Laboratory Preparedness for Future Responses

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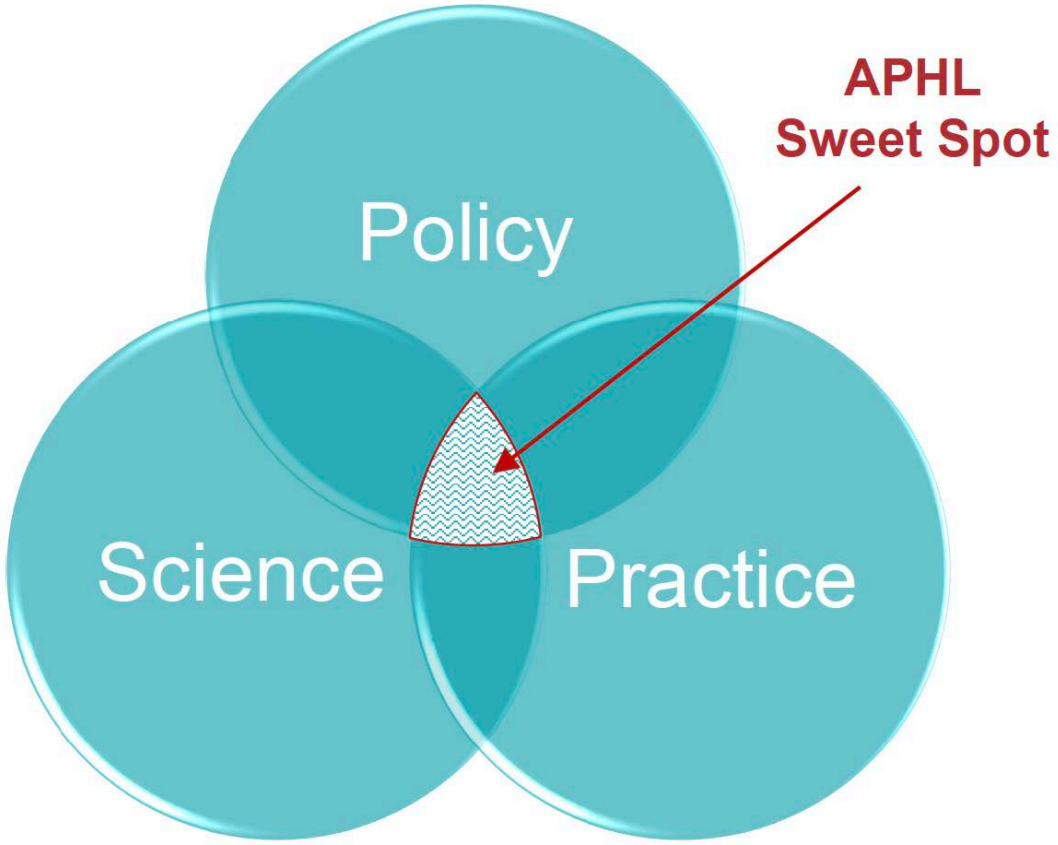
About APHL

Vision

A healthier world through quality laboratory systems.

Mission

Shape national and global health outcomes by promoting the value and contribution of public health laboratories and continuously improving the public health laboratory system and practice.



Organizational Values

Community: We actively foster meaningful connections and belonging among members and partners to promote collaboration, growth and diversity of thought that maximizes our contributions to advance public health.

Diversity, Equity, Inclusion and Accessibility: We embrace, promote and model a culture of diversity, equity, inclusion, and accessibility (DEIA) and recognize it as essential to the work we perform and the communities we serve.

Innovation: We meet the diverse and ever-changing public health landscape through forward-thinking and adaptive leadership.

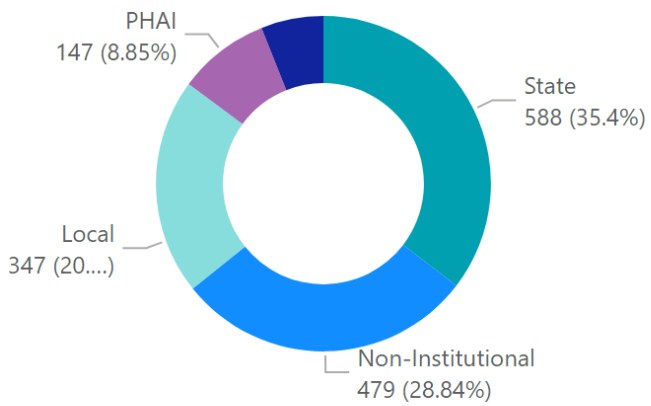
Scientific and Professional Integrity: We are a trusted leader in public health, striving for continuous improvement and the highest level of ethics and honesty in laboratory science and practice.

