Assessment of Public Health Data Modernization Needs

WHAT? Funding Recommendation

HIMSS recommends a $36.7 billion investment to digitize, modernize and interoperate state, territorial, local, and tribal (STLT) public health data infrastructure over ten years

Proposed 10-Year Investment for Meaningful Use & Sustainability Funding

$36,730,775,000

$11,039,800,000
Public Health Interoperability, Meaningful Use & Sustainability

$25,690,975,000
Immediate STLT PH Data Infrastructure

The COVID-19 pandemic has uncovered the unprecedented need for modernized interoperable health information management systems. STLTs require a significant investment to maintain the software, hardware, workforce, licensing sustainability, and technical support to transmit vital health data electronically to public health agencies. Moreover, STLTs are the primary partners required to analyze health data and share insights with the CDC, other federal agencies, healthcare facilities, and health data exchanges throughout the United States to address existing or future health threats and to improve persistent chronic disease outcomes.

With leadership from the CDC and ONC, data modernization "DMI" must command a comprehensive agency-wide focus to improve HHS enterprise IT infrastructure at all levels.

WHY? Problem Statement

Most STLTs rely on outdated data, merged across years to improve sample size, and these data are often not actionable at the neighborhood level.
While the US HHS, via the CDC and ONC, provides strong influence, funding, and technical guidance, these federal agencies are historically limited in how Congress allocates funding to the CDC for public health agencies at the STLT level to use.

As recommended in the HHS Report Public Health 3.0: A Call to Action to Create a 21st Century Public Health Infrastructure, we need to develop timely, locally-relevant health information systems across STLT health agencies. STLTs rely on outdated data, merged across years to improve sample size, and these data are often not actionable at the neighborhood level.
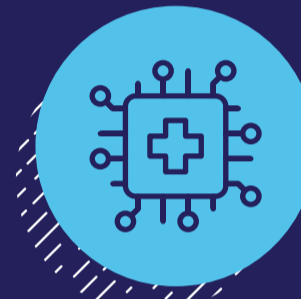
Key Public Health Functionality
Modernization of Public Health Data Systems and Services Includes:

Digitization of the public health infrastructure including cloud-based services
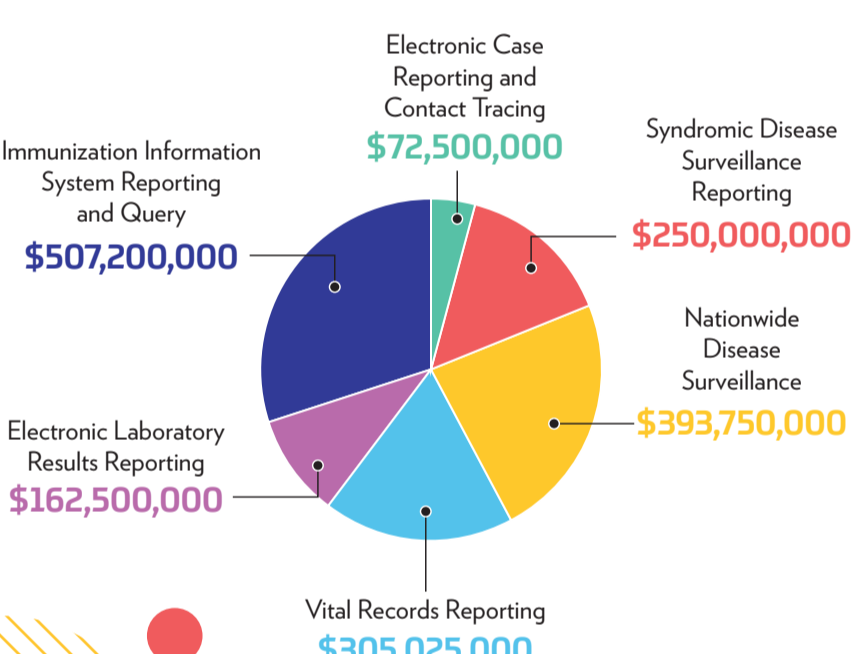
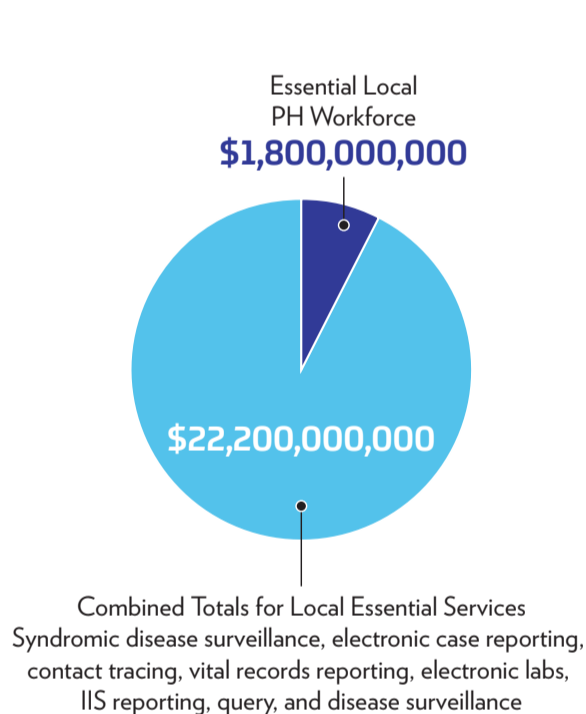Standardization supporting greater interoperability across the spectrum of care

