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# Public – Private Partnerships to Respond to Ebola and Future Threats

Chris N. Mangal, MPH

Director, Public Health Preparedness and Response

Texas Laboratory Response Network Meeting

February 25, 2015

# Outline

- APHL Overview
- Laboratory Response to Ebola
  - Domestic Preparedness
  - International Coordination
- Global Health Security Agenda
- Lessons Learned



# APHL OVERVIEW



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# 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



# What is APHL?

- A 501(c)(3) non-profit organization
- Over 800 members from state and local public health laboratories, state environmental and agricultural labs and others federal agencies
- Advocates at the national level to shape public health policy and to secure support/resources
- Provides training, model practices and technical assistance domestically and internationally



# Key Activities

## Information broker

- CDC ↔ PHL's
- CDC ↔ CDC
- PHL's ↔ PHL's
- EPI ↔ LAB
- Public Communications

## Technology transfer

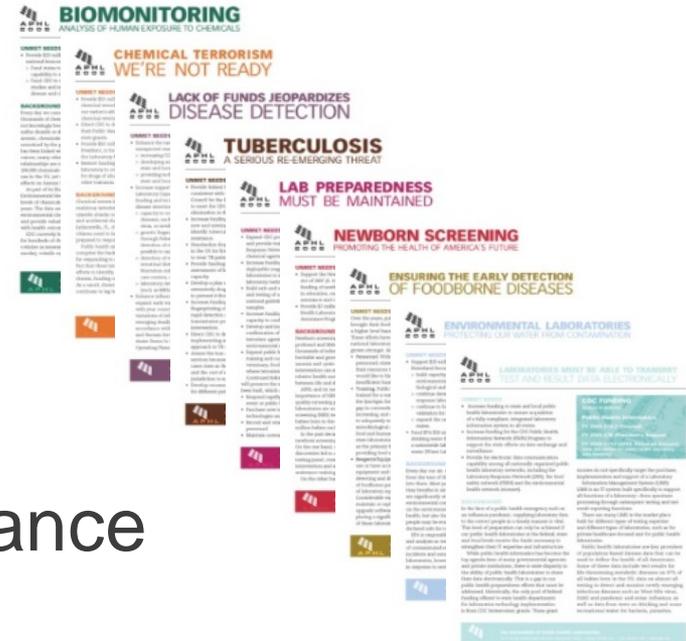
- CDC ↔ PHL's ↔ Other Federal Agencies

## Training, Best Practices & Guidance

## Technical Assistance

## Public Policy

## Leadership Development



# Global Activities

Working in over 25 countries

- Influenza Lab Capacity Assessments
- Lab Capacity and Capability – PEPFAR
- Informatics - PEPFAR
- Twinning
- Newborn Screening
- Food Safety/PulseNet
- Preparedness



**SYSTEMS STRENGTHENING**



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# LABORATORY RESPONSE TO EBOLA: DOMESTIC PREPAREDNESS



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# August 2014



- Aug 6: CDC LRN offers DoD assay to select labs
  - CA – Los Angeles County, FL-Miami, MN, VA, MD, MI, NC, NY state, NYC, OH, PA, TX, WA
- Aug 7: APHL and CDC EOC holds national call
- Aug 12: CDC LRN-B Program Office holds first Ebola Technical Assistance conference call with the selected laboratories



Laboratory Alert

*This call is being convened in response to the ongoing Ebola virus outbreak in West Africa. State and Local Laboratory Directors and Member-Associates have been invited.*

**APHL Laboratory Alert: Ebola Update**  
Thursday, August 7, 2014; 2:00 pm ET



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# August 2014

- Participate on calls: CDC EOC and other Partners; Laboratories
- Collaborate with LRN; CDC Global Health & ASLM
- Partner with CDC for Ebola guidance documents; American Society for Microbiology (ASM)
- Issue a risk assessment template

## Interim Guidance Regarding Compliance with Select Agent Regulations for Laboratories Handling Patient Specimens that are Known or Suspected to Contain Ebola Virus

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Language:

Ebola virus is regulated as a “select agent” in accordance with the HHS Select Agent regulations (42 CFR Part 73). Given below, in question and answer format, is guidance on how to apply the select agent regulations to activities associated with the diagnosis and care of individuals suspected of having an infection with Ebola virus. All questions concerning this guidance, and other aspects of the Ebola response should be submitted to:

### On this Page

- [Ebola Virus](#)
- [Patient and Specimen Management Issues](#)



# August 2014

- Within 2 weeks, APHL developed and issued a ***Template for Public Health Laboratory Risk Assessment for Ebola Virus Disease Testing***



## Template for Public Health Laboratory Risk Assessment for Ebola Virus Disease (EVD) Testing

**Important Note:** This template is designed to assist laboratories in the development of their risk assessment for Ebola Virus Disease (EVD). It may not be an all-encompassing plan as each facility will have their laboratory specific risk assessment procedures.

