AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR 2019

GEORGIA

$4,278,944

Funding for AR Activities
Fiscal Year 2019

HIGHLIGHTS

- One local CDC fellow
- One of 10 sites for the Emerging Infections Program

FUNDING TO STATE HEALTH DEPARTMENTS

$774,259

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, Georgia identified a rare carbapenem-resistant Enterobacteriaceae (CRE) at a large nursing home. Screening of the 123 residents confirmed the CRE had not spread in the facility, but did identify other drug-resistant organisms. Georgia conducted an on-site infection control assessment, issued a tailored infection control plan, and instituted an admission screening protocol for the facility, including screening for *Candida auris*.

$345,456

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

Georgia 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, Georgia will continue monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

$113,787

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

With funding for fungal disease surveillance, Georgia 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.

$1,890,063

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 Georgia performs population-based surveillance for candidemia, ***C. difficile***, invasive ***S. aureus***, and resistant Gram-negative bacteria. GA EIP also conducts HAI and antibiotic use prevalence surveys; mold infection surveillance; is assessing a new method to track sepsis in hospitals; and collaborates with the CDC Prevention Epicenters. Learn more: www.cdc.gov/hai/eip

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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GEORGIA AR Investments (cont.)

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$77,748

EMORY UNIVERSITY SCHOOL OF MEDICINE: Innovative Prevention & Tracking

With CDC investigators, an Emory University hospital medicine specialist provides technical assistance to the National Healthcare Safety Network (NHSN) on the development of new measures of HAIs and AR. The goal is to enable electronic health record systems and laboratory information systems to serve as source systems for the new measures, with the benefits of providing new insights into HAI and AR problems while streamlining reporting to NHSN.

$118,410

EMORY UNIVERSITY SCHOOL OF MEDICINE: Discovering & Implementing What Works

With CDC investigators, an Emory University nephrologist provides technical assistance to improve infection control practices in the dialysis setting.

$52,945

EMORY UNIVERSITY: Innovative Prevention & Tracking

With CDC investigators, an Emory University neonatologist provides technical assistance to the National Healthcare Safety Network (NHSN) on the development of new surveillance coverage of HAIs, AR, and antibiotic use (AU) in the neonatal patient population. The goal of this work is to combat HAIs and AR and curb overuse of antibiotics in neonatal intensive care and newborn units.

$137,914

EMORY UNIVERSITY: Innovative Prevention & Tracking

With CDC investigators, an Emory University hospital medicine specialist provides technical assistance to the National Healthcare Safety Network (NHSN) on the use of health information technology and medical informatics strategies and solutions in order to streamline reporting to NHSN and use the healthcare data delivered to NHSN for clinical quality measurements that are meaningful and actionable for frontline practitioners.

$339,500

TEPHINET: Global Expertise & Capacity Enhancements

CDC's global work to combat AR helps prevent the importation of AR threats into the United States. Experts are working in Nigeria and Senegal to identify critical resistant pathogens in Francophone and Anglophone West Africa through improved detection and reporting of novel types of antibiotic resistance genes.

$119,245

TEPHINET: Global Expertise & Capacity Enhancements

CDC's global work to combat AR helps prevent the importation of AR threats into the United States. Experts are working in Colombia to evaluate innovative approaches that improve antibiotic use and strategies to contain the spread of antibiotic-resistant germs and genes.

$150,000

inNOVETA BIOMEDICAL LLC.: Discovering & Implementing What Works

Currently, there are no long-term solutions to prevent infection in indwelling catheters. The goal of this project is to develop coatings or altered surfaces that can be used on indwelling urinary or intravascular catheters to reduce biofilm formation. The in vitro model is designed to simulate biofilm formation on catheter surfaces. The antibacterial effectiveness of the catheters will be tested using clinically relevant organisms.

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