

ADMINISTRATION

- Provides laboratory leadership and personnel management
- Development of current and future applications of the Laboratory Information Management System
- Maintains a comprehensive safety program for the SPHL and other Missouri laboratories
- Development and maintenance of Quality Systems
- Ensures CLIA compliance
- Manages procurement, commodity, maintenance contracts and purchasing cards
- Manages accounts receivable and payable, and revenue generation
- Reviews federal aid applications and memorandums of understanding
- Tracks expenditures and prepares operating budget requests
- Performs cost analyses, grants management, legislative reviews and fiscal note preparation
- Compiles statistical workloads and prepares special reports
- Prepares and ships newborn screening blood spot forms to birthing centers, clinics and midwives for the return of laboratory specimens

EMERGENCY RESPONSE OUTREACH & TRAINING

- Develops emergency plans for the State Public Health Laboratory
- Coordinates with external partners to provide integrated laboratory services and response to emergencies, natural or intentional
- Established and maintains the Missouri Laboratory Response Network (MOLRN)
- Develops outreach and training activities for clinical laboratories, local public health agencies and first responders
- Coordinates with Federal agencies to participate in the National Laboratory Response Network (LRN)

State Public Health Laboratory Website:
www.dhss.mo.gov/Lab

The State Public Health Laboratory may also be contacted via E-mail:

State Public Health Laboratory

101 North Chestnut Street

Jefferson City, MO 65101

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EMERGENCY RESPONSE OUTREACH AND TRAINING UNIT

Missouri State Public Health Laboratory

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*“ PROTECTING THE PUBLIC
THROUGH SCIENCE ”*



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SPHL

MISSOURI
STATE PUBLIC
HEALTH
LABORATORY



TELEPHONE: 573-751-3334

**DEPARTMENT OF HEALTH AND
SENIOR SERVICES 24 HR HOTLINE**

800-392-0272

OPERATIONS

The Missouri State Public Health Laboratory (SPHL) located in Jefferson City, is dedicated to the promotion, protection and assurance of the health of Missouri's citizens by providing a wide range of laboratory and analytical services. These services include laboratory testing for infectious diseases, genetic disorders and environmental concerns, both in support of public health programs, and as a reference laboratory performing confirmatory or specialized procedures. As the only Centers for Disease Control and Prevention Laboratory Response Network (LRN) laboratory for the State of Missouri, the Missouri SPHL provides scientific expertise and managerial leadership to meet the challenges in clinical and environmental laboratory disciplines and in the development of public health policy. Annually over 5 million tests (many required by law) are performed by the Missouri State Public Health Laboratory.

LABORATORY UNITS

MICROBIOLOGY

- Examines samples for the presence of enteric pathogens such as Salmonella and Shigella
- Examines samples for the presence of scabies, intestinal and blood parasites
- Identifies unusual and dangerous pathogenic bacteria received from other laboratories
- Examines samples for *Bordetella pertussis* (Whooping Cough)
- Serves as an advanced reference laboratory for detection and the identification of bacterial bioterrorism agents
- Collects and disseminates surveillance data on infectious bacterial diseases

ENVIRONMENTAL BACTERIOLOGY

- Tests public and private drinking water supplies and recreational waters for the presence of total Coliform and *Escherichia coli* bacteria
- Tests food suspected of causing disease
- Inspects and approves water and milk testing laboratories
- Tests environmental samples for biological terrorism agents

VIROLOGY

- Performs Hepatitis A and Hepatitis B testing to identify cases of viral Hepatitis
- Tests serum and cerebral spinal fluid to identify infections with West Nile and related Arboviruses
- Performs Norovirus (Norwalk-like virus) Real-time PCR testing to identify outbreaks of viral gastroenteritis
- Performs molecular testing to identify cases of respiratory disease (such as H1N1) or rash illness
- Examines animal brain tissue for the presence of rabies virus
- Performs virus culture testing for surveillance of circulating viruses such as Influenza, Adenovirus, Enteroviruses and Cytomegalovirus
- Performs year-round influenza testing and disseminates surveillance data on viral disease

IMMUNOLOGY

- Performs syphilis testing to detect Treponemal antibodies
- Performs the EA and Western Blot for the presence of antibodies to HIV-1 and HIV-2
- Performs Nucleic Acid Amplification testing on swab or urine specimens for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*

CHEMISTRY

- Conducts lead analysis of blood samples collected from children
- Performs various inorganic and organic chemical analyses on private water supplies
- Conducts heavy metal analyses on samples obtained from household plumbing supplied by public water
- Conducts radiological analyses on water and various other environmental and food materials
- Conducts lead analysis on soil, water, paint samples and dust wipes collected from homes of children with elevated blood lead levels
- Conducts analyses of human serum samples for various chemicals collected in response to a chemical terrorism event
- Conducts biomonitoring analyses and studies of various chemicals resulting from human chemical exposures

NEWBORN SCREENING

- Performs laboratory screening on dried blood spots for 67 mandated genetic, metabolic and endocrine disorders on all infants born in Missouri
- Analyzes whole blood specimens to detect sickle cell disease and other hemoglobin disorders

TUBERCULOSIS

- Processes clinical specimens and reference cultures for the presence of mycobacteria
- Performs AFB smear and culture, identification, susceptibility testing and genotyping for *Mycobacterium tuberculosis* complex
- Identifies clinically significant mycobacteria other than *M. tuberculosis*
- Utilizes high performance liquid chromatography and genetic probe technology to identify mycobacteria

CENTRAL SERVICES

- Prepares glassware for use in various units
- Sterilizes biological waste
- Receives and stores general supplies
- Assembles and ships specimen kits to hospitals, laboratories and public health offices for the submission of laboratory specimens
- Monitors and tracks the state-wide courier system activities

POST ANALYTICAL REPORTING TEAM

- Handles all specimen and sample data entry for every analytical/testing unit of the Laboratory
- Captures, records and archives the clinical demographics and result of each sample/specimen submitted for testing
- Works closely with testing units and liaisons with providers to assure timely recording and dissemination of results
- Completes additional Quality Assurance checks on each test result prior to dissemination

