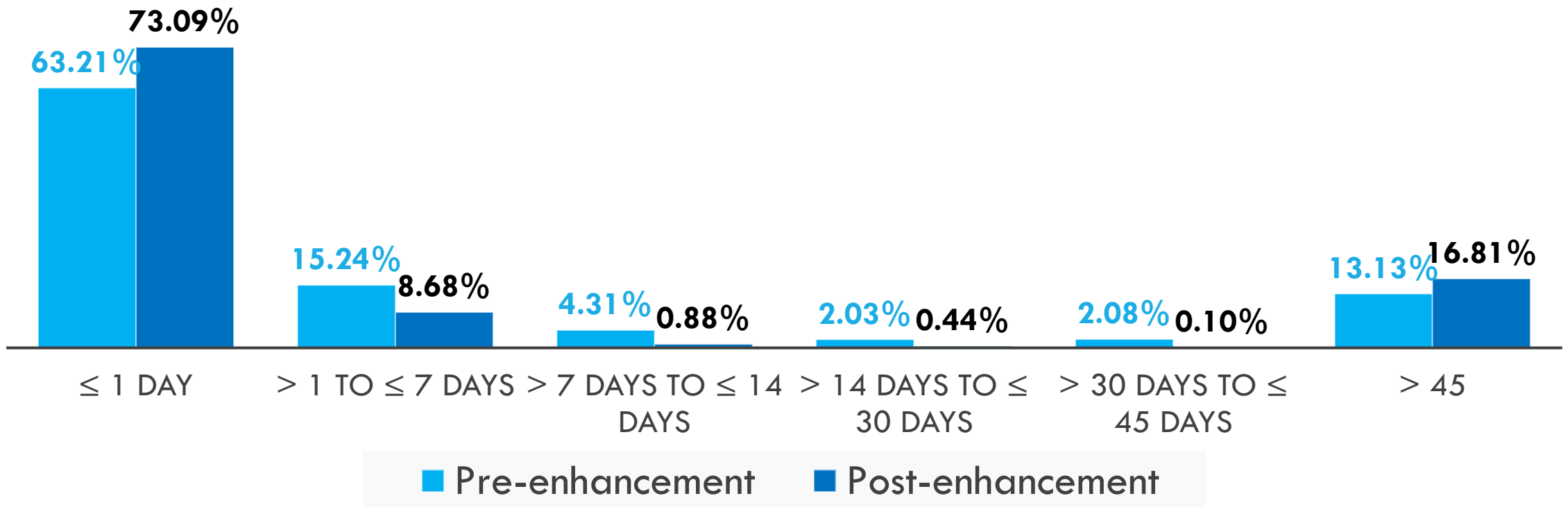




# DATA QUALITY: TIMELINESS

## PRELIMINARY RESULTS — 12 AWARDEES REPRESENTED

Percentage of Vaccination Records Submitted, by Timeliness Category



# OTHER PROJECT INFORMATION

**Successes** – echoed the accomplishments listed on slide 5

## **Challenges**

- Many similar to challenges related to development, deployment, and sustainability
- Interoperability-specific (e.g., EHR vendor/ provider relationship, onboarding)

# OTHER PROJECT INFORMATION

## **Presentations, Articles, Community Artifacts, Other Project Summaries**

- AIRA and other conference presentations
- Data Quality
- Interoperability, including with non-traditional partners and unconventional systems
- Onboarding
- Partnering with Your HIE

# CONCLUSIONS

## **Awardees demonstrated impact of the PPHF projects**

- Awardees built interoperability capacity between IIS and provider EHR
- Number of vaccination and demographic records submitted to the IIS increased
- Vaccination records are submitted to the IIS more timely
- Each recipient benefitted directly with improvements to infrastructure and processes; many lessons learned were shared

## **Evaluation results will be useful into the future**

- Inform existing and new interoperability and onboarding projects
- Connect awardees that have similar areas of interest

# THANK YOU!

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Please send questions about this presentation to [IIInfo@cdc.gov](mailto:IIInfo@cdc.gov).

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