



## DELAWARE PUBLIC HEALTH LABORATORY

### What is the DELAWARE PUBLIC HEALTH LABORATORY?

The Delaware Public Health Laboratory (DPHL) is a vital testing and diagnostic arm of the Division of Public Health. Using laboratory expertise and state-of-the-art technologies, the DPHL provides accurate and timely analytical data, information and consultation to protect and enhance the health of the people of Delaware. The DPHL tests for chemical and biological threats to health and safety and monitors the emergence of drug-resistant bacteria to prevent the spread of infection and save lives. Health care providers depend on the DPHL's test results to inform and treat their patients. Environmental health professionals depend on the DPHL's results to inform and protect Delawareans.

The DPHL was established in April 1899 at the Delaware College campus in Newark (now the University of Delaware).

### What services are provided?

The DPHL provides a wide range of services for the citizens and communities of Delaware. The DPHL houses several laboratory sections performing specific testing to meet these needs.

- 1.) Environmental Analytical – This laboratory tests drinking water for bacteria and chemicals to ensure that water is safe to drink in support of the U.S. EPA Safe Drinking Water Act and water-related public health investigations. Elevated chemical levels may increase health risks in some individuals. The presence of total coliforms or *E. coli* may indicate contamination of the water source and may increase the risk of gastrointestinal illnesses in some individuals. Samples from private wells are tested for pH, alkalinity, iron, sodium, calcium hardness, nitrate, nitrite, and sulfate as well as total coliforms and *E. coli*. Public drinking water supplies are tested for a range of inorganic and organic chemicals, trace metals, total coliforms, and *E. coli*.
- 2.) Microbiology – This laboratory identifies sexually transmitted diseases such as gonorrhea and chlamydia in urine and other fluid samples. Syphilis and HIV disease are tested using blood serum samples. This lab also tests for Tuberculosis (TB) and bacteria such as *Salmonella*, *Shigella*, and *E. coli* which are associated with foodborne illnesses. An increasingly important role of this laboratory is detecting drug-resistant bacteria to identify the development of newly resistant strains. Tests for environmental and clinical samples for agents of bioterrorism, such as *Bacillus anthracis*, *Yersinia pestis* (plague), and *Francisella tularensis* are also performed for preparedness and emergency response outbreak.

**24/7 Emergency Contact Number: 1-888-295-5156**

Revised: 01/2016

Page 1 of 2



- 3.) Molecular Virology –This laboratory provides molecular, serological, and cultural diagnosis of infectious diseases. Samples include respiratory swabs, stool, blood, CSF, genital swabs, and animal brain tissue. Examples of testing include Influenza Real Time PCR and subtyping, Norovirus PCR, West Nile Virus/EEE/SLE surveillance, viral culture, and rabies testing. This laboratory also performs influenza pyrosequencing and identification as well as rabies testing.
- 4.) Newborn Screening –This laboratory tests for genetic and metabolic diseases in every Delaware newborn to prevent mental retardation, serious illness, and even death. Babies born in Delaware receive a heel stick, through which a blood sample is obtained on a special filter paper card. The blood is analyzed for 39 different genetic and metabolic disorders including: cystic fibrosis, congenital adrenal hyperplasia, congenital hypothyroidism, sickle cell disease, and other major hemoglobinopathies, galactosemia, and amino acid disorders (e.g. phenylketonuria (PKU)) and maple syrup urine disease.

**Can the public deliver samples?**

No, the public should not deliver samples to the DPHL. Patient samples are collected at the direction of health care providers or epidemiologists investigating disease outbreaks. Environmental samples are collected by certified collectors. Each day, DPHL's courier system transports samples from numerous health care provider sites throughout the state. Private well water samples can be dropped off to DPHL during routine operating hours only.

**Is the Delaware Public Health Laboratory certified?**

Yes, the Delaware Public Health Laboratory is certified by the Centers for Medicaid and Medicare Services (CMS) under CLIA (Clinical Laboratory Improvement Act); the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA). DPHL is also a Bioterrorism Standard Level Reference laboratory and Level 2 Chemical Laboratory in the Centers for Disease Control and Prevention's (CDC) Laboratory Response Network (LRN). DPHL is a member of the EPA's Environmental Response Laboratory Network (ERLN) and Water Laboratory Alliance (WLA). DPHL is also a member of the FDA's Food Emergency Response Network (FERN).

**Where is the Lab located?**

The Delaware Public Health Laboratory is located at 30 Sunnyside Rd., Smyrna, Delaware 19977. It is on the campus of the Delaware Hospital for the Chronically III, on the corner of Route 13.

**For more information:**

Call the Delaware Public Health Laboratory at 302-223-1520. Routine operating hours are 8:00 a.m. to 4:30 p.m. weekdays.  
The website is: <http://www.dhss.delaware.gov/dhss/dph/lab/labs.html>  
The DPHL Fax is 302-653-2877.

**24/7 Emergency Contact Number: 1-888-295-5156**

Revised: 01/2016

Page 2 of 2