

**STATE OF HAWAII  
DEPARTMENT OF HEALTH  
ENVIRONMENTAL HEALTH ADMINISTRATION  
STATE LABORATORIES DIVISION  
FUNCTIONAL STATEMENT**

Administers a statewide laboratories program which conducts analysis in support of laboratory preparedness programs for bioterrorism and chemical terrorism, environmental health and communicable disease monitoring and control activities, and investigations and public health related research; sets standards; and monitors for quality laboratory services statewide.

Assesses laboratory training needs statewide and coordinates local training programs with those of other states and federal agencies.

Provides diagnostic and consultative laboratory services to physicians, institutions and various federal, state, county and city agencies for the diagnosis and control of disease.

Provides consultative, analytical and other related laboratory services to departmental programs concerned with environmental and sanitation safeguards.

Evaluates and approves or licenses laboratories, licenses laboratory directors and technicians; and provides research, investigations and related laboratory services in the field of public and environmental health.

Administers and coordinates the professional and non-professional functions of all of the laboratory services.

Plans and conducts programs and research activities, establishes policies, and trains and supervises the personnel in carrying these to completion.

Coordinates the laboratory programs with the planning and programs of other public, semi-public and private health agencies.

Provides consultation, technical advice and financial management to the District laboratories on the neighbor islands and the Department's other laboratories.

Coordinates the administrative rules making activities of the branches.

Establishes, updates and provides guidance for the quality assurance procedures for compliance with the federal provisions of the Clinical Laboratory Improvement Act of 1988 (CLIA-88). Ensures the accuracy of all laboratory results. Provides technical and consultative services to Department of Health programs and other laboratories within the state.

**Clerical Services**

Provides clerical services to the SLD chief and division staff.

**Central Services Staff**

The Central Services Staff (CSS) is responsible for the maintenance and operations of the laboratory facility. The responsibility includes formulating contract specifications for service contracts and monitoring the performance of the contractors for compliance with contract terms for the maintenance and repair of the building systems including, but not limited to, grounds keeping; custodial services; refuse disposal; maintenance of all plumbing, electrical, and mechanical equipment; fire alarm, fire extinguisher and sprinkler systems; elevators; air handling; emergency generators; diesel fuel storage; electrical and propane gas systems; deionized water system; and acid waste neutralization system.

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Takes daily readings of the various building systems and arranging for service and repair of any system that is not performing according to operating standards.

Takes responsibility for the operations and maintenance of the loading dock area.

Coordinates deliveries of laboratory samples and supplies and deliveries by soft drink and snack vending machine operators.

Assists branches in the preparation of microbiological media and reagents; decontaminates infectious wastes; and washes glassware.

Manages the main supply storage area.

Manages and coordinates the central shipping and receiving area.

**Laboratory Preparedness And Response Branch (LPRB)**

The LPRB provides 24/7 laboratory analytical services to detect, identify and confirm potential infectious agents used in BT (Bioterrorism), pathogens and toxins associated in outbreaks and other emerging infectious diseases.

Evaluates tests related to the early and rapid detection of BT and other infectious disease agents. Sets standards and monitors for quality laboratory services in the LPRB and the Division for the detection of BT and other infectious agents statewide. Assesses training needs for clinical and veterinary laboratories that participate in the Hawaii Laboratory Response Network (HI LRN) and provides training for BT preparedness and laboratory response.

Performs food safety testing locally and as part of the national Food Emergency Response Network (FERN).

Plans and develops laboratory response that includes Environmental Health Analytical Services Branch (EHASB) and Medical Microbiology Branch (MMB) resources.

Provides diagnostic and consultative laboratory services to physicians, institutions, federal, state, county and city agencies for the rapid diagnosis and control of diseases affecting public health.

Collaborates with the various federal and state agencies including law enforcement in support of the State laboratories preparedness programs for bioterrorism, chemical terrorism, and other public health emergencies.

Maintains Clinical Laboratory Improvement Act (CLIA) certification, International Organization for Standardization (ISO) 17025 accreditation, select agent certification, biosecurity plans and clearances for the BT Response Laboratory operations. Participates in a statewide BT response network which includes other DOH, State, counties and other federal programs.

**Chemical Response Section**

Provides chemical analytical services for the testing of clinical specimens, including blood and urine, for agents used in chemical terrorism activity.

Provides chemical analytical services for the identification of environmental specimens suspected of use in chemical terrorism.

Provides chemical analytical services for the testing of various specimens, both clinical and environmental, for detection of toxic levels of compounds, elements or metals which

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may pose a significant public health concern.

**Biological Response Section**

Provides rapid detection, identification and confirmation of bacteria, viruses and toxins that can be associated with a BT event or other public health emergency.

Provides diagnostic support of environmental health and communicable disease surveillance and monitoring activities.

Provides timely laboratory response to outbreak-related emergencies for diseases such as West Nile Virus, Norovirus, Murine typhus, Severe Acute Respiratory Syndrome (SARS) and influenza.

