The Laboratory Response Network for Bioterrorism (LRN)
Objectives:

Upon completion of this program, the learner will be able to:

1. Participate in the LRN
2. Describe critical aspects of lab preparedness, surveillance, and response for bioterrorism.
3. Explain how clinical laboratories can access State and Local Public Health Labs.
4. Access resources and training about control of bioterrorism
Introduction

Participants should be able to:

- Name the Director of the State Public Health Laboratory in their states
- Access Emergency Contact Information:
  - during regular hours
  - outside of regular hours
Why is the Public Health Laboratory (PHL) Involved?

- **Mandate** by Congress
- **Experience** with Biological Agents of Concern and Outbreak Investigations
- **Link** between Local Laboratory Level and CDC/Federal agencies
Roles of the PHL:

- Disease Identification, and Outbreak Investigation
- Reference Services
- Specialized Testing
- Direct Services
- Environmental Testing
Roles of the PHL:

- Rapid Testing
- Laboratory Improvement
- Applied Research
- Support of Surveillance and Epidemiology Investigations
- Emergency Preparedness and Response
<table>
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<th>Types of Bioterrorist (BT) Events</th>
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<tr>
<td><strong>ANNOUNCED</strong></td>
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<tr>
<td>(Overt)</td>
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<tr>
<td><strong>UNANNOUNCED</strong></td>
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<td>(Covert)</td>
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Characteristics of BT Events

- Increasing Frequency of Cases
- Rare or Non-endemic Disease
- Trouble Identifying Cause of Symptoms
Scenarios

- **Overt Event**
  - Announced
  - Patients Fall ill or Die (Increased Morbidity and Mortality)
  - Microorganisms Unconfirmed
  - Hoaxes Assumed to be Real
Scenarios

- **Covert Event**
  - No Prior Warning - Unannounced
  - Patients Fall ill or Die from Causes of Unknown or Unusual Origin
  - Unusual Cluster(s) of Cases - May be Geographically Distributed
  - Undetermined Causative Agent
Local BT Events
The Laboratory Response Network for BT

- Public and Private Labs
- Test According to Consensus Protocols
- Timely and Accurate Testing and Reporting
- Linked with Local, State, and Federal Agencies
LRN Laboratory Levels

**LEVEL A:** Clinical Labs

**LEVEL B:** Public Health Labs

**LEVEL C:** Typing Labs, Public Health Labs

**LEVEL D:** CDC
LRN Safety & Proficiency Adequate to...

Level D Labs - Work at BSL-4

**Archive.** Perform high level characterization. Probe for universe of agents.

Level C Labs - Work at BSL-3

Rapid identification. **Rule-in** and **Refer**.

Level B Labs - BSL-3 Recommended

Perform susceptibility testing. Isolate. Identify. **Rule-in** and **Refer**.

Level A Labs - Assess Risks for Aerosols - Use BSL-2

Detect early (presumptive cases). **Rule-out** or **Refer**.
Tasks by Capacity

- BT Level A - Rule-out or Refer
- BT Level B - Rule-In and Refer
- BT Level C - Rule-in and Refer
- BT Level D - Confirm, Validate, Archive
Questions to Answer to Create Your Plan

- What is the BT level of my lab?
- Is my lab active in the LRN?
- Where is the nearest higher level lab?
- What guidelines should be followed to package and ship biological agents?
- Whom should I call?
Have a Plan: Level A Labs

- If announced:
  - Notify the FBI, and the PHL.
  - Based on consultation, test &/or refer.

- If unannounced (but suspected):
  - rule-out.
  - If unable to rule-out, call the nearest Level B lab.
Have a Plan: Level A Labs

- Be aware.
- Have a plan, test your plan, and keep it updated.
- Provide training/in-service to your staff.
- Know whom to call.
- Know chain of custody requirements.
- Know shipping requirements.

at a minimum REFER
Action Items

- Review your current protocols and safety practices.
- Incorporate BT plan into your SOP.
- Keep updated.
  - Additional agent protocols.
  - Additional training opportunities (NLTN, professional societies, etc.)
The use of a biological agent for terrorism is a low probability event with very large, potentially devastating consequences.

Be prepared.