

Laboratory Testing

OVERVIEW

Laboratories test human, animal, and environmental samples for potential contamination by a variety of biological and chemical agents. The Multnomah County Public Health Laboratory (MCPHL) and the Oregon State Public Health Laboratory (OSPHL) are part of Oregon’s Laboratory Response Network (LRN), developed to provide detection and identification of the biological agents of bioterrorism (see Appendix Ha for more information on the LRN). The Department of Environmental Quality Laboratory (DEQL) provides assistance in the detection and identification of chemical agents. These Oregon laboratories are not 24-hour facilities but are available 24/7 for emergencies. These laboratories also have access to other laboratories, including the Center for Disease Control.

OBJECTIVES

- Provide expert consultation on the collection, handling, transport, and identification of human and environmental samples.
- Test human and/or environmental samples to provide timely, accurate, and thorough laboratory assessments of biological and/or chemical agents in a public health emergency.
- Use laboratory findings to develop appropriate prevention and response strategies.

ACTIVATION



ADDITIONAL RESOURCES

Laboratory support of an incident or event is initiated and planned to meet Incident Commander approved incident objective(s).

For More Information:

Tab G, Risk Communication
 Tab N, Tactical Communications

URLs:

https://lrn.hr.state.or.us/home/h_prepare.cfm
<http://www.bt.cdc.gov/labissues/>

Additional References:

Laboratory Support

TASK	REFERENCE	COMPLETED
<p>Clarify Laboratory's Role. Government and some commercial medical and environmental laboratories normally serve as cooperating organizations that support the response organization. However, in an incident that requires most of a lab's capacity, labs may become part of the Incident Commander's (IC's) response organization. For a major event requiring significant laboratory support, the Oregon State Public Health Laboratory (OSPHL) Director normally coordinates and arranges testing with state and local laboratories in support of the response.</p> <p>Based on the type of testing to be performed, someone from either the OSPHL, Multnomah County Public Health Laboratory (MCPHL), or Department of Environmental Quality Laboratory (DEQL) is designated to supervise laboratory operations supporting the incident. An Agency Representative (AR) may be required to be a single point of contact and the decision-making authority to the response organization.</p> <p>The IC generally defines laboratory support through incident objectives executed by the Operations, Planning, and Logistic Chiefs. Their respective roles are to execute the sampling and analysis plan, forecast needs and develop protocols, and identify and obtain laboratory services. The Finance Section Chief arranges for needed contracts. The Liaison Officer may need to identify and work with ARs of laboratories.</p>	<p>Ha</p> <p>Tab A</p>	
<p>Activate Laboratory Support. When incident objectives require laboratory support, it is activated through the leadership of the appropriate laboratory(s). Close and timely consultations must quickly lead to shared expectations of each of the following aspects of a sample analysis program:</p> <ol style="list-style-type: none"> 1. Methods and Processes Agreement. The Director (or designate) of the OSPHL, MCPHL or DEQ come to an agreement with the IC (or designee) about the proper methods and processes required to collect, transport, and handle samples. All samples are accompanied by a properly completed chain-of-custody form. 2. Collection, Packaging, Labeling. Using appropriate safety precautions, samples are collected, packaged, and labeled according to the guidelines of the respective laboratory or higher agreed-upon standards. 3. Chain of Custody, Security. For human and environmental samples suspected to be of a biological nature, contact the OSPHL. After hours, they can be contacted through the Oregon State Department of Human Services (DHS), Office of Acute and Communicable Diseases. The on-call epidemiologist will contact the OSPHL's on-call staff person for further consultation. For environmental samples suspected of needing chemical 	<p>Ha</p> <p>Tab A</p>	

