Continuing Public Health Laboratory Operations Through Challenging Circumstances

12th National Conference on Laboratory Aspects of Tuberculosis

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CDC TB Continuity of Operations Plan Project

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Alaska late 2018 Earthquake

Nebraska 2019 Flooding

California 2019/2021 Wildfires

Puerto Rico 2020 Earthquakes

COVID-19

Tennessee Tornado 2020

Tennessee/North Carolina Flooding 2021

Louisiana Hurricane Ida 2021
Why is a Continuity of Operations Plan (COOP) Important?

- Identifies essential functions
- Ensures essential functions can be continued throughout, or resumed after, a disruption of normal operations

Important to have in place prior to an emergency and/or disaster to:

- Identify essential personnel and make them aware they are essential
- Create a plan for administration succession
- Pre-determine delegations of authority
- Identify locations, other than the primary facility, that will be used to carry out essential functions
- Identify communication methods (internal and external) in coordination with other agencies
- Identify, protect and make readily available electronic and hard copy documents, references, records, information systems and equipment needed
Project Interest and Goals

- Public Health Laboratories (PHLs) have recently experienced several situations that have disrupted laboratory services:
  - COVID-19 pandemic
  - Natural disasters
  - Other interruption of service events

- Did PHL have a Continuity of Operations Plan (COOP)?

- Was mycobacteriology testing specifically defined as part of the COOP?

- Will mycobacteriology laboratories be prepared for the next event?
Project Plan

- Developed, approved through CDC’s Office of Management and Budget (OMB), and distributed CDC RedCap questionnaire to the CDC DTBE Cooperative Agreement PHL awardees
- Downloaded and analyzed questionnaire responses
- Selected focus groups and conducted virtual platform discussions
- Summarized mycobacteriology laboratory COOP details, gaps, and lessons learned
- Drafting a COOP toolkit
Questionnaire Responses/Analysis

- 44/58 (76%) PHLs responded to the survey
- 5 PHLs responded a COOP was not available
- 6 PHLs responded that their PHL COOP did not identify responsible persons to oversee essential functions of each laboratory section/department in case of an emergency event

*Questionnaire completed by mycobacteriology staff*
Events Within the Past 3 Years that Affected the PHL as a Whole

Select all events that impacted your state/local PHL in the past 3 years (43)

Natural Disaster (14)
  - Natural disaster only, 2
  - COOP Yes (11)
  - COOP No (3)
  - TB Yes (7)
  - TB No (4)

COVID-19 Pandemic (41)
  - Pandemic only, 18
  - COOP Yes (40)
  - COOP No (1)
  - TB Yes (22)
  - TB No (18)

 Interruption of Service (18)
  - COOP Yes (16)
  - COOP No (2)

Other (3)
  - Other

Supply Chain Disruptions (1)
  - Supply Chain Disruptions

Civil Disturbance (1)
  - Civil Disturbance

Emergency Closures Due to Weather (1)
  - Emergency Closures Due to Weather

Civil Disturbance (1)
  - Civil Disturbance

<table>
<thead>
<tr>
<th>Event</th>
<th>Count (n)</th>
<th>Details</th>
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<tbody>
<tr>
<td>Equipment Failure/Maintenance</td>
<td>12</td>
<td>5 PHLs activated COOP</td>
</tr>
<tr>
<td>Winter/Ice Storms</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Facility Issues</td>
<td>8</td>
<td>3 PHLs activated COOP</td>
</tr>
<tr>
<td>COVID-19</td>
<td>8</td>
<td>3 PHLs activated COOP</td>
</tr>
<tr>
<td>Flooding</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Hurricane</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Earthquake</td>
<td>1</td>
<td>1 PHL activated COOP</td>
</tr>
<tr>
<td>Fire</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>Riots</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>HPLC media, MycoPrep backordered</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1 PHL activated COOP</td>
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PHL COOP and Referral Testing Availability

PHL identified an organization for referral of mycobacteriology testing in the COOP (32/43, 74%)

- Informal agreement (18)
- Formal agreement (14)
- PHL (19)
- Commercial Lab (11)
- Academic Institution (2)
Frequency of COOP Review for the Mycobacteriology Laboratory Section (n=43)
Focus Groups Organized by Interruption of Service Events (ISE)

- Conducted in virtual setting
- ISE categories informed by COOP survey
- Interest in participation email sent to PHL survey responders
- ≤ 4 PHLs per group with some events having 2 or more groups
- Focus groups included PHLs with annual specimen volumes of low, medium, and high
Focus Group Discussions

Questions
• Type of event and how impacted PHL TB laboratory testing
• Lessons learned
• Any revisions to COOP
• Best practices to prepare for future events
• Other suggestions

Outcomes categorized
• General and best laboratory practices
• Considerations for planning, before, during, and after an event
  o COOP availability; TB included
  o Referral laboratory plan
  o Submitters/providers
  o Specimens and cultures
  o Laboratory Information Management System (LIMS)/reporting
  o Test methods and algorithms
  o Equipment
  o Resources
Potential Outcomes of the Project

- Encourage PHLs to identify a referral laboratory for mycobacteriology testing, if not available
- Communicate the importance of developing a COOP if one is not available
- Develop a resource (toolkit, job aids)
- Draft a manuscript/white paper to highlight importance of COOP for mycobacteriology testing and lessons learned
- Plan a future webinar
PHL TB Panel: Interruption of Service Events (ISEs) Presentations
<table>
<thead>
<tr>
<th>PHL Panelists</th>
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<tbody>
<tr>
<td>Jennifer Lemer, MLS(ASCP) CM</td>
<td>• North Dakota Public Health Laboratory</td>
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<tr>
<td>Latricia Lewis</td>
<td>• City of Houston Public Health Laboratory</td>
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<tr>
<td>Lisa Onischuk, MPH, MT(ASCP)</td>
<td>• New Mexico State Public Health Laboratory</td>
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<tr>
<td>Yvette Vergnetti, MT(ASCP)</td>
<td>• Alaska State Public Health Laboratory</td>
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<tr>
<td>Ryan Ortiguerra, PhD</td>
<td>• Washington State Public Health Laboratory</td>
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Q & A Session

PHL Panelists & Attendees
Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.