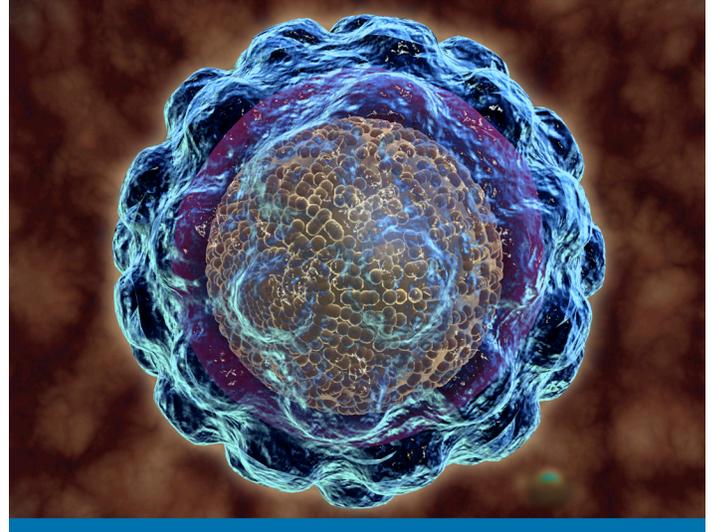


UNMET NEEDS

- Enhance the nation’s ability to respond to emerging disease outbreaks by increasing capacity building at CDC, develop and deploy diagnostic tests to state and local public health laboratories, and provide technical assistance and training to state and local public health laboratory professionals
- Continued support for the Advanced Molecular Detection (AMD) and Response to Infectious Disease Outbreaks Initiative to modernize and accelerate infectious disease detection and surveillance
- Continued support for the Combating Antibiotic Resistant Bacteria (CARB) Initiative including increased resources for detection and surveillance of antibiotic resistant bacteria and improved integration of existing systems
- Increased support for the Epidemiology and Laboratory Capacity (ELC) Program to assist public health laboratories to provide capacity to identify and monitor the occurrence of infectious diseases of public health importance
- Enhance national capacity to detect and prevent outbreaks of new infectious diseases through the Emerging Infectious Program
- Provide HIV/AIDS funding to:
 - Enable laboratories to detect HIV infections in their earliest and most infectious stages by supporting the most advanced testing technologies, including nucleic acid amplification testing and fourth-generation immunoassays
 - Improve laboratory capacity to monitor and confirm HIV-2 infections
- Increase funding for tuberculosis laboratory infrastructure to:
 - Implement and maintain capacity for the latest testing technology to identify tuberculosis and screen for drug resistance



- Develop a plan of action that will address extensively drug resistant tuberculosis (XDR-TB) to prevent it from becoming prevalent in the US
- Train new laboratory staff in tuberculosis testing procedures in light of a rapidly aging workforce
- Increased funding to address biosafety gaps in knowledge and practices within diagnostic laboratories

PREPAREDNESS, DETECTION AND CONTROL OF INFECTIOUS DISEASES

CDC funds critical laboratory improvements that allow federal and state programs to maintain early warning detection capabilities for known diseases and provide quick identification of unknown diseases. Increased funding is essential to preserve existing capacity, enhance surveillance for emerging diseases like Ebola and Zika and provide improved responsiveness to growing outbreaks of HIV and Hepatitis C Virus (HCV) associated with epidemic opiate use like the 2015 Indiana outbreak which saw 155 new individuals infected with HIV, 114 of which were co-infected with HCV.

Ongoing domestic infectious disease threats include Carbapenem-resistant Enterobacteriaceae and other antibiotic-resistant bacteria, MERS-CoV, dengue fever, Zika virus, bacterial meningitis, chikungunya virus. Over the past few years, there have been several large, multi-state outbreaks of pertussis, measles and pertussis. These vaccine preventable diseases are now re-emerging in children and adults.

RESPONDING TO ZIKA AND OTHER VECTOR-BORNE DISEASES

Vector-borne diseases include arboviruses such as Zika, chikungunya, dengue and West Nile Virus (WNV) and tick-borne diseases such as Lyme disease. Public health laboratories provide testing that supports surveillance to determine the level of disease and subsequent risk to people and provides data to inform the implementation of appropriate interventions.

Federal funding through the Epidemiology Laboratory Capacity Grants for vector-borne diseases surveillance has fallen steadily from \$24.0 million in FY04 to \$9.2 million in FY13. To combat reduced funding public health laboratories have reduced surveillance for arboviruses 57% of states

reported eliminating avian surveillance, 58% decreased mosquito trapping, 68% decreased mosquito testing, and 46% decreased the number of human specimens tested for WNV. Reducing the warm base for arbovirus surveillance makes it challenging for public health laboratories to mount a rapid response when emerging arboviruses such as dengue or chikungunya hit the US.

The US has seen these threats highlighted in recent months as the public health system has had to mount a rapid response to the ongoing Zika outbreak in the Americas. US public health laboratories are implementing new assays to detect Zika infection during the winter

The ongoing Zika outbreak in the Americas demonstrates that infectious disease threats are a plane ride away. Currently, infections in the US are limited to individuals who have traveled to endemic areas. Swift action and investment is necessary to prevent and limit local transmission of the virus within US borders.

CDC FUNDING

(Dollars in millions)

Emerging and Zoonotic Infectious Diseases

FY 2016 \$579.8

FY 2017 \$629.4 (requested)

FY 2017 \$629.4 (required)

Immunization and Respiratory Diseases

FY 2016 \$798.405

FY 2017 \$748.066 (requested)

FY 2017 \$798.405 (required)

HIV, Hepatitis, STDs and TB

FY 2016 \$1.122b

FY 2017 \$1.127b (requested)

FY 2017 \$1.127b (required)

months, when the majority of arbovirus laboratory staff is focused on testing for influenza. The sharing of laboratory staff between different laboratory areas was an efficiency step put into place in response to falling funding levels.

Continued funding reductions will force some states to choose between keeping laboratory staff to perform tests and the materials needed to support these activities. Other states may be required to fundamentally change the scope of their testing programs, reducing the information that is necessary for successful intervention strategies — which will lead to increased illness in humans and animals. ■

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