

## UNMET NEEDS

- Provide resources to resolve varying degrees of implementation of biosafety plans and training in public health and clinical laboratories
- Provide resources to build and maintain a competent public health laboratory biosafety workforce
- Bridge the lack of connectivity between healthcare and public health systems
- Increase CDC Epidemiology and Laboratory Capacity (ELC) funding for public health laboratories to sustain biosafety and biosecurity programs.

## BACKGROUND

Biosafety and biosecurity are an integral part of a quality laboratory system. Issues such as incorrect packaging and shipping of biological agents, discovering long forgotten smallpox samples stored in freezers, inappropriate inactivation of anthrax potentially exposing workers and the response to the Ebola outbreak have shown serious gaps within existing biosafety and biosecurity programs. The Ebola outbreak alone resulted in 25,000 cases and over 10,000 deaths worldwide. Specific gaps such as the inability to correctly package and ship samples exposed unmet needs within the laboratory system.

To address the concerns observed during the response to Ebola, the US Centers for Disease Control and Prevention (CDC) provided funds to state and local health departments via the Domestic Ebola Supplement to Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) - Building and Strengthening Epidemiology, Laboratory and Health Information Systems Capacity in State and Local Health Departments.



**Specifically, CDC allocated \$21 million over the course of FY16, FY17 and FY18 to enhance laboratory biosafety and biosecurity across the nation. This funding reaches 62 awardees comprising of state, local and territorial public health laboratories.**

## WHAT ARE PUBLIC HEALTH LABORATORIES DOING TO STRENGTHEN BIOSAFETY AND BIOSECURITY?

Through the funds provided by CDC, public health laboratories across the nation are:

1. Hiring biosafety officers – these much needed professionals will play a key role in strengthening biosafety and biosecurity across public health and sentinel clinical laboratories (e.g. hospitals)
2. Updating biosafety guidelines and plans within their jurisdiction
3. Conducting risk assessments to ensure that the public health labs can safely handle and dispose of Ebola and other highly infectious specimens
4. Identifying gaps and implementing mitigation strategies in public health labs

5. Collaborating with other public health staff and clinical partners to strengthen biosafety and biosecurity practices in sentinel clinical laboratories. For instance, public health lab staff will develop or ensure access to biosafety tools and training for sentinel clinical labs.

## CURRENT APHL EFFORTS TO STRENGTHEN BIOSAFETY AND BIOSECURITY

1. Through the Cooperative Agreement, *Domestic Laboratory Biosafety for Ebola and Other Highly Infectious Diseases*, APHL is working closely with the CDC to strengthen biosafety and biosecurity in the nation's laboratories. The following initiatives are in progress at APHL. Providing subject matter experts to assist public health laboratories with strengthening biosafety and biosecurity capacity. This encompasses developing and providing guidance and tools including biosafety training to public health laboratories, and developing a community of practice for public health biosafety professionals.
2. Improving laboratory coordination and outreach to ensure a more robust public health system capable of safely responding to all threats. This encompasses providing tools to assist public health laboratories with outreach to clinical laboratories and direct engagement of key clinical partners.
3. Promoting policies to strengthen biosafety and biosecurity. This encompasses educating key policy makers and implementing the position statement, "Improving Biosafety in Our Nation's Laboratories."
4. Establishing a Biosafety and Biosecurity Committee with representatives from public health laboratories, private clinical laboratories, partner organizations, and other biosafety experts. The Committee:
  - Collaborates with the CDC to evaluate and assist public health laboratories
  - Develops and promotes a culture of safety within public health and clinical laboratories



**CDC FUNDING**  
**Laboratory Safety and Quality**  
(Dollars in millions)

**FY 2016: \$5.0**  
**FY 2017: \$10.0 (requested)**  
**FY 2017: \$10.0 (required)**

- Develops tools and collaborates with APHL to host them within an online repository
  - Designs and delivers a biosafety and biosecurity training curriculum
  - Promotes a community of practice to generate collaboration among biosafety officers.
5. Collaborating with CDC and other partners to implement the Global Health Security Agenda (GHS) in a multi-sectorial effort to:
- **Prevent** and reduce the likelihood of outbreaks – natural, accidental, or intentional
  - **Detect** threats early to save lives
  - **Respond** rapidly and effectively using multi-sectorial, international coordination and communication.

## FUTURE DIRECTION AND SUPPORT

Public health and clinical laboratories play a pivotal role in surveillance, outbreak response and disease detection. To ensure that laboratories can safely and quickly detect threats, it is imperative to have a long-term sustainable funding strategy for biosafety and biosecurity. ■

## CONTACT

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