APHL Membership

Reporting Month

Dec-23

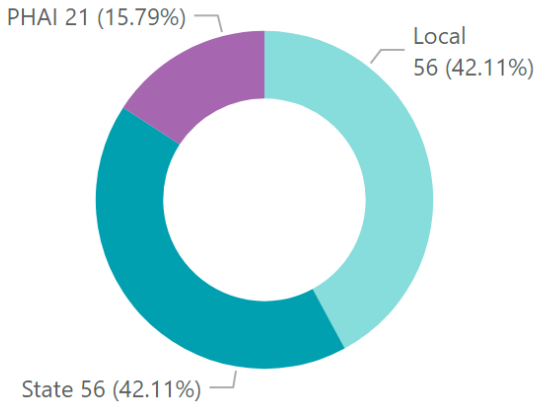
Member Count by Category



1661

Total Members

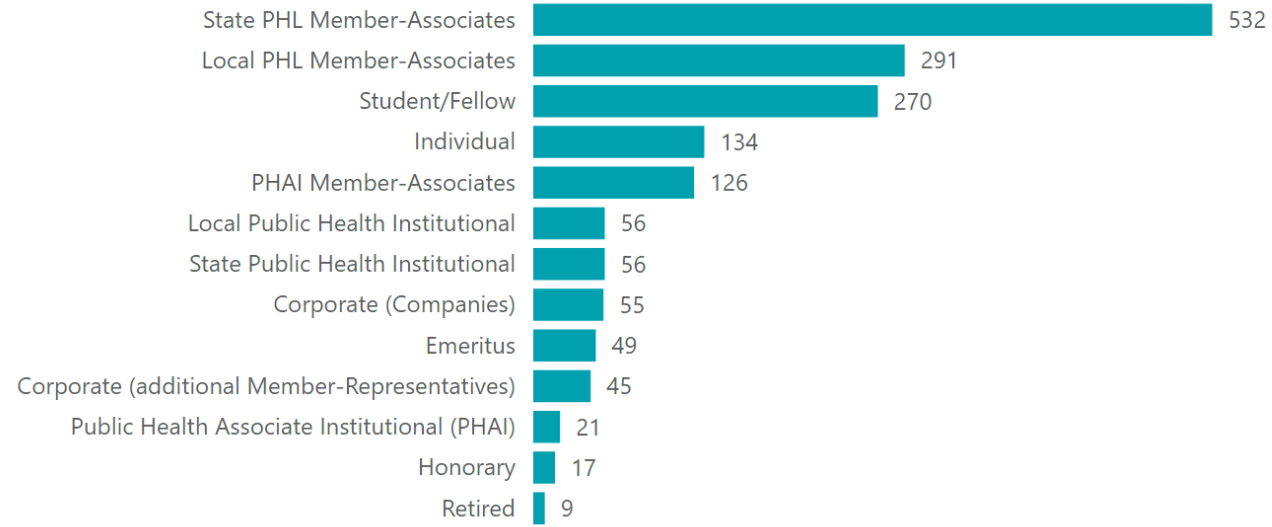
Member Laboratories



133

Total Laboratories

APHL Membership



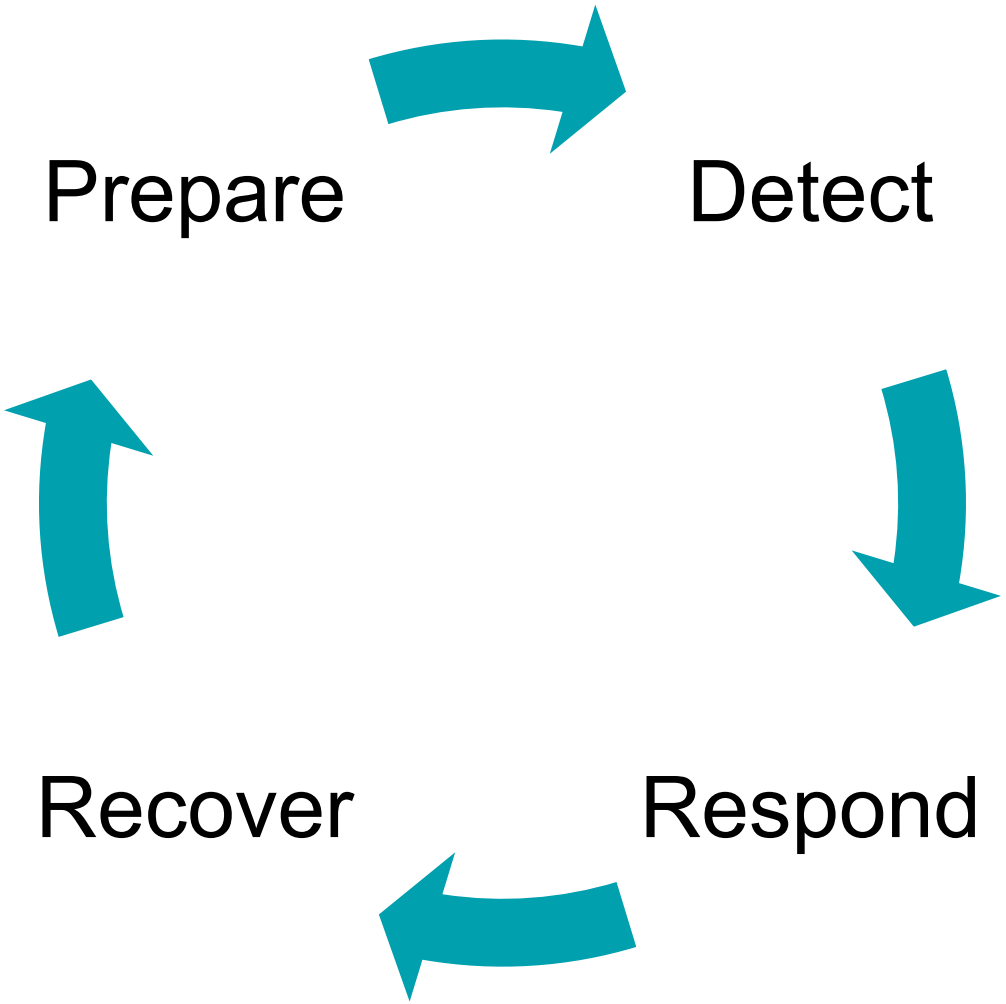
Notable Membership Changes

New Laboratory Representatives

Sara Vetter - MN PHL

Laboratory Preparedness and Response

Laboratory Preparedness and Response Cycle



Prepare


Networks, Partnerships and Communications


Laboratory Specific Policies and Procedures e.g., notification, safety, biosafety and biosecurity


Planning: Continuity of Operations Plan, Surge Capacity Plan


Systems and Infrastructure: Data Reporting, Equipment and Maintenance Contracts, Inventory/Supply Chain


Workforce

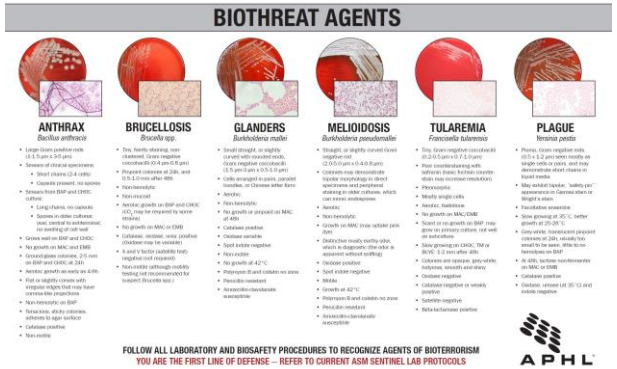

Regulatory Compliance: Tests In Place and Ongoing Test Development


Specimen Collection and Transport


Training, Drills and Exercises

Clinical Laboratory Partnerships

Resourcing Laboratories to Succeed



- Clinical Laboratory Preparedness and Response Guide (Blue Book)
- Laboratory Response Network (LRN) Sentinel Level Clinical Laboratory Guidelines - American Society for Microbiology (ASM)
- MOU with College of American Pathologists and CDC – Laboratory Preparedness Exercise (LPX)
- MOU with CDC and Other Partners for Diagnostic Surge Testing Capacity for Public Health Emergencies

AMERICAN SOCIETY FOR MICROBIOLOGY

COLLEGE of AMERICAN PATHOLOGISTS

Detect and Respond

- Incident Management System (Incident Command System)
- Notifications
- Ongoing Communications
- Quality Testing and Regulatory Compliance
- Timely Reporting
- Inventory/Supply Chain
- Workforce: supportive environment for workforce; ensure there is staff rotation to avoid burnout; maintain a positive work environment with accessible leadership

