AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR **2018**

NEW YORK \$6,481,046

Funding for AR Activities Fiscal Year 2018 1 local CDC AR expert and 2 CDC fellows



Regional Lab for the AR Lab Network (Northeast)

One of 10 sites for the Emerging Infections Program

FUNDING TO STATE HEALTH DEPARTMENTS



AR LABORATORY NETWORK REGIONAL LABS boost state and local testing capacity and technology to detect, support response to, and prevent AR threats across the nation—and inform new innovations to detect AR.

\$2,227,822 New York's Wadsworth Center is the home to one of the AR Lab Network regional labs. The Wadsworth Center lab tested more than 10,000 surveillance samples of *Candida* from July 2017–June 2018, with results showing how widespread the resistant fungus, *Candida auris*, is in New York. The lab used surveillance samples to create a new rapid test and implemented the test for healthcare admission screening to limit spread. Wadsworth also continues to test germs, like "nightmare bacteria" CRE, and provided about 200 alerts to health departments in the region from March 2017–Sept. 2018. More than 60% of the bacteria tested carried a novel resistance gene; these alerts help stop their spread. Wadsworth Center also implemented and validated whole-genome sequencing for threats like these to inform infection control efforts in the region.



RAPID DETECTION AND RESPONSE to novel or high-concern drug-resistant germs is critical to contain the spread of these infections.

With 2017 funding, New York is successfully responding to a large *Candida auris* outbreak (an emerging, drug-resistant fungus) in healthcare facilities. Since late 2016, staff have led more than 140 site visits to conduct epidemiological and infection control surveys, and have collected and tested about 16,500 samples, representing a 950% increase in annual testing.



HAI/AR PREVENTION works best when public health and healthcare facilities partner together to implement targeted, coordinated strategies to stop infections and improve antibiotic use.

With 2017 funding, New York improved antibiotic use in long-term care facilities by working with more than 100 facilities to provide education and engage them on targeted antibiotic use projects.



FOOD SAFETY projects protect communities by rapidly identifying drug-resistant foodborne bacteria to stop and solve outbreaks and improve prevention. New York uses whole genome sequencing to track and monitor local outbreaks of *Listeria, Salmonella, Campylobacter,*

and E. coli and uploads sequence data into PulseNet for nationwide monitoring of outbreaks and trends. In Fiscal Year

2019, New York will begin simultaneously monitoring these isolates for resistance genes. When outbreaks are detected,

\$955,408 (Includes funding to New York City)



FUNGAL DISEASE projects improve our ability to track antifungal resistance and stop it from spreading.

With funding for fungal disease surveillance, New York increased their ability to identify fungal diseases, monitor for new and emerging resistance, and implement strategies to prevent its spread in high-risk areas. Improving detection for fungal diseases, like *Candida auris*, means patients receive appropriate treatment while reducing unnecessary antibiotic use.

Page 1 of 2 This data represents CDC's largest funding categories for AR. It shows extramural funding that supports AR activities from multiple funding lines.

local CDC-supported epidemiologists investigate the cases to stop spread.

AR: antibiotic resistance HAI: healthcare-associated infection

CDC provides critical support in the U.S. and abroad to protect people from antibiotic resistance.

www.cdc.gov/ARinvestments



U.S. Department of Health and Human Services Centers for Disease Control and Prevention AR Solutions in Action

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NEW YORK AR Investments (cont.)



GONORRHEA RAPID DETECTION & RESPONSE works with state and local epidemiology and laboratory partners to test for and quickly respond to resistant gonorrhea to stop its spread in high-risk communities.

To help inform national treatment guidelines for gonorrhea, New York participates in the Gonococcal Isolate Surveillance Project (GISP), testing how well antibiotics work on laboratory samples from sentinel STD clinics, which are often the first to detect the threat.



\$1,453,749

EMERGING INFECTIONS PROGRAM (EIP) sites improve public health by translating population-based surveillance and research activities into informed policy and public health practice. CDC's EIP network is a national resource for surveillance, prevention, and control of emerging infectious diseases—like antibiotic-resistant bacteria and fungi. Learn more: www.cdc.gov/ncezid/dpei/eip.

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS



INTERNATIONAL CENTER FOR AIDS CARE AND TREATMENT PROGRAMS (ICAP) AT COLUMBIA UNIVERSITY: Global Expertise & Capacity Enhancements

CDC's global work to combat AR prevents the importation of AR threats into the United States. Experts are working in the Republic of Georgia to improve national infection prevention and control through training and capacity assessments.

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