Public Health Data Modernization Policy Statement

POSITION

State and territorial health officials (S/THOs) are committed to public health data modernization and strengthening public health data systems. Modern, response-ready systems are critical for responding to health challenges and new threats. While significant progress has been made, ASTHO urges the nation to support continued long-term funding for data modernization, strengthening organizational capacity and core data systems, modernizing governance structures and policies, and facilitating public access to data resources to empower communities.

BACKGROUND AND EVIDENCE-BASE

Data that is both timely and accurate is the foundation of public health practice and is critical for state and territorial health agencies (S/THAs) to improve health outcomes and promote health equity. However, as highlighted by the COVID-19 pandemic, the current public health data infrastructure requires major updates to enable effective response to current health issues and future public health emergencies.[i]

> **Summary of Recommendations**
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> - Provide and advocate for long-term, flexible funding to support data modernization efforts.
> - Increase informatics capacity within health departments by investing in workforce and foundational capabilities.
> - Modernize core public health data systems to support timely, complete data sharing for public health action.
> - Strengthen and modernize public health governance structures and policies that facilitate exchange and use of data between S/THAs, local health departments, CDC, and other data partners.
> - Support adoption of tools and systems that facilitate public access to data resources to help communities better understand their health.

Many health departments are not equipped for current challenges because they have outdated and siloed data systems that make it difficult to collect, process and use data in an effective and timely manner.[ii] Additionally, many S/THAs lack the organizational capacity to update and maintain data systems, and struggle with hiring and retaining a well-trained workforce.[iii] Furthermore, federal and state laws, policies, and regulations can pose challenges or raise concerns regarding data authority and data sharing within agencies and with other partners[iv], including sharing of data resources with the public or community partners[v].

In response to these challenges, federal, state, local, territorial, and tribal (STLT) agencies and partner organizations have come together to modernize the public health data infrastructure. In 2020, CDC launched the Data Modernization Initiative (DMI), a multi-year, multi-billion-dollar initiative that represents the "first unified, comprehensive effort to modernize core data and surveillance capabilities across the public health landscape."[vi] Since then, Congress has invested more than $1.5 billion in DMI activities to strength the public health surveillance and analytics infrastructure and to promote interoperability[vii].

These investments have enabled key improvements at all levels of public health, including rapid expansion of and improvements to core public health systems, expanding workforce recruitment and training efforts, and coordinating and standardizing policies to facilitate data exchange. However, additional investments and work are critical for DMI to succeed in continuing to build a robust and response-ready public health infrastructure. This policy statement provides recommendations for S/THAs and key partners to promote data modernization efforts within their jurisdiction.

RECOMMENDATIONS

Provide and advocate for full flexible funding mechanisms to support data modernization efforts.

- o Advocate for flexible, disease-agnostic, and sustainable funding to support federal agencies (e.g., CDC, HRSA, CMS, SAMHSA, IHS) and state, local, and territorial health departments in building modern data systems and developing a world-class workforce to create and support the systems.
- o Collaborate with state Medicaid agencies to identify funding opportunities for supporting DMI activities and using data to further Medicaid program health objectives, particularly initiatives that address health inequities in underserved communities.

Increase informatics and advanced analytics capacity within health departments by investing in workforce and foundational capabilities.

- o Invest in recruiting, training, and retaining the informatics[viii] and advanced analytics[ix] workforce.
- o Review and update organizational processes regarding governance, acquisition, and procurement, to support modernization efforts.
- o Implement processes that evaluate DMI activities to promote accountability and continuous performance improvement.
- o Develop and promote career pathways for the informatics workforce.
- o Cultivate private-public partnerships with healthcare, laboratory and Health IT partners to foster innovative solutions for public health practice and response.

Modernize core public health data systems to support timely, complete data sharing for public health action.

- o Migrate legacy systems to an enterprise, cloud-based architecture that allows rapid scaling of systems in response to emergent threats and supports North Star Architecture principles.
- o Integrate CDC's Public Health Data Strategy (PHDS) into data modernization planning.
- o Modernize legacy systems to support reduced manual data collection and processing, as well as integrating, linking, and enrichment of data across core surveillance systems (e.g., case, laboratory, immunization, vital records).
- o Adopt data exchange and messaging standards (e.g., USCDI/USCDI+, HL7 V2, HL7 CDA, HL7 FHIR) to promote interoperability, specifically real-time, bidirectional data exchange with healthcare and laboratory systems.
- o Develop an S/T data strategy outlining public health goals, data sources, and use cases, including vision for use of data to promote health equity.

Strengthen and modernize state and territorial public health governance structures and policies that facilitate bi-directional exchange and use of data between S/THAs, local health departments, CDC, healthcare systems and other data partners.

- o Review and update state laws to promote securely collecting and sharing of public health data from— and to—federal agencies, healthcare systems, and other data partners.
- o Support use of standardized data sharing policies that promote interoperability and consider adoption of ONC's Trusted Exchange Framework and Common Agreement (TEFCA).
- o Completion of a roadmap strategy that clearly articulates a consensus agreement on data sharing policy recommendations.
- o Regularly convene state public health attorneys and legal experts, epidemiologists, federal, state, territorial, local and tribal (STLT) agencies, as well as non-profit, academic and private partners to share lessons learned on current data use agreement approaches and recommendations for improvements as well as privacy and security considerations around data exchange.

- Achieve stronger, sustainable bi-directional data exchange through development and use of common language and data standards from federal agencies.

Support adoption of tools and systems that facilitate public access to data resources to help communities better understand their health.
- Review and update laws related to privacy and security that impact sharing of data resources (e.g., de-identified datasets, visualization tools) with the public.
- Adopt organizational processes to allow efficient sharing of data resources with the public, while remaining in compliance with federal and state laws and prioritizing privacy and security.
- Support partnerships with community, academic, non-profit and private partners to facilitate sharing of data resources, in order to empower communities to identify health issues of importance to them and develop data-driven solutions.

POLICY APPROVAL HISTORY

Population Health and Informatics Policy Committee Approval: May 19, 2023
Board of Directors Approval: June 22, 2023
Policy Expires: June 30, 2026

ASTHO membership supported the development of this policy, which was subsequently approved by the ASTHO Board of Directors. Be advised that the statements are approved as a general framework on the issue at a point in time. Any given state or territorial health official must interpret the issue within the current context of his/her jurisdiction and therefore may not adhere to all aspects of this Policy Statement.

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[i] https://phii.org/wp-content/uploads/2021/07/PHII-Report-to-RWJF-_Final_-5.25.21-1.pdf

[ii] https://cdn.ymaws.com/www.cste.org/resource/resmgr/pdfs/pdfs2/Driving_PH_Print.pdf

[iii] https://journals.lww.com/jphmp/Fulltext/2021/09000/Modernizing_Our_Nation_s_Public_Health_Information.13.aspx

[iv] https://nnphi.org/wp-content/uploads/2021/06/NNPHI-E2A-Kresge-Report-Web.pdf

[v] https://www.networkforphl.org/wp-content/uploads/2022/10/DASH_NPHL-Pathways_to_Yes-FINAL-PDF.pdf

[vi] https://www.cdc.gov/surveillance/pdfs/319521-AE_DMI-Snapshot_clean_032422c_508pass.pdf

[vii] https://www.cdc.gov/surveillance/surveillance-data-strategies/dmi-investments.html

[viii] https://www.cdc.gov/training/publichealth101/informatics.html

[ix] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8274472/