Major Events

2001: Anthrax	2003: Monkeypox, Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV); Ricin; Tularemia; Anthrax; Bovine Spongiform Encephalopathy BSE (Mad Cow Disease)	2004: Democratic and Republican National Conventions; West Nile Virus	2005: Marburg Virus; Hurricane Katrina	2006: Mumps; *E. coli* Outbreaks; Botulism
2007: XDR/MDR Tuberculosis	2008: Salmonella and *E. coli* Outbreaks	2009: H1N1 Influenza Pandemic; Salmonella Typhimurium Outbreak; Presidential Inauguration	2010: New Hampshire Anthrax; Deepwater Horizon Oil Spill	2011: Japan Earthquake and Tsunami (Japan Nuclear Crisis)
2012: Polio; Multistate Meningitis Outbreak; Hurricane Sandy	2013: Avian Influenza H7N9 Response; Middle East Respiratory Syndrome Coronavirus (MERS-CoV), Multistate Cyclospora Outbreak, Polio	2014: MERS-CoV; Ebola Response; Polio Outbreak	2015: DoD Sample Investigation	2016: Zika Virus Response; Flint, Michigan Water Contamination Response
2017: Hurricanes Harvey, Irma, and Maria	2019: E-cigarette or Vaping use-Associated Lung Injury (EVALI)	2020: SARS-CoV-2 Pandemic	2021: SARS-CoV-2 Pandemic	2022: Multi-National Monkeypox Virus

Recover

- Acknowledge staff
- Transition to routine testing
- Have a plan for active and passive surveillance (engage public health)
- Review and manage specimen/sample inventory
- After Action Review

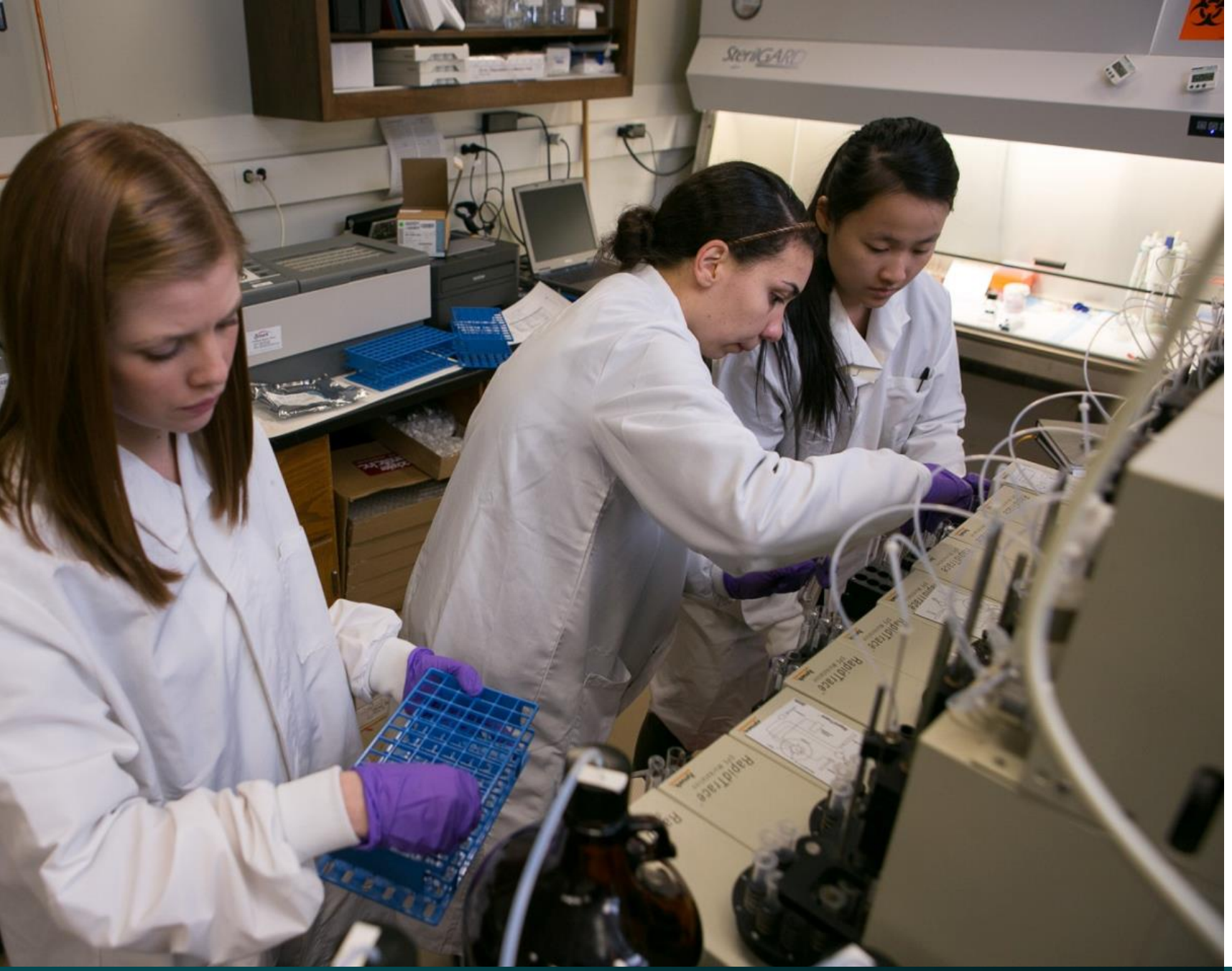
After Action Review (AAR)

