



CDC's Data Modernization Initiative (DMI): Impact on Local Agencies

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About HLN

- Twenty-six (26) years in operation
- Highly reputable health information technology consulting company and health informatics thought leader
- Our mission is to enhance and support public health organizations and healthcare providers by providing high quality consulting services, strategic planning, software development including open-source solutions
- Collaborative partner with CDC, CSTE, APHL, ASTHO, AIRA, PHII, and ONC at the state, tribal, local and territorial levels
- Diverse staff with extensive experience supporting public health systems from strategic and practical perspectives
- Unique combination of strategic and tactical projects that inform each other
- “Partnership” approach with clients leveraging Agile methodologies

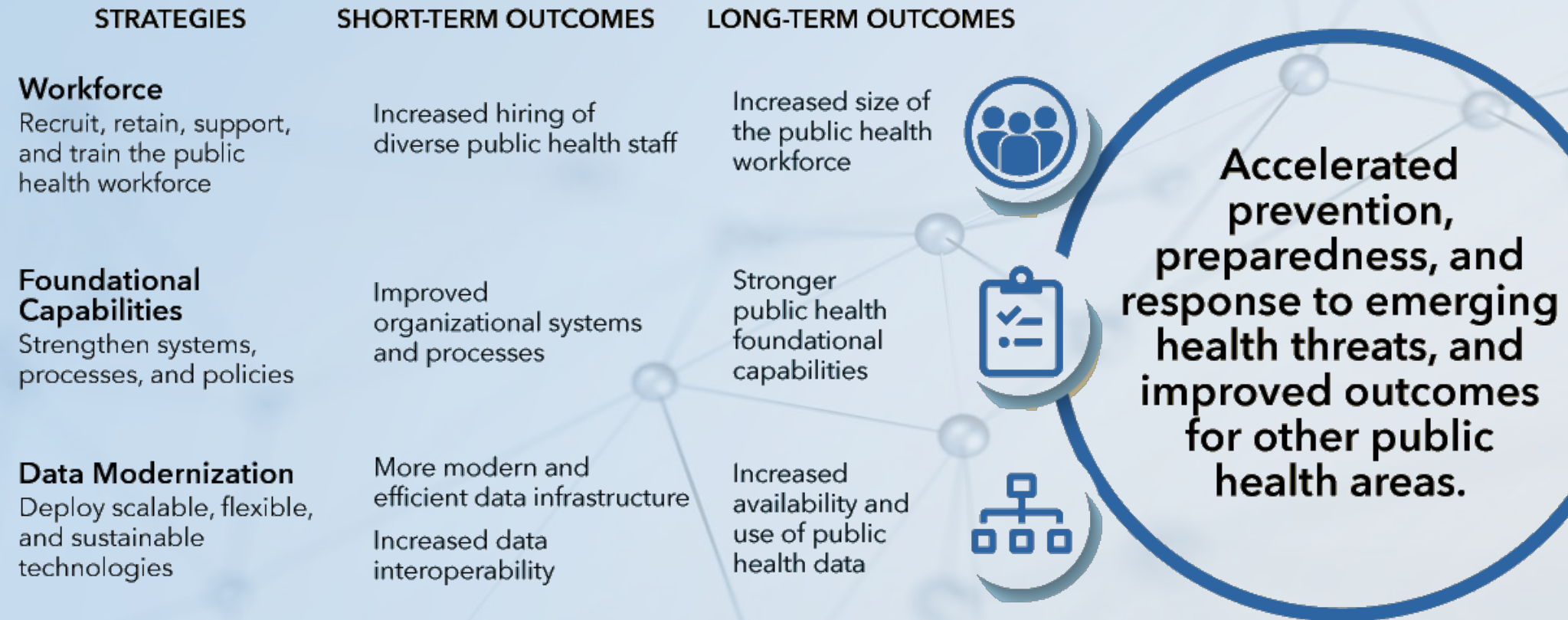
Objectives for This Presentation

- 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

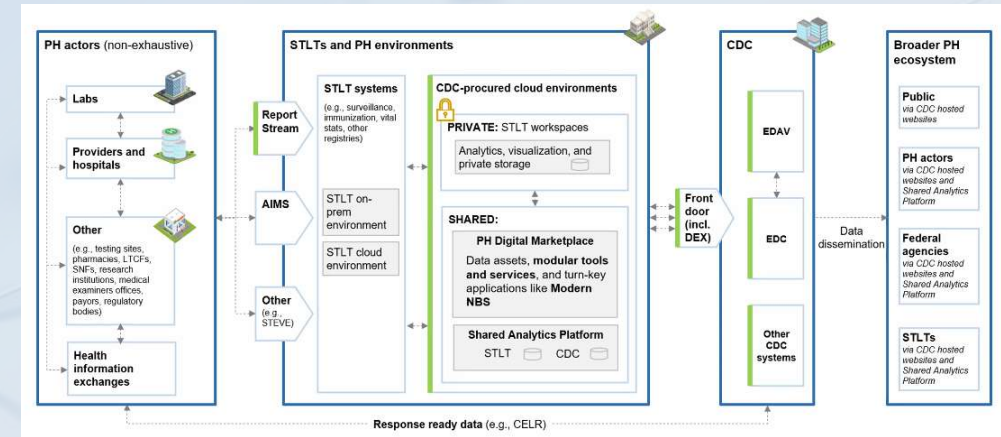
Public Health Infrastructure Grant Program