Innovation supporting the transformation of STLTs to support meaningful use, preparedness, and health equity

Essential public health services that must be modernized within 5 years of funding
STLT Essential Services Prioritized for Digitization and Modernization (Year 1-5)

STATE

Electronic Case Reporting and Contact Tracing
$72,500,000

Syndromic Disease Surveillance Reporting
$250,000,000

Immunization Information System Reporting and Query
$507,200,000

Nationwide Disease Surveillance
$393,750,000

Electronic Laboratory Results Reporting
$162,500,000

Vital Records Reporting
$305,025,000

LOCAL

Essential Local PH Workforce
$1,800,000,000

$22,200,000,000

Combined Totals for Local Essential Services
Syndromic disease surveillance, electronic case reporting, contact tracing, vital records reporting, electronic labs, IIS reporting, query, and disease surveillance

Total Estimated Funding $ 25,690,975,000

10-Year Sustainability Investments for PH Modernization - $11,039,800,000
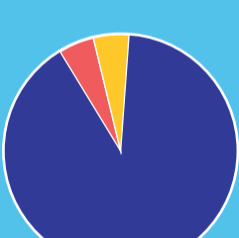
- Nimble Rapid Cycle Learning Health System Environment
- Annual Software, Licensing, and Hardware Updates
- Interoperable Platforms for Data Exchange

10-year Sustainability Funding Strategies

Build a foundation of interoperable platforms to facilitate broad-based data exchange, health data analysis, visualization and reporting

Improve health outcomes with high priority given to gathering the demographic data needed to effectively document then manage inequities and disparities data

Invest in creating a national framework, model law, and policy: Supports recommendations by the Network for Public Health Law for the unifying model laws and policies, and state/territorial monitoring, analysis, and reporting to HHS/CDC

Funding for Public Health "extension centers" and workforce incentives to provide the technical support for business process analysis and redesign, cross-sector system mapping, and to support the development of strategic and operational plans supporting implementation per national interoperability standards, enterprise DMI priorities, and smart communities-cities investments

STLTs and healthcare partners must evaluate and modernize the over 25+ chronic disease surveillance and data systems to ensure a comprehensive approach to value-based whole person care and population health

Looking Ahead

If we do not quickly work to develop or modernize the infrastructure to receive and analyze the data that the federal government requires of STLT public health authorities and healthcare systems to collect and report, we lose any value that could be gained from core lessons learned from the COVID-19 response and data collection.

Improve health outcomes with high priority given to gathering the demographic data needed to effectively manage document then manage, document then address inequities during and post pandemic.

The health IT and Informatics community is also pushed to establish a new system of data governance and standards and to reform a web of legislative privacy laws that may over protect some data sets and under protect other data.

HIMSS