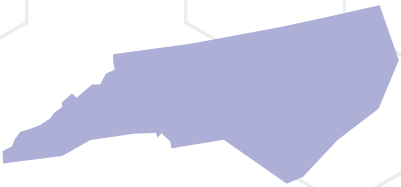
AR Solutions *In Action*

CDC's Investments to Combat Antimicrobial Resistance Threats

FISCAL YEAR 2022

NORTH CAROLINA



$6,139,068

Funding for AR Activities
Fiscal Year 2022

CDC Prevention Epicenter HIGHLIGHTS

FUNDING TO STATE HEALTH DEPARTMENTS

$834,841

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

CDC-funded HAI/AR Programs form a network of health departments that detect, prevent, respond to, and contain HAI/AR threats and promote appropriate use of antibiotics and antifungals. CDC's AR Lab Network provides nationwide lab capacity to rapidly detect AR and inform local prevention and response activities to stop the spread of resistant germs and protect people.

$184,997

FOOD SAFETY projects protect communities by rapidly identifying antimicrobial-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 *Escherichia coli* and uploads sequence data into PulseNet for nationwide monitoring of outbreaks and trends. In fiscal year 2022, North Carolina continued monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop the spread.

$564,674

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.

Strengthening the United States Response to Resistant Gonorrhea (SURRG) conducts rapid testing and quick responses to resistant gonorrhea cases in high-burden communities. This data also helps inform national treatment guidelines for gonorrhea through the Gonococcal Isolate Surveillance Project (GISP). SURRG awardees established a state-level antibiotic-resistant gonorrhea Center of Excellence, developed a state-level gonorrhea treatment failure reporting portal and outbreak response plan, and piloted molecular testing to look for markers of gonorrhea resistance.

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$599,444

DUKE UNIVERSITY: CDC Prevention Epicenter

The Prevention Epicenters Program is a collaborative network of 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 IPC strategies for preventing HAIs, AR, and other adverse events in all healthcare settings.
Learn more: www.cdc.gov/hai/epicenters

This data represents CDC's largest funding categories for AR. It shows extramural funding that supports AR activities from multiple funding lines. Some work received full or partial funding from COVID-19 supplemental appropriations, such as the American Rescue Plan Act or the CARES Act.

AR: antimicrobial resistance **COVID-19:** coronavirus disease 2019
HAI: healthcare-associated infection **IPC:** infection prevention and control
NHSN: National Healthcare Safety Network

CDC provides critical support in the U.S. and abroad to protect people from antimicrobial 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.)

$476,969

DUKE UNIVERSITY: Discovering & Implementing What Works

Investigators are using NHSN Antibiotic Use (AU) Option data to provide example reports that healthcare antibiotic stewards can use to inform, implement, and assess antibiotic stewardship activities and share clinical scenarios of how AU Option data can support effective stewardship efforts. Investigators will provide resources on how to report these data to healthcare providers and facility leadership.
Learn more: www.cdc.gov/hai/research/safehealthcare.html

$1,639,736

DUKE UNIVERSITY: Discovering & Implementing What Works

Investigators are assessing the potential role of sociodemographic status in NHSN HAI measures and advising NHSN on a strategy for the appropriate incorporation of these data into aspects of the reporting process, such as stratified reporting or risk adjustment to promote more equitable care.
Learn more: www.cdc.gov/hai/research/safehealthcare.html

$600,000

NORTH CAROLINA STATE UNIVERSITY: Discovering & Implementing What Works

The Modeling Infectious Diseases in Healthcare Network (MInD-Healthcare) responds to evolving public health needs in healthcare settings by conducting transmission modeling research and assessing high-impact intervention strategies. North Carolina State University improves approaches for predicting HAI acquisition routes, optimizing surveillance and control, and applying methods to explore fitness effects of AR pathogens.
Learn more: www.cdc.gov/hai/research/MIND-Healthcare.html

$249,625

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE: Building the AR Workforce

A new CDC cooperative agreement, Building Mathematical Modeling Workforce Capacity to Support Infectious Disease and Healthcare Research, supports pre-doctoral fellows' research to develop and apply computational tools and mathematical methods for modeling the spread of pathogens in health care. Awardees will use existing or simulated datasets and real-time information to conduct analyses and build models relevant to combating HAIs and AR.

$388,782

DUKE UNIVERSITY: Discovering & Implementing What Works

Investigators are optimizing the detection and monitoring of environmental fungal contamination in healthcare settings in order to establish baseline contamination rates. Investigators are also evaluating air and surface sampling methods for environmental fungal contamination.

$600,000

FAMILY HEALTH INTERNATIONAL 360: Global Expertise & Capacity Enhancements

CDC's global work to combat AR helps prevent the importation of AR threats into the United States. Experts are developing environmental monitoring in Kenya to address antimicrobial-resistant enteric pathogen transmission. Experts work with local laboratories in Kenya to develop environmental monitoring of antimicrobial-resistant enteric pathogens in household water, water sources, and environmental samples and work to assess risk factors for exposure to those pathogens to understand and improve prevention measures. This work is part of CDC's Global AR Lab & Response Network efforts.

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