



# ***CDC's Data Modernization Initiative (DMI) and its Impact on Public Health Agencies***

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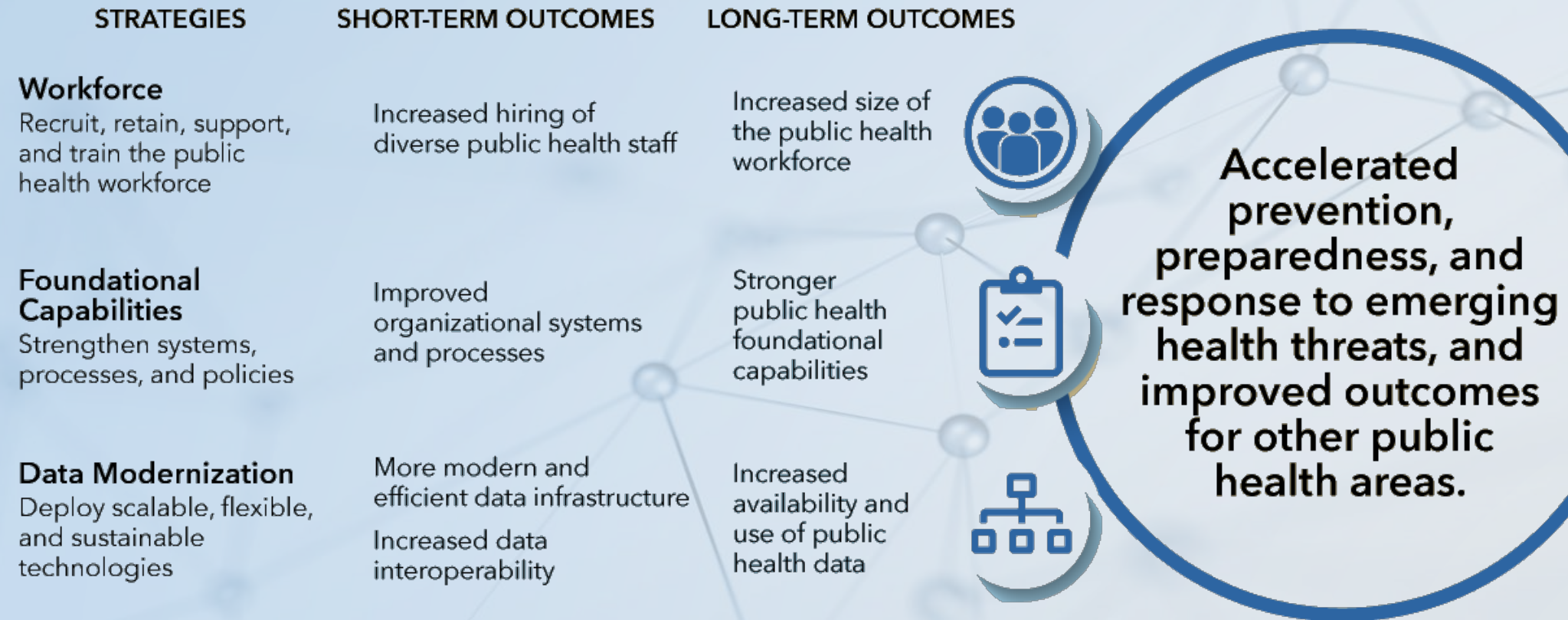
# Objectives for This Presentation

- Brief history on DMI
- Quick case study: Immunization Information Systems through a DMI lens
- Issues and challenges

# Introduction to CDC's Data Modernization Initiative ([DMI](#))

- Began as far back as 2019/2020, pre-pandemic
- Overarching goal: *Modernize data across the federal and state public health landscape (right data, right people, right time)*
- Started in CDC CSELS through Epidemiology and Laboratory Capacity (ELC) program, now managed in Office of Public Health Data, Surveillance and Technology (OPHDST)
- Multi-year, multi-billion dollar Congressional appropriation
  - CDC: \$50M in 2020 → \$100M in 2022 → \$175M in 2023
  - CDC: \$500M in CARES Act; \$500M in American Rescue Plan
  - [Public Health Infrastructure Grant Program](#): \$3.2B
    - DMI through ELC: \$635M

