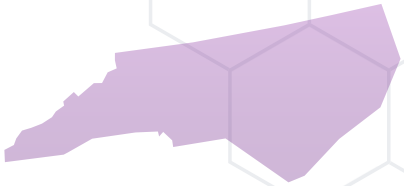
AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR 2019

NORTH CAROLINA



$2,304,991

Funding for AR Activities
Fiscal Year 2019

FUNDING TO STATE HEALTH DEPARTMENTS

$620,311

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, North Carolina implemented reporting of select carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE), reviewed 294 CP-CRE reports, submitted 1,129 screening swabs to the AR Lab Network, provided education to more than 400 healthcare providers, and trained local health department staff from across the state to serve as force multipliers and assist with infection control assessments in response to events and outbreaks of CP-CRE.

$184,120

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

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

$471,036

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.

Between July 2018–June 2019, the North Carolina SURRG project completed testing for about 28% of the more than 1,900 gonorrhea cases reported in Guilford County. They identified 14 samples that did not respond optimally to recommended antibiotics, and grantees adhered to protocols for following up with those patients and their sex partners. To help inform national treatment guidelines for gonorrhea, North Carolina also participates in the Gonococcal Isolate Surveillance Project (GISP), testing how well antibiotics work on laboratory samples from sentinel STD clinics.

 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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FISCAL YEAR 2019

NORTH CAROLINA AR Investments (cont.)

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$499,985

DUKE UNIVERSITY AND UNIVERSITY OF NORTH CAROLINA: CDC Prevention Epicenter

CDC collaborates with medical academic investigators to conduct innovative infection control and prevention research in healthcare settings. One of the projects in North Carolina will assess when non-critically ill patients with suspected sepsis (the body's overwhelming and life-threatening response to infection) can safely stop taking antibiotics. Another study will test the effectiveness of novel disinfectants to reduce contamination in healthcare rooms. Learn more: www.cdc.gov/hai/epicenters

$529,539

RESEARCH TRIANGLE INSTITUTE: Discovering & Implementing What Works

The Modeling Infectious Diseases in Healthcare Network (MInD-Healthcare) is a virtual laboratory where researchers can investigate factors that drive spread of HAIs and simulate prevention strategies to estimate their benefits in a timely and cost-effective manner. Investigators will use data to inform regional health policy decisions for hospital interventions by examining transfer of patients between facilities. Learn more: www.cdc.gov/hai/research

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