Standard precautions have been highly effective in preventing transmission of bloodborne infection in the course of handling blood and other potentially infectious material in the clinical laboratory. Standard precautions should be effective in preventing the transmission of Ebola virus and other viral hemorrhagic fever agents in the clinical laboratory. However, Ebola virus is a high consequence pathogen, and there has been limited experience handling specimens potentially contaminated with such a high consequence pathogen in a clinical laboratory using current specimen handling procedures and automated instrumentation. **Therefore, this risk assessment is provided for enhanced precautions and personal protective equipment (PPE) in handling specimens from patients who may be at risk of having Ebola virus infection.**



# September 2014

- Sept 30: The Texas Department of State Health Services Laboratory in Austin diagnosed the first case of Ebola in the US. CDC laboratories confirmed the positive test result the same day.
- Communications: Media Interviews, Website, Social Media
  - **Emphasize the value of LRN, US Public Health Laboratories Are Prepared!**
  - [APHL Blog – In US, Massive Effort to Detect and Respond to Ebola Already Underway](#)
  - [APHL Post on SciLogs: As Ebola Arrived, the Texas Public Health Lab Was Ready](#)



# Texas Prepares and Responds



Erin Swaney reviewing flowchart for sample inactivation while training Biothreat team members Wanda Songy, Garrick Gillispie, and Mark Mergen  
*Photo by Andrew Vinyard, Chemist, TX DSHS*

Mark Mergen extracting using the Qiagen kit while buddy Garrick Gillispie assists  
*Photo by Erin Swaney, Microbiologist, Biothreat Team Leader, TX DSHS*



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# October 2014

- Ongoing Technical Assistance

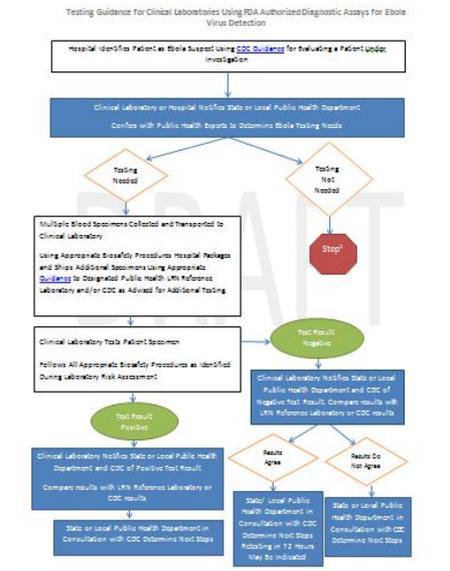
- Risk Assessment Template
- Malaria Testing Survey
- Equipment procurement for NYC PHL
- PPE Availability Search/Contacted Multiple Vendors
- Advocate for broader distribution of the DoD assay

- Planned Ebola PCR Training/Addition to International Influenza PCR Workshop in Madagascar

- Educated Members on Commercially Available Assays

- Issued [\*\*APHL Guidance for Clinical Laboratories Using FDA Authorized Diagnostic Assays for Ebola Virus Detection\*\*](#)

- Collaborated with Private Corporate Partner and FDA to include notification language in EUA Assays



*“ Notification of Public Health: Local, state and national public health agencies (for example, county and state health departments or the U.S. Centers for Disease Control and Prevention (CDC) should be notified of any patient suspected to have Ebola Virus Disease (EVD). Confirmatory testing at the state/local public health laboratory or at CDC is necessary for positive detection results and may be necessary for negative detection results. Laboratories should consult with local, state or national public health officials on any positive detection OR no detection EVD test result on the need for additional testing and appropriate transportation of specimens.”*

# August 2014 – Present

- Communications:
  - Briefings for OSTP and National Security Council
  - Public
- Technology Transfer/Support:
  - Equipment Procurement
  - Assay Optimization (e.g. Ebola extraction bridging studies)
- Guidance: Risk Assessment, Clinical Lab Testing
- Training: Packaging and Shipping
- Technical Assistance: Conference Calls, Funding Tools
- Public Policy: Advocacy/monitor congressional actions on Ebola response and need for funding



