AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR 2019

NEW YORK

$11,169,909

Funding for AR Activities
Fiscal Year 2019

HIGHLIGHTS

- One local CDC AR expert & one local CDC fellow
- Regional Lab for the AR Lab Network (Northeast)
- One of 10 sites for the Emerging Infections Program

FUNDING TO STATE HEALTH DEPARTMENTS

$2,314,199

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.

With 2018 funding, New York State's Wadsworth Center has provided OXA23, OXA24/40 and OXA58 gene detection for carbapenem-resistant *Acinetobacter baumannii* (CRAB) isolates. During this timeframe, 93 alerts have been reported in 5 jurisdictions (CT, MA, NH, NJ, and NY). CRAB colonization screening of rectal swabs from CRAB clinical case contacts has also been provided and resulted in 7 positive OXA23 screens to impact transmission investigations.

$4,238,078
(Includes funding to New York City)

RAPID DETECTION & RESPONSE: State, territory, and local public health partners fight antibiotic resistance in healthcare, the community, and food. Programs use the AR Lab Network to rapidly detect threats and implement prevention, response, and antibiotic stewardship to stop the spread of resistant germs.

With 2018 funding, New York detected an uncommon resistance mechanism in carbapenem-resistant Enterobacteriaceae in mechanically ventilated nursing home residents. This prompted an infection control assessment, recommendations, and contact investigations to evaluate spread. New York used advanced laboratory techniques, including whole genome sequencing, to assess connection of the cases and possible transmission, helping to stop an outbreak in a vulnerable nursing home population.

$635,317
(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 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 2020, New York will continue monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

$175,202
(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.

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

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

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NEW YORK AR Investments (cont.)

$1,363,769
(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.

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.

$1,914,314

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 infectious diseases. For example, the EIP in New York performs population-based surveillance for candidemia, ***C. difficile*** ,invasive ***S. aureus***, and resistant Gram-negative bacteria, and conducts HAI and antibiotic use prevalence surveys. The EIP is developing ways to track sepsis and infections due to non-tuberculous mycobacteria, and is collaborating with the CDC Prevention Epicenters. Learn more: www.cdc.gov/hai/eip

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$529,030

ROCHESTER GENERAL HOSPITAL RESEARCH INSTITUTE: Discovering & Implementing What Works

Acute otitis media (AOM) is among the most common infectious diseases in children and is the most common bacterial infection in children for which antibiotics are prescribed. Researchers will examine the effect of PCV13 (vaccine that protects against 13 pneumococcal bacteria) use on incidence of antibiotic-resistant pathogens causing otitis media in children.

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