

Abstract

Massachusetts is the fourteenth most populous state in the nation, with over 6.5 million people residing in 351 cities/towns. Only five cities have populations greater than 100,000, while approximately 270 have populations less than 20,000 (US Census). The MA Department of Public Health (MDPH) proposes activities, which will build on epidemiology, laboratory and health information systems capacity at state and local health department levels in MA.

Epidemiology

The MDPH Epidemiology Program, as a major component of the Bureau of Infectious Disease (BID), is tasked with surveillance, response and control activities for all zoonotic, emerging, foodborne, and waterborne infections, meningitis, all BT agents, viral hepatitis, antibiotic resistant organisms and healthcare-associated infections (HAI).

Laboratory

The Bureau of Laboratory Sciences (BLS) of the Massachusetts Public Health Laboratory (MA PHL) is a technical resource for MDPH and supports the activities of multiple bureaus of MDPH through its Enterics, PFGE, Food, Reference and Dairy Laboratories, and Molecular Diagnostics, Virus Serology and Virus Isolation Laboratories.

Health Information Systems

The Office of Integrated Surveillance and Informatics Services enhances and optimizes the collection and distribution of infectious disease surveillance data, and promotes standards-based electronic reporting of notifiable disease data by hospital laboratories (ELR), electronic health records (EHR) and other public health partners.

The MDPH BLS Informatics Office supports critical public health laboratory IT functions, including the evaluation and implementation of new diagnostic tests, development of IT capacity to respond to new public health events and emergencies, and enhancement of communications and data transfer between the BLS and its partners.

Proposed Activities

The following activities will strengthen and integrate capacity in Massachusetts for detecting and responding to infectious diseases and other public health threats:

1. Enhance outbreak investigative response and reporting to allow for a timelier implementation of prevention and control measures.
2. Upgrade and develop surveillance and response for, HAI, foodborne illness, antibiotic resistance, transfusion-associated infections, invasive meningococcal disease and respiratory illnesses, including influenza and infections with other viruses to provide more effective control measures and better define their burden.
3. Expand and enhance molecular diagnostics capacity; reduce turnaround times for foodborne illness testing, and integrate epidemiology, laboratory, and health information system components within MDPH and the Northeast Region.
4. Enhance health information exchange among MDPH, local health departments, providers, laboratories and the CDC.
5. Build capacity to accept, process, and analyze standards-based electronic messages from EHR, and expand ELR and laboratory information exchange to allow for information to travel more quickly allowing for a timelier public health response.