AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats Nationwide

FISCAL YEAR

NEW YORK \$8,353,429

Funding for AR Activities Fiscal Year 2017



2 local CDC fellows

Regional Lab for the AR Lab Network (Northeast)

One of 10 sites for the Emerging Infections Program

Candida auris, a resistant fungus that can cause deadly infections, was identified in New York. CDC provides resources to identify and contain resistant infections, like C. auris. After it emerged in the U.S. in 2016, the AR Lab Network regional labs began providing specialized testing to states fighting new threats.

FUNDING TO STATE HEALTH DEPARTMENTS



\$2,174,385

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.

New York is home to one of the AR Regional Labs performing specialty testing on pathogens like drug-resistant Candida. In 2016, New York's regional lab played a critical role in the rapid detection of C. auris, an emerging, resistant fungus that is difficult to identify with standard lab methods and can be misidentified and then mistreated. The New York lab tested and analyzed 2,960 surveillance samples and 162 clinical yeast isolates from July 2016-June 2017 and confirmed 366 isolates to be C. auris. Experts can use the data to evaluate transmission, stop spread and inform future prevention strategies.



\$1,081,341 (Includes funding to New York City)

RAPID DETECTION & RESPONSE to emerging drug-resistant germs is critical to contain the spread of these infections.

With 2016 funding, New York's HAI/AR program coordinated closely with the state public health lab to ensure that testing results indicating the need for an urgent public health response were rapidly communicated to relevant public health staff. This situational awareness facilitates rapid response to these threats to stop their spread.



\$946,135

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 2016 funding, New York developed data-driven strategies to target prevention interventions to facilities with high rates of antibiotic resistance infections. The HAI/AR program focused on identifying networks of hospitals and nursing homes to keep outbreaks from spreading between facilities when patients are transferred.



\$746,145 (Includes funding to New York City)

FOOD SAFETY projects protect communities by rapidly identifying drug-resistant foodborne bacteria to stop and solve outbreaks and improve prevention.

New York implemented whole genome sequencing of Listeria, Salmonella, Campylobacter and E. coli isolates submitted to its lab and began uploading sequence data into PulseNet for nationwide monitoring of outbreaks and trends. In Fiscal Year 2018, New York will begin simultaneously monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

Page 1 of 2 This data represents CDC's largest funding categories for AR. It shows domestic, extramural funding that supports AR activities from multiple funding lines. AR: antibiotic resistance HAI: healthcare-associated infection



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FISCAL YEAR

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NEW YORK AR Investments (continued)



\$1,634,247 (Includes funding to New York City)

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. Only one treatment option remains for gonorrhea and resistance continues to grow.

With 2016 funding, New York City increased their local response capacity and doubled their rapid susceptibility testing—which determines how well a gonorrhea strain will respond to specific antibiotics. Test results are used to inform local outbreak response action, national treatment guidelines and antibiotic resistance trends.



EMERGING INFECTIONS PROGRAM (EIP) sites conduct in-depth studies to improve surveillance, prevention, and control of emerging infectious diseases like antibiotic-resistant infections.

The EIP network collects and analyzes patient, healthcare facility, and lab data to track resistant infections across communities and healthcare facilities, identifying prevention strategies to improve program impact. To learn more, search "emerging infections" at www.ny.gov.

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 countries of Georgia and Sierra Leone to improve national infection prevention and control through capacity assessments and a certification course. ICAP is also working with CDC to pilot a toolkit for detecting and preventing "nightmare bacteria" CRE.

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