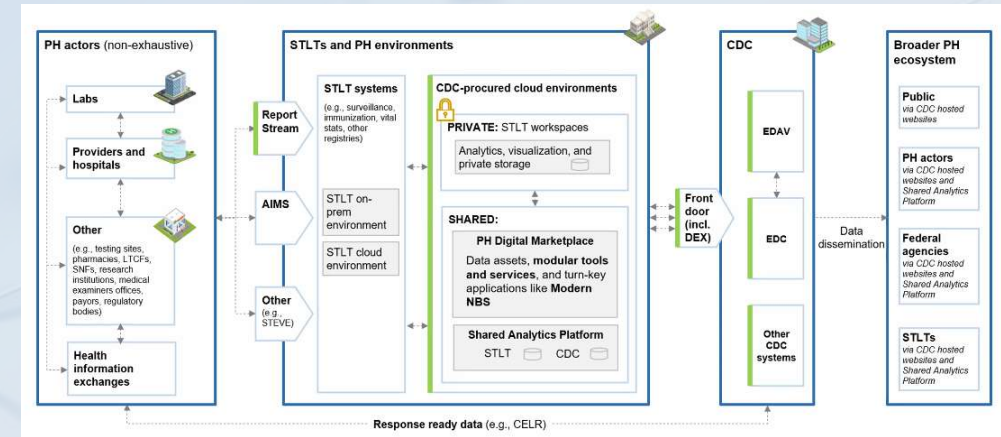
# Public Health Infrastructure Grant Program



Source: CDC's [PHIG Overview](#)