- Research Full Report: Identifying Operational Challenges and Solutions During the COVID-19 Response Among US Public Health Laboratories - PMC (nih.gov)
- Laboratory Response to Pandemic Threats: Challenges, Needs, and Solutions | Health Security (liebertpub.com)
- Creating a Blueprint for the Future: Lessons Learned From Public Health Laboratories in the COVID-19 Response - PubMed (nih.gov)
- APHL COVID-19 Newborn Screening Impact Survey Report
- AAR: APHL and RAND Corporation will publish a more comprehensive AAR

Future State

Implement Lessons Learned

- Implement Lessons Learned
- Recognize diversity in testing options e.g., at home testing
- Review and update policies; contribute to improving regulations
- Maintain partnerships in peacetime
- Inform and educate leadership – private sector, governmental
- Invest in Workforce



Workforce

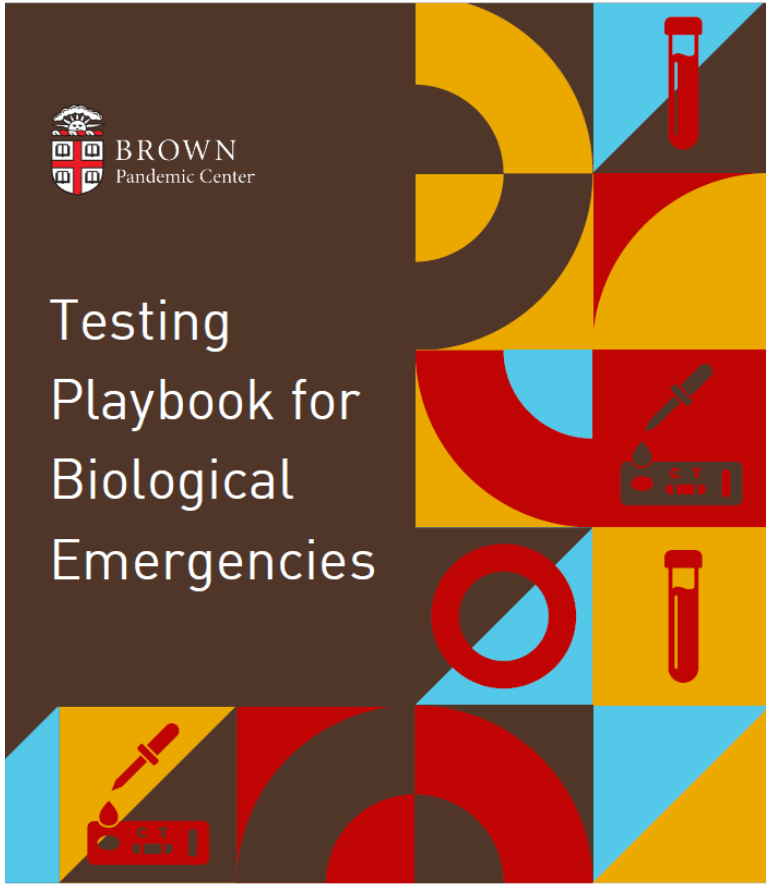
Invest in recruitment and retention

Laboratory Fellowships (aphl.org)

The Playbook

- Better Testing Now
- Testing-Playbook-Biological-Emergencies.pdf (aphl.org)