Provides laboratory support for epidemiologically-based serosurvey for public health diseases.

Provides gene sequence analyses of rare or biochemical inert or hard-to-identify microorganisms and genetic analyses using molecular sub typing methods in support of outbreak investigations.

**ENVIRONMENTAL HEALTH ANALYTICAL SERVICES BRANCH**

Provides chemical and microbiological analytical services to departmental programs and to various federal, state and county agencies concerned with air pollution, drinking water, recreational waters, water pollution, and food including, but not limited to, raw agricultural commodities, dairy products and shellfish.

Evaluates and certifies laboratories involved in regulatory monitoring for contaminants in drinking water and dairy products. Certified by the Environmental Protection Agency for the analysis of drinking water and by the Food and Drug Administration for the analysis of dairy products.

Regulates and certifies laboratories performing dairy product analysis and both chemical and microbiological drinking water analysis.

Plans and conducts programs and research activities in assigned.

**Environmental Microbiology Quality Assurance**

Administers the State Drinking Water Certification Program for Microbiology under the Safe Drinking Water Act, Public Law 23-523, and HAR, Chapter 11-20 and certifies the mainland and Hawaii State laboratories in the State, as needed, analyzing drinking water for regulatory purposes.

Administers the statewide certification of analysts in milk laboratories where the examinations required by HAR, Title 11, Chapter 15 and the Grade A Pasteurized Milk Ordinance are performed. Establishes updates and provides guidance for quality assurance plans to ensure that routinely generated analytical data are scientifically valid and defensible. Works with the Environmental Microbiology Section to ensure adherence to the Section's quality assurance plans.

Provides technical and consultative services to Department of Health programs and other laboratories within the State.

**Chemical Quality Assurance and Special Services Staff**

Administers the State Drinking Water Laboratory Certification Program for Chemistry under the Safe Drinking Water Act, Public Law 23-523 and HAR, Chapter 11-20 and

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certifies the mainland and Hawaii State Laboratories in the State, as needed, analyzing drinking water for regulatory purposes. Works with other states, federal agencies and private laboratories with regard to environmental laboratory certification.

Provides forensic drug analytical services and administers program for analysis of alcohol in breath, blood and other bodily substances. Licenses substance abuse testing laboratories and medical review officers pursuant to HAR, Chapter 11-113. Responsible for the Driving Under the Influence (DUI) program established pursuant to HAR, Chapter 11-114. Responsible for the formulation of amendments to and conducting public hearings on proposed amendments to the administrative rules.

Works with the Branch programs to establish quality assurance procedures and ensure that data generated by these sections are scientifically valid and defensible. Provides assistance to establish and validate regulatory analytical methods.

Provides technical and consultative services to DOH programs and other laboratories within the State.

**Clerical Services**

Provides clerical services to the branch chief, section supervisors, unit supervisors and professional staff.

**Air Quality Monitoring Section**

Coordinates and administers air surveillance activities through a statewide electronic system of remote-site state and national air monitoring networks.

Implements and completes air monitoring objectives as agreed to with the Environmental Protection Agency's Section 105 Air Grant. Operates and maintains air monitoring equipment, including but not limited to, monitors, calibration, meteorological, computer and telecommunication equipment.

Provides technical and laboratory support services to the Department's air program.

Validates air monitoring procedures and data; insures compliance with state and federal regulations and quality assurance procedures.

**Chemical Analysis Unit**

Provides analytical laboratory support services for the Department's air program including evaluating the levels of hazardous air pollutants. Provides qualitative and quantitative identification of air pollutants. Validates air monitoring data. Performs quality assurance functions as mandated by state and federal regulations.

**Electronic Maintenance and Support Unit**

Operates, maintains and repairs air monitoring instrumentation, data acquisition, and computer and telecommunication network for the Department's air program. Maintains the inventory of parts and supplies necessary for the continued operation of all monitoring systems. Designs, develops and troubleshoots electronic circuiting, as required. Provides quality assurance/control services for

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monitoring equipment on Prevention of Significant Deterioration, New Source Performance Standards, and Continuous Emissions Monitoring programs.

**Drinking Water Section**

Provides chemical analytical services, using EPA-approved methodologies, on drinking water samples for purposes of monitoring for compliance with the federal Safe Drinking Water Act.

Provides technical, analytical, and consultative support to Department of Health programs regarding various environmental issues that affect drinking water.

Provides technical and consultative services to DOH programs and other laboratories within the State.

**Water Pollution Section**

Provides chemical analytical services, using generally accepted methodologies, for environmental samples, including surface water, marine water, wastewater, influent and effluent sewage treatment plant samples, sediments and biota.

Provides analytical services to monitor for compliance with the National Pollution Discharge Elimination Systems permits at wastewater treatment plants and other treatment facilities.

**Food Section**

Analyzes foods, drugs, food products and milk for pesticides, adulterations, contamination, misbranding, and for other control purposes, utilizing FDA-approved methodologies, and certifies results to appropriate agencies.