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

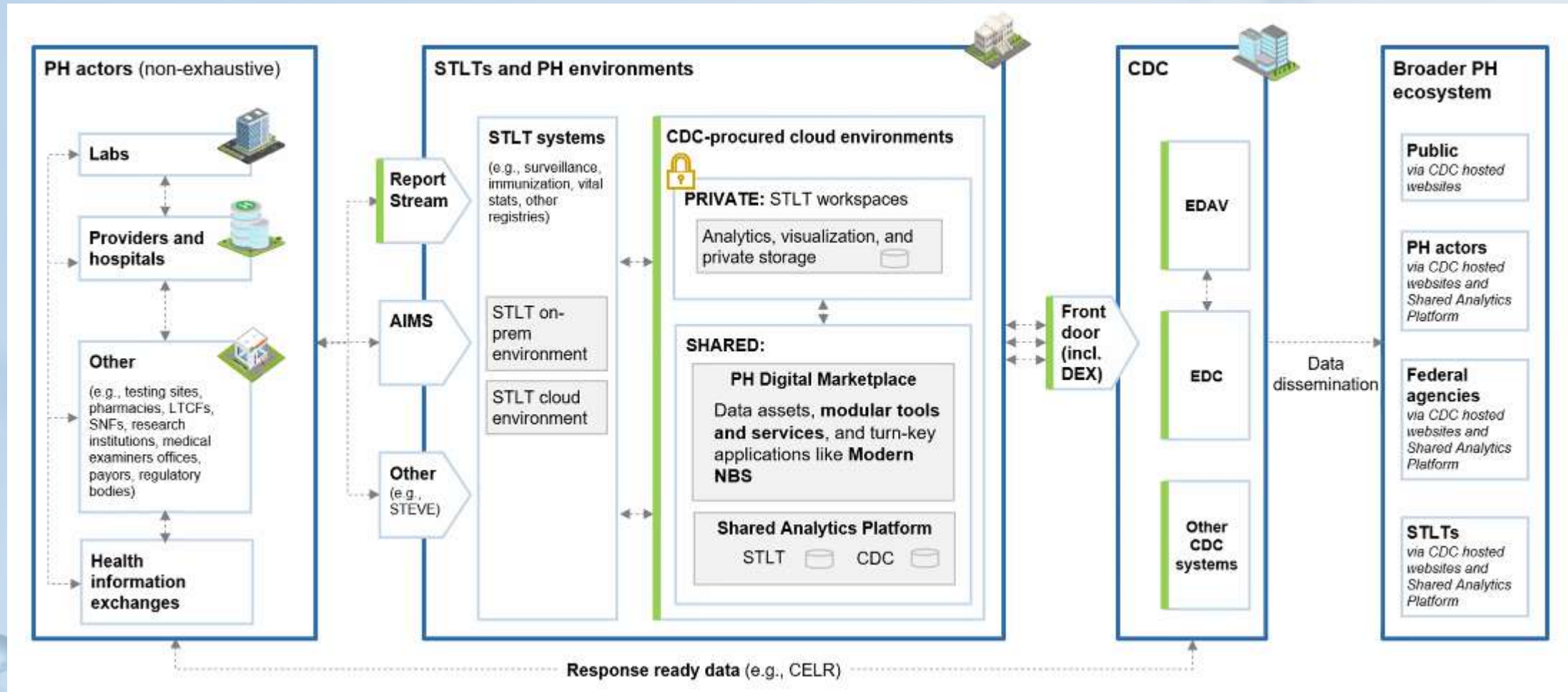
DMI: Major Activities

- 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 [DMU DMI DSI](#)

DMI Approach to Interoperability



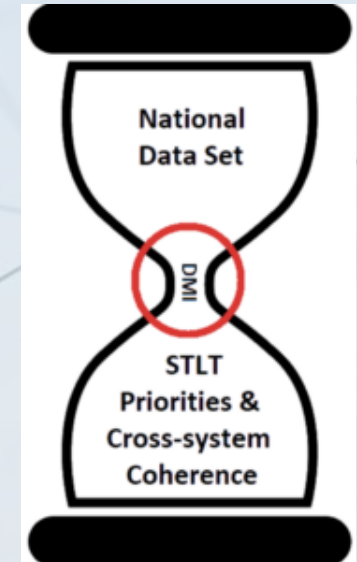
Source: CDC's [DMI Snapshot 2022](#)

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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