

# Definition of a State Public Health Laboratory System

Definition: “An alliance of laboratories and other partners within a state that supports the ten essential public health services under the aegis of the state public health laboratory. The system members and stakeholders operate in an interconnected and interdependent way to facilitate the exchange of information, optimize laboratory services, and help control and prevent disease and public health threats.”

The State Public Health Laboratory System (SPH Laboratory System) consists of all the participants in public health testing, including those who initiate testing and those who ultimately use the test results. The SPH Laboratory System is part of the larger state public health system. The System includes individuals, organizations and agencies that are involved in assuring that laboratory data support the 10 Essential Services of Public Health. The concepts of an SPH Laboratory System are also embodied in the APHL Core Functions and Capabilities of State Public Health Laboratories. These documents are available on the APHL website at [www.aphl.org](http://www.aphl.org). Within the SPH Laboratory System are primary stakeholders who are directly involved in creating and using laboratory data. Additional stakeholders include those who are concerned with complementary Essential Services, such as Training and Education and Public Health Related Research. A successful National Laboratory System is dependent on the creation of fully integrated and coordinated networks in every state. The goals of the National Laboratory System are to support voluntary, interdependent partnerships of clinical, environmental, agricultural and veterinary laboratories through public-private collaboration, for assurance of quality laboratory services and public health surveillance.

The SPH Laboratory System should assure that:

1. public health threats are detected and intervention is timely
2. stakeholders are appropriately informed of potential threats
3. reportable conditions are monitored in a comprehensive statewide system

4. specimens and isolates for public health testing are sufficient to provide comprehensive public health surveillance and response
5. public health laboratory data are transmitted to appropriate state and federal agencies responsible for disease surveillance and control.

The state public health laboratory (SPHL) has a leadership role in developing and promoting the SPH Laboratory System through active collaboration with stakeholders, including epidemiologists; first responders; environmental professionals in water, food and air surveillance activities; private clinical and environmental laboratories; and local public health laboratories. The SPHL provides leadership to assure that essential and state-of-the-art laboratory services are provided and that clinical laboratories that perform public health testing on reportable infectious diseases submit results to the public health surveillance system using national testing guidelines. To provide leadership, the SPHL monitors essential components of the SPH Laboratory System, such as completeness of reporting and accuracy of laboratory testing results. The SPHL also assures that accurate results are reported in a manner that is appropriate and sufficiently timely for effective public health response. An effective SPH Laboratory System requires proactive leadership by the SPHL to monitor public health testing processes by clinical and environmental in-state laboratories. To assure that the SPH Laboratory System is effective, the SPHL should at a minimum:

1. maintain an integrated information system that includes all stakeholders that rely on accurate laboratory data
2. employ a full-time public health laboratory system coordinator
3. create a standing public health laboratory advisory committee
4. provide an interactive website or other electronic system to maintain regular communication channels for system partners.

*Developed by a subcommittee of the APHL Laboratory Systems & Standards Committee. Adopted by the APHL Board May 24, 2007; amended June 2010.*