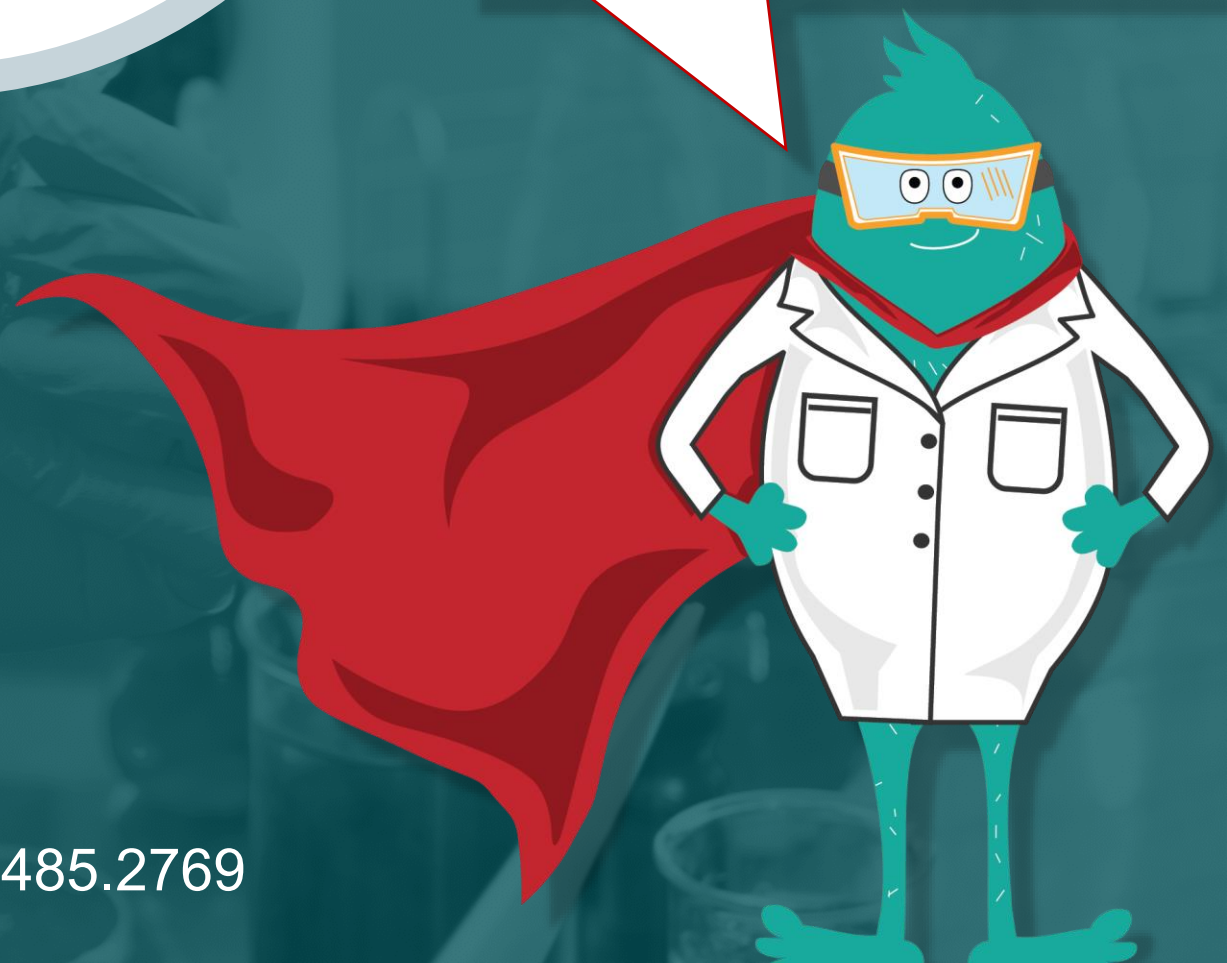
- The goal of the Testing Playbook is to provide US decision-makers at the federal level with a clear and evidence-based guide for making rapid and effective decisions regarding the development, implementation, and scale-up of diagnostic testing in an infectious disease emergency.



Resources

- CDC's Laboratory Outreach Communication System (LOCS) | CDC
- Emergency Use Authorization | FDA
- Continuity of Operations Plan Template
- GP36AE | Planning for Laboratory Operations During a Disaster, 1st Edition (clsi.org)
- Biothreat Response: Sentinel Laboratory Training Toolbox (aphl.org)
- Biosafety and Biosecurity Resources (aphl.org)
- Grow Your Own laboratory Team (ascp.org)

Thank You!



Questions?

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