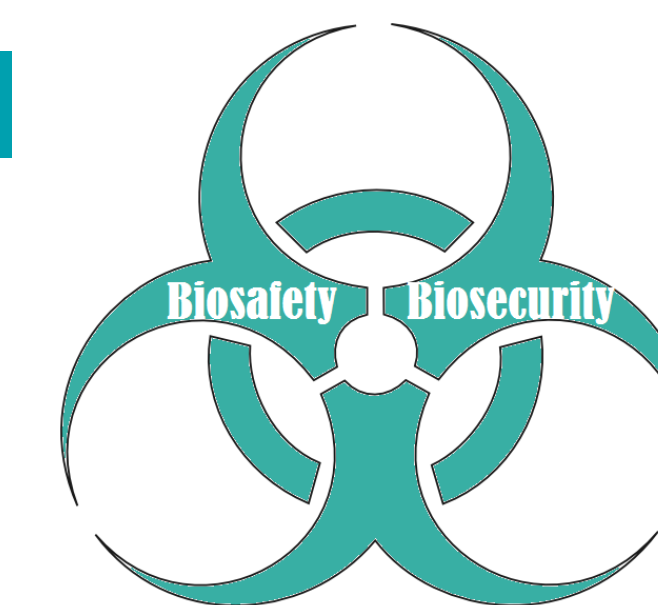


A Comprehensive Review of Biosafety and Biosecurity Programs in State, Local and Territorial Public Health Laboratories



Michael Marsico, MS¹, Chris N. Mangal, MPH¹,
¹Association of Public Health Laboratories, Silver Spring, MD,

BACKGROUND

Emerging threats such as Zika and Ebola Virus Disease (EVD) have called attention to the climate of biosafety and biosecurity in public health laboratories (PHLs) around the US. During the Ebola response, significant gaps were identified in US laboratory biosafety practices. In May 2015, CDC awarded APHL a \$2.2 million Domestic Laboratory Biosafety for Ebola and other Highly Infectious Diseases Cooperative Agreement to (1) serve as subject matter experts to assist PHLs with strengthening their biosafety programs and (2) support PHLs with biosafety outreach. Over the course of three years (2015 – 2018), APHL's Public Health Preparedness and Response (PHPR) Program has strengthened biosafety across US laboratories by coordinating with CDC, state, local and territorial health departments and other partners to review biosafety practices, address identified gaps, develop tools and trainings, promote tools to help laboratorians improve biosafety practices and assist PHLs with outreach to clinical laboratories.