**Environmental Microbiology Section**

Provides microbiological analytical services to departmental programs and to various federal, state and county agencies concerned with drinking water, water pollution, and food products.

Provides technical and consultative services to the Department's district health laboratories on the neighbor islands and to all other environmental laboratories in the State.

Supports the Department's drinking water program by performing microbiological examinations required by the federal Safe Drinking Water Act and HAR, Chapter 11-20.

Performs microbiological examinations on non-potable waters, including recreational beach water, streams and rivers, and sewage and waste to control pollution and safeguard public health by determining compliance with the State Water Quality Standards.

Conducts quality control tests on all media and supplies used by the central laboratory for drinking water and water pollution programs.

Conducts training courses in water microbiology for all laboratory analysts from all laboratories in the State seeking certification for analyzing drinking water.

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Performs microbiological examinations of shellfish grown locally for compliance with HAR, Chapter 11-35

Examines foods implicated in food poisoning outbreaks for the presence of pathogenic organisms associated with human illness.

Examines bottled water samples and food samples for compliance with sanitary requirements of the USPHS/FDA.

Prepares microbiological media and reagents.

**MEDICAL MICROBIOLOGY BRANCH**

Provides diagnostic, consultative and reference laboratory related services to the programs of the Department, other state agencies, private physicians, institutions and other facilities in the State, to assist in the diagnosis and control of communicable diseases. Conducts research and investigations on laboratory methods related to microbiological agents and clinical chemistry conditions related to the field of public health.

Provides clerical services to the branch chief, section chiefs, unit chiefs and professional staff.

**Bacteriology & Parasitology Section**

Provides identification services for bacterial pathogens for programs of the Department.

Confirms or completes findings of other laboratories unable to perform more definitive and complex laboratory procedures on organisms of interest to the Department.

Provides specialized laboratory services for information on key characteristics of bacterial and parasitological agents of interest to the Department's programs. Conducts studies based on serological differences in these organisms to provide epidemiological information.

Provides resources for the laboratory services required in epidemiological surveillance studies.

Confirms specimens of isolates sent to the Department in compliance with HAR, Chapter 11-156.

Prepares microbiological media and reagents.

**Bacteriology and Parasitology Unit**

Provides confirmation of specimens submitted under HAR, Chapter 11-156, such as Corvnebacterium diphtheriae, Haemophilus influenzae B, Listeria monocytogenes, Neisseria gonorrhoea, PPNG, and Neisseria meningitidis.

Confirms or completes findings of other laboratories lacking the resources to conduct specialized procedures on isolates of significance to the Department.

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Provides resources for the laboratory services required in epidemiological surveillance studies.

Provides Salmonella and Shigella serological typing services to identify enteric organisms involved in outbreaks, and provide epidemiological data on tracking of these organisms. Provides characterization and confirmation of typhoid isolates.

Provides laboratory confirmation on consultative services on enteric parasites to programs of the Department and other laboratorians.

Provides confirmation of specimens submitted under HAR, Chapter 11-156, such as Campylobacter spp., Vibrio spp., Salmonella spp., Shigella spp., and Yersinia spp.

**Bacterial Serology Unit**

Performs Standard Test for syphilis (STS) for prenatal diagnostic and reference testing.

Performs treponemal specific STS to confirm all positive sera submitted in accordance with HAR, Chapter 11-156.

Performs other serological tests for the detection of antibodies against bacterial and parasitological agents, such as Toxoplasma gondii and Leptospira spp.

**Mycobacteriology Section**

Examines sputa and other appropriate specimens for the presence of Mycobacterium spp.

Consults with other laboratories on the isolation, identification and drug susceptibility of all Mycobacterium spp.

**Virology Section**

Provides diagnostic laboratory services for the isolation and identification of viruses of public health significance.

Provides diagnostic laboratory services for the serological evidence of infection with viral, rickettsial and chlamydial agents of public health significance.

Performs antigen detection procedures to demonstrate the presence of viral and chlamydial agents.

Provides consultative and reference laboratory services to programs of the Department, other government agencies, private physicians and institutions.

**Viral Isolation and Antigen Detection Unit**

Provides isolation and identification of viral agents of public health importance.

Provide laboratory surveillance data and strain characterization information on influenza to departmental programs and the World Health Organization.

Performs antigen detection procedures to demonstrate the presence of viral and chlamydial agents.

Provides consultative and reference laboratory services to departmental programs, other governmental agencies, private physicians and institutions.

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**Viral Serology Unit**

Performs or assists in providing serological tests to demonstrate the presence of antibodies to viral, rickettsial and chlamydial agents of public health significance such as HIV, Hepatitis B, rubella, rubeola, and typhus.

Provides consultation and reference laboratory services to other governmental agencies, private physicians and institutions in areas unique to viral serology.

Provides laboratory support for epidemiologically based serosurveys of the State's population to determine the presence and effect of viral, rickettsial or chlamydial agents.