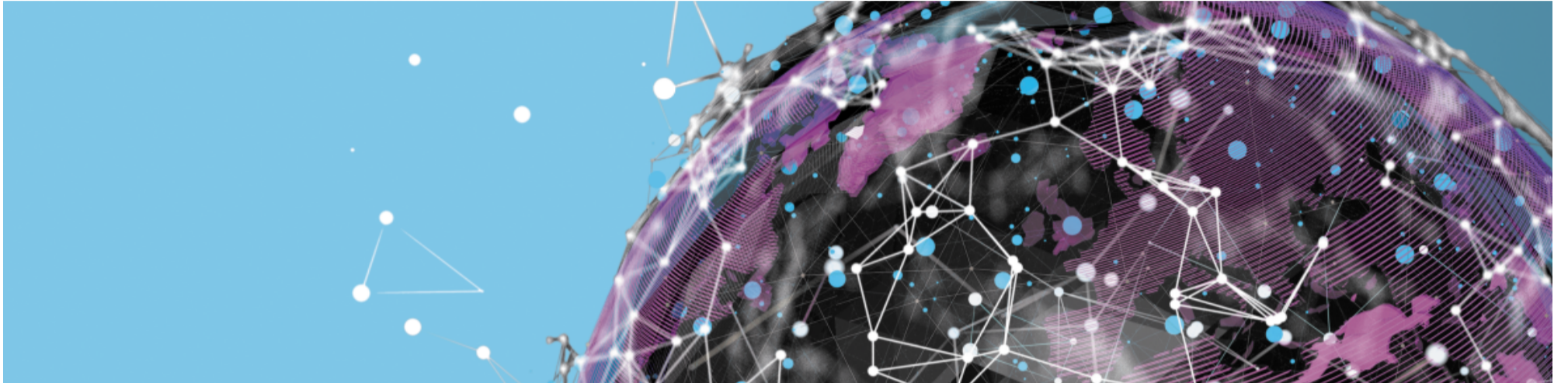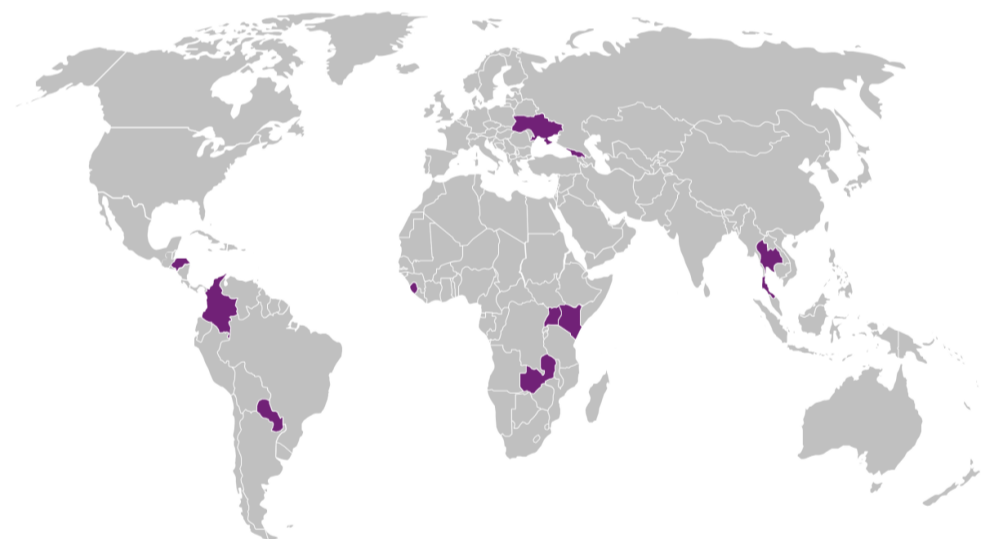Global Health

Global Public Health Data Innovation

CDC's Global Public Health Data Innovation (GPHDI) aims to address key barriers to effective use of data in public health response. This three-year initiative is supported by investment from the 2021 U.S. American Rescue Plan Act. GPHDI allows CDC's work through the Data Modernization Initiative to be leveraged for global health in 10 target countries in the Americas, Africa, and Asia.

CDC responds directly and partners with countries around the world to improve their ability to respond to infectious and non-communicable diseases as part of its commitment to protecting the American people from health and environmental threats. Through its unique expertise in using public health data to inform decisions, as well as establishing systems for emergency operations and response, CDC provides collaborations that enhance global health security.

In alignment with these broader CDC goals, GPHDI funds activities focused on core components that strengthen global outbreak response, pandemic preparedness, and surveillance through improved data availability and use by modernizing data systems and processes at all levels.

Ten target countries include Honduras, Colombia, Paraguay, Sierra Leone, Uganda, Kenya, Zambia, Thailand, Ukraine, and Georgia.

These activities support projects that:

- Bolster capabilities for public health decision making through strengthening of national level data analytics infrastructure and computational platforms
- Enable scalable and timely public health response through Public Health Data Automation
- Enhance data availability and use through data integration and Health Information Exchange
- Increase capacity building in digital health
- Extend coordination and leadership in digital health

GPHDI strives to overcome key barriers to effective use of data in public health response including:

- Issues with data systems or data-intensive public health processes
- Workforce limitations that inhibit rapid adoption and deployment of digital health solutions at scale

- Gaps in data systems governance and policy that inhibit the development and implementation of digital health strategy and response planning

Objectives

Establish or expand scalable platforms ⌃

Establish or expand scalable platforms for national data linkage, repository, and analytics, and the human resources capable of designing and using them; enable their use by public health authorities to rapidly respond to evolving public health events.

Enable data automation and reporting ⌃

Enable data automation and reporting, to authorize secure transfer of service delivery data for public health use, minimizing data collection burden, reducing report delay, and accelerating implementation of new or revised public health reporting when needed.

Establish data integration ⌃

Establish data integration, allowing public health authorities to access, compile, and exchange data from different sources through the use of common architecture, data standards, cloud technology, and alignment in business processes.

Empower the public health workforce ⌃

Empower the public health workforce all levels through coaching and mentorship, training materials, and programs in public health informatics – to build the leadership and core competencies in informatics and digital health needed to operationalize data modernization.

Coordinate global, regional, and national partners ⌃

Coordinate global, regional, and national partners to implement or improve interoperable systems to facilitate data sharing and decision making; support global networks to review and disseminate best practices in global digital health.

Core Components

Cloud Infrastructure
Establish roadmaps for adoption of cloud services models that prioritize data sovereignty and governance.

Data Integration
Establish process and architecture for integration of data from multiple sources to improve decision making and situational awareness.

Data Automation and Reporting
Support digital enablement and business transformation for electronic laboratory and case reporting, and the adoption of computable specifications and SMART guidelines.

Governance, Leadership, and Policy
Draft policy and governance documents for adoption at the country level and provide coordinated technical assistance.

Data Standards
Promote and provide technical assistance to harmonize and adopt messaging and content standards for health data.

Workforce
Enable workforce development through development of training materials and programs in public health informatics.

Data Analytics Platforms
Develop and implement global health use cases for integrated data analytics platforms.

Learn more about how CDC improves data systems infrastructure in public health:

TOGETHER, WE ARE FOCUSED ON THE
DATA · PEOPLE · POLICIES
WE NEED TO *MOVE THE COUNTRY FORWARD*

Data Modernization Initiative
Focuses on improving data systems infrastructure through applied learnings.

Global Digital Health Strategy
Brings together insights from a multi-partner engagement.

Last Reviewed: September 13, 2023