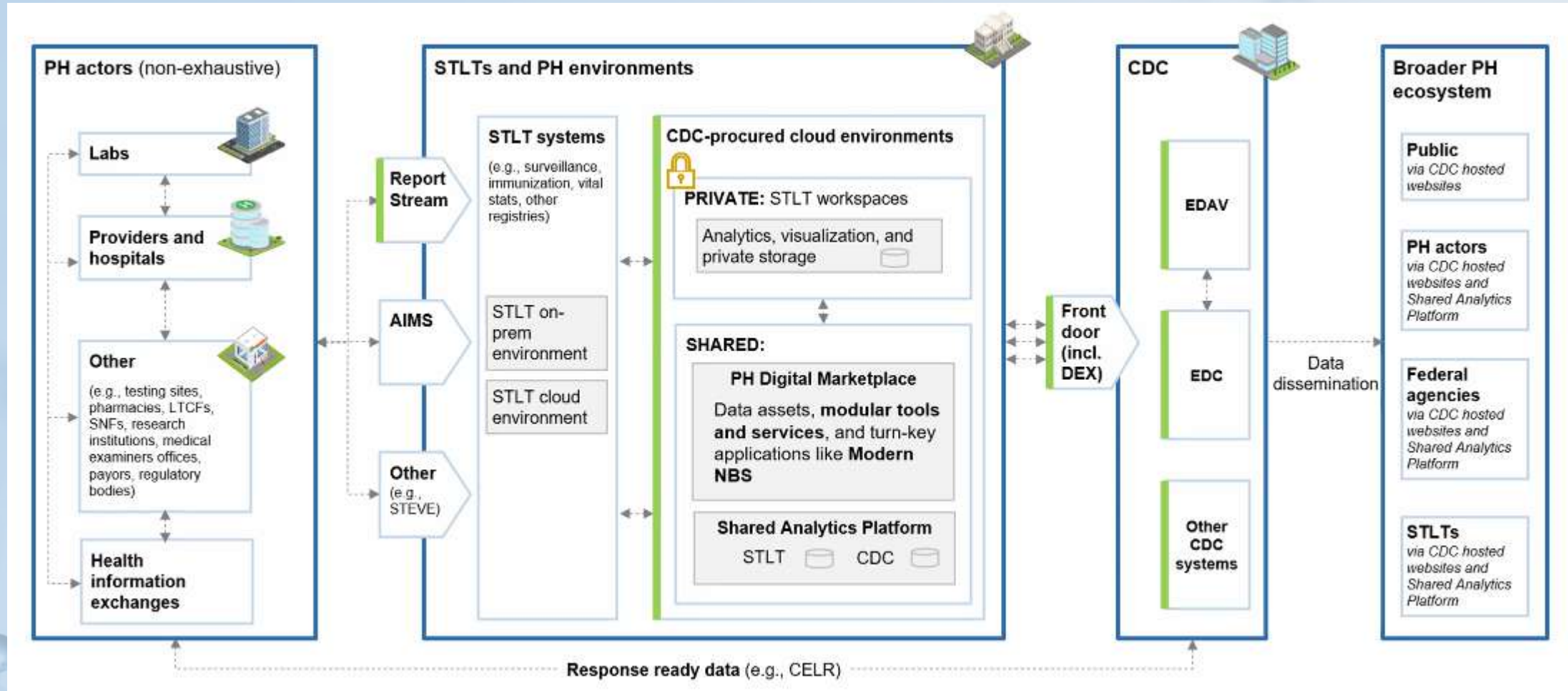
# DMI: Major Activities

- Northstar Architecture Framework
- Cloud Computing
- Artificial Intelligence and Machine Learning
- Data, Analytics, and Visualization
- CDC “Front Door”
- Improving “Data Pipeline”
  - Building Blocks



Source: CDC's [DMI Basics](#)

# DMI: Major Activities



Source: CDC's [DMI Basics](#)

# DMI Approach to Interoperability



Source: CDC's [DMI Snapshot 2022](#)

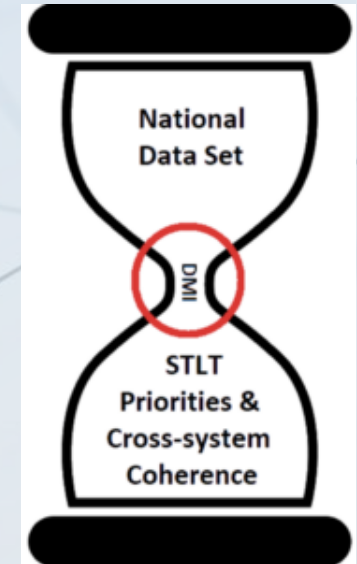
# IIS: From Afterthought to Forefront?

- DMI started is CSELS – limited exposure to IIS
- Agencies raised IIS examples, especially in PHII DMI Learning Community
- IZ Gateway makes a good “found pilot”
  - Good use of standards
  - Enables interoperability
  - Data Exchange (DEX): pilot for CDC “[Front Door](#)”
- AIRA/PHII/CDC Workforce Development activities
- AIRA/CDC work on measurement (MACAW); product consortia
- CDC implementation of PPRL
- Shared services
  - Long-standing open source work (*e.g.*, ICE, MQE)
  - Cooperative purchasing (*e.g.*, Smarty)



# Issues and Challenges

- Synergy between CDC “enterprise” and STLT goals
- Choice between “going wide” or “going deep”
- Core applications showing their age
- COVID funding “cliff”
- Post-pandemic fatigue
- Tight labor market, especially for technical positions
- Lack of understanding of open source concepts and utility



# Issues and Challenges

- New technologies can be challenging to implement well and/or quickly
- Limited exposure to date by industry partners to DMI concepts, plans, and collaboration
- Impact of CDC reorganization not well understood
- Procurement challenges, especially with respect to Agile methodologies
- Data privacy challenges persist

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