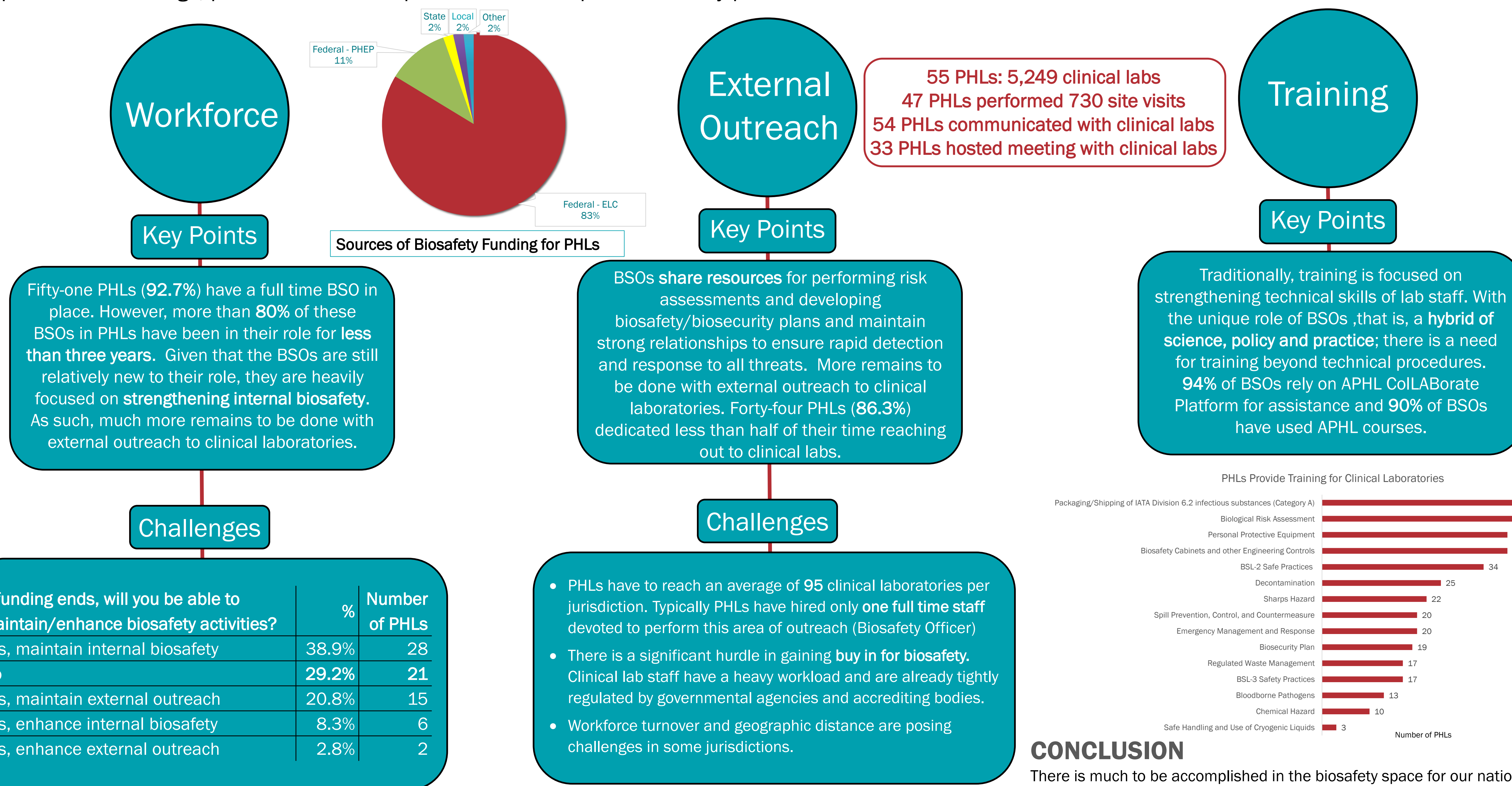
METHODS

APHL conducted the 2016 and 2017 Biosafety and Biosecurity Surveys to the 62 state, local, territorial and US Affiliated Pacific Island (USAPI) PHLs that received \$21 million in March 2015 via the CDC ELC Domestic Ebola Supplemental for Enhanced Laboratory Biosafety and Biosecurity Capacity Cooperative Agreement to identify current biosafety and biosecurity practices and gaps. Questions from both surveys were solicited in the areas of funding, workforce, biosafety competencies, risk assessments, biosafety/biosecurity drills or exercises, clinical laboratory outreach training and related resource needs. Additional questions in the 2017 Biosafety and Biosecurity Survey included funding questions related to maintaining biosafety initiatives after the three year funding period is concluded along with the effectiveness of the APHL developed resources.

RESULTS

Key findings from both APHL Biosafety and Biosecurity Surveys include: (1) PHLs are utilizing the CDC funding to strengthen internal biosafety and biosecurity programs; (2) PHLs are reaching out to and engaging clinical labs but there is significant variability in this outreach; and (3) absent federal funding, sustainability of biosafety programs nationwide will be in jeopardy. Successes include implementing risk assessments, reaching out to sentinel clinical laboratories and delivering training courses to thousands of clinical laboratorians.

Through analysis of both surveys, the APHL Biosafety and Biosecurity Committee (BBC) has been addressing the identified gaps and continues to provide support to PHL directors and biosafety professionals. Since 2015, APHL has developed and delivered numerous tools (e.g. risk assessment templates), educational webinars and programs such as the Biosafety Peer Network, BioSafe 360, Biosafety Regional Workshops and CoLABorate communities to strengthen biosafety practices within both the public health and clinical laboratory systems.



For More Information

Please visit <http://www.APHL.org/biosafety> or contact us at biosafety@aphl.org



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Acknowledgements / Sources

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CONCLUSION

There is much to be accomplished in the biosafety space for our nation's laboratories. APHL uses the survey data to identify successes, gaps and remaining challenges in biosafety and biosecurity. APHL also tailors its training programs to meet the needs of its members. Given the success from the cooperative agreement, biosafety programs are essential to a laboratory. A long-term, sustainable funding strategy is needed to continue to strengthen PHL and clinical biosafety and biosecurity programs. The funding will assist laboratories with maintaining and hiring highly skilled BSOs, improving outreach to clinical laboratories and increasing their buy-in, providing training to internal staff and external laboratories and ultimately ensuring a safe and secure place thus preventing laboratory-acquired infections.