

AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR
2020

NORTH CAROLINA

\$3,022,019

Funding for AR Activities
Fiscal Year 2020

1 local CDC fellow

CDC Prevention Epicenter

HIGHLIGHTS

FUNDING TO STATE HEALTH DEPARTMENTS



\$636,810

RAPID DETECTION & RESPONSE: State, territory, and local public health partners fight AR in healthcare, the community, and food.

Programs use the AR Lab Network to rapidly detect threats and then implement prevention, response, and antibiotic stewardship to stop the spread of resistant germs. Additional resources, appropriated to CDC to fight COVID-19, will also help in the fight against AR by improving infection prevention and control in healthcare facilities.



\$181,979

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.



\$475,446

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.

During July 2018–June 2019, the North Carolina SURRG project completed testing for about 23% of the more than 2,300 gonorrhea cases reported in Guilford County. They identified 29 samples that did not respond optimally to recommended antibiotics, and grantees adhered to protocols for following up with those patients and their sex partners. Data from this project is also used to help inform national treatment guidelines for gonorrhea through the Gonococcal Isolate Surveillance Project (GISP).

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS



\$600,000

DUKE UNIVERSITY AND UNIVERSITY OF NORTH CAROLINA: CDC Prevention Epicenter

The Prevention Epicenters Program is a collaborative network between public health and experts in relevant fields of HAI and AR that responds to research priorities to protect patients. The network conducts research to support the translation of innovative infection control and prevention strategies for preventing HAIs, AR and other adverse events in all healthcare settings. This work is funded by resources appropriated to CDC to support its response to COVID-19.

[Learn more: www.cdc.gov/hai/epicenters](http://www.cdc.gov/hai/epicenters)

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

ARinvestments.cdc.gov



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

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**NORTH CAROLINA AR Investments
(cont.)**



DUKE UNIVERSITY: Discovering & Implementing What Works

Investigators will determine the optimal content and implementation strategies for the *C. difficile* Infection (CDI) Prevention Framework and the effectiveness of these strategies in reducing CDI rates.

\$577,784



NORTH CAROLINA STATE UNIVERSITY: Discovering & Implementing What Works

The Modeling Infectious Diseases in Healthcare Network (MInD-Healthcare) is a network of leading U.S. modelers that responds to evolving public health needs in healthcare settings by predicting outbreaks and investigating intervention strategies. The network develops and applies computational tools and mathematical methods for preventing HAIs, including those caused by AR pathogens. This work is also funded in part by resources appropriated to CDC to support its response to COVID-19. [Learn more: https://www.cdc.gov/hai/research](https://www.cdc.gov/hai/research)

\$550,000

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U.S. Department of Health and Human Services
Centers for Disease Control and Prevention