# LABORATORY RESPONSE TO EBOLA: INTERNATIONAL COORDINATION



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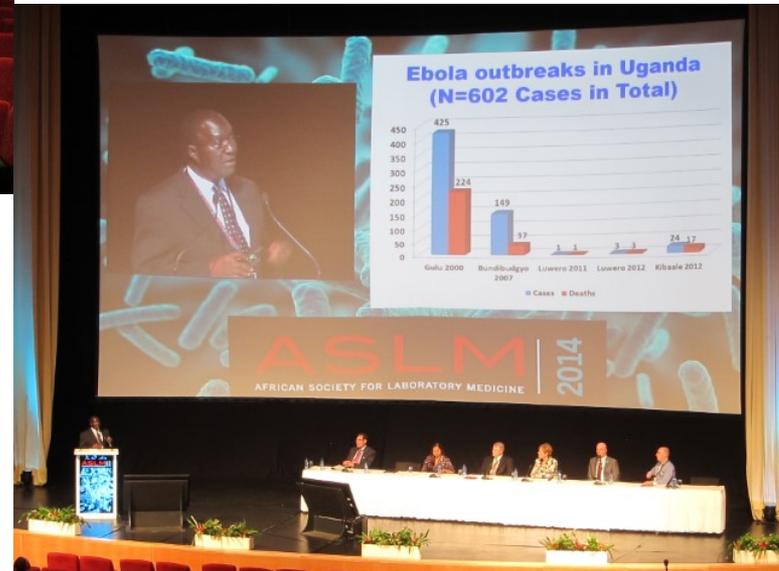
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# APHL Global

- Worked with the African Society for Laboratory Medicine to establish the African Public Health Laboratory Network
- Launched APHLN listserv
- Delivered Ebola training at ASLM 2014 Conference, Cape Town
- Worked with ASLM to deploy Dr. Isatta Wurie to Sierra Leone for Ebola response (supporting CDC Sierra Leone EOC)
- Real-Time PCR Training (Madagascar)



# ASLM2014



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# GLOBAL HEALTH SECURITY AGENDA



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# Global Health Security Agenda

- US Government launched on Feb 13, 2014
- “Advance a world safe and secure from infectious disease threats and to bring together nations from all over the world to make new, concrete commitments, and to elevate global health security as a national leaders-level priority.”
  - **Prevent** and reduce the likelihood of outbreaks
  - **Detect** threats early to save lives
  - **Respond** rapidly and effectively



# Action Packages

- Prevent 1: Antimicrobial Resistance
- Prevent 2: Zoonotic Disease
- Prevent 3: Biosafety and Biosecurity
- Prevent 4: Immunization
- Detect 1: National Laboratory System
- Detect 2 & 3: Real-Time Surveillance
- Detect 4: GHSA Reporting
- Detect 5: Workforce Development
- Respond 1: Emergency Operations Centers
- Respond 2: Linking Public Health with Law and Multisectoral Rapid Response
- Respond 3: Medical Countermeasures and Personnel Deployment Action Package



# National Laboratory System

- **Five-Year Target:** Real-time biosurveillance with a national laboratory system and effective modern point-of-care and laboratory-based diagnostics.
- **As Measured by:** A nationwide laboratory system able to reliably conduct at least five of the 10 core tests on appropriately identified and collected outbreak specimens transported safely and securely to accredited laboratories from at least 80 percent of districts in the country.
- **Country Commitments to Action Package: Leading countries:** South Africa, Thailand, United States



# GHSA: The LRN as a Model

## Prevent

- Biosafety and Biosecurity
- Laboratory Twinning/Mentorship
- Partnerships (e.g. ASLM)

## Respond

- Emergency Operations Center
- Incident Command System

## Detect

- Real-time surveillance networks
- Sample transport/sample sharing
- Standardized electronic data messaging
- Deploy novel assays
- Training: Workforce

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# Why the LRN as a Model?

- **Infrastructure: Database, Communications Systems**
- **Quality Management Systems/Continuous Quality Improvements**
- **Standardized Protocols & Tests for Diverse Matrices**
- **Molecular Diagnostics**
- **Renewed Support of Public Health Infrastructure**
  - **Safe, Secure Laboratories**
  - **Trained Laboratorians**
- **Results that Contribute to Sound Decisions**
- **Standardized Electronic Data Messaging**
- **Established Governance Structure**

# LESSONS LEARNED: EBOLA RESPONSE



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# Ongoing Needs

- Timely Communications from Credible Entities
- Training: Biosafety, PPE donning and doffing, Packaging and Shipping
- Stockpile: PPE
- Standing Up ASLM and APHLN pre-event
- Importance of quickly working at the source of the outbreak
- Importance of surveillance systems in resource poor settings and the connection of the lab and epi teams



# Lessons Learned

- Partnerships: Federal, International, NGOs, Private Sector
- Leverage Existing Systems: LRN, PEPFAR
- Communications:  
<http://vimeo.com/116753697>



# Communications: Labs in Action



Erin Swaney demonstrating sample inactivation to Mark Mergen, Garrick Gillispie, and Wanda Songy,  
*Photo by Andrew Vinyard, Chemist, TX DSHS*

# QUESTIONS/OPEN DISCUSSION



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# Thank you!

Chris N Mangal, MPH  
[chris.mangal@aphl.org](mailto:chris.mangal@aphl.org)

240-485-2769

[www.aphl.org](http://www.aphl.org)



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