Tab H: Laboratory Testing

<p>testing, contact the DEQL during normal working hours. After hours, contact the Office of Emergency Management (OEM), and they will contact the DEQ's on-call personnel.</p> <p>Security procedures are followed from collection to post-analysis storage.</p> <p>4. Laboratory Reports. The laboratory will provide both written and verbal test results (both preliminary and definitive) to the IC (or designee).</p>		
<p>Communicate.</p> <ol style="list-style-type: none"> 1. IC provides key contact information to the respective laboratory. 2. All laboratories make key contact information available to the IC. 3. When appropriate, interim and final results are communicated via verbal and written formats. 	<p>Tab G</p>	
<p>Document.</p> <p>Standard ICS and OSPHL/MCPHL/DEQ laboratory documentation are used in all incidents. An OSPHL sample chain of custody form is attached as Appendix H2.</p>	<p>Hb</p>	

Appendices

Appendix Ha - Laboratory Response Network

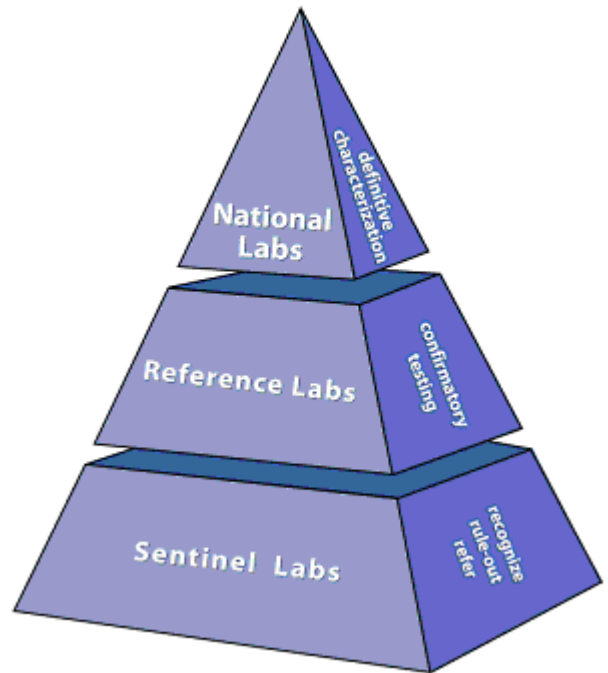
Appendix Hb – Chain of custody form

Appendix Ha: The National Laboratory Response Network

Laboratory Response Network (LRN) labs are designated as either national, reference, or sentinel. Designation depends on the types of tests a laboratory can perform and how it handles infectious agents to protect workers and the public.

National labs include the Center for Disease Control and Prevention (CDC) and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). They have unique resources to handle highly infectious agents and the ability to identify specific agent strains. These laboratories have the ability to provide definitive characterization of an unknown agent.

Reference labs, sometimes referred to as “confirmatory reference,” can perform tests to detect and confirm the presence of a threat agent. These labs ensure a timely local response in the event of a terrorist incident. Rather than having to rely on confirmation from labs at CDC, reference labs are capable of producing conclusive results. This allows local authorities to respond quickly to emergencies.



The Oregon State Public Health Laboratory (OSPHL) is the only reference laboratory in Oregon. The Department of Environmental Quality Laboratory (DEQL) is the laboratory in Oregon designated to test for and identify chemical agents related to chemical terrorism.

Sentinel labs represent the thousands of hospital-based and other microbiology laboratories that are on the front lines. Sentinel labs have direct contact with patients. In an unannounced or covert terrorist attack, patients provide specimens during routine patient care. Sentinel labs could be the first facility to spot a suspicious specimen. A sentinel laboratory’s responsibility in Oregon is to refer a suspicious sample to the OSPHL.

The Oregon LRN is comprised of these “sentinel” laboratories around the state of Oregon.

Appendix Hb: **OREGON STATE PUBLIC HEALTH LABORATORY**
LABORATORY RESPONSE NETWORK (2 of 2 pages)

CHAIN OF CUSTODY

CASE ID: _____ **DATE:** _____ **Page 2 of** _____

Received By (Print/Sign)	Date:	Time:
Organization:		
Reason:		
Received By (Print/Sign)	Date:	Time:
Organization:		
Reason:		
Received By (Print/Sign)	Date:	Time:
Organization:		
Reason:		
Received By (Print/Sign)	Date:	Time:
Organization:		
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