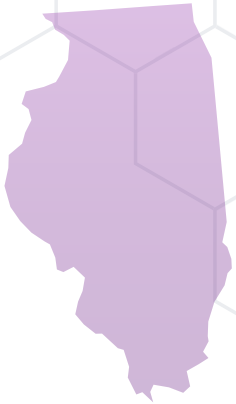
AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR 2019



ILLINOIS

$4,477,934

Funding for AR Activities
Fiscal Year 2019

HIGHLIGHTS

One local CDC AR expert

FUNDING TO STATE HEALTH DEPARTMENTS

$1,722,694
(Includes funding to Chicago)

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, Illinois, with public health partners, continued responding to an ongoing, multi-facility outbreak of *Candida auris*. Through the AR Lab Network, active surveillance testing at more than 50 healthcare facilities identified over 450 colonized cases; an additional 160 clinical cases were investigated. Illinois provided on-site infection control assessments and intensive training to facilities to improve hand hygiene and environmental cleaning.

$115,267
(Includes funding to Chicago)

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

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

$80,000
(Includes funding to Chicago)

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

With funding for fungal disease surveillance, Illinois 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.

$50,442
(Includes funding to Chicago)

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, Chicago participates in the Gonococcal Isolate Surveillance Project (GISP), testing how well antibiotics work on laboratory samples from sentinel STD clinics, which often are the first to detect the threat. Select STD clinics in Chicago also collect additional gonococcal isolates, including isolates from women and from extragenital sites, to further enhance surveillance for antibiotic resistant gonorrhea.

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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ILLINOIS AR Investments (cont.)

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$515,436

RUSH UNIVERSITY MEDICAL CENTER: 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 Illinois is studying what factors put patients at risk for drug-resistant infections. Another study is assessing regional transmission of antibiotic-resistant germs and identifying intervention strategies. Learn more: www.cdc.gov/hai/epicenters

$800,379

UNIVERSITY OF ILLINOIS AT CHICAGO: CDC Prevention Epicenter

CDC collaborates with medical academic investigators to conduct innovative research to protect patients from antibiotic-resistant germs in healthcare settings. Investigators from Illinois are leading a study evaluating a novel device to prevent infections after surgery. Other research topics include improving testing for ***C. difficile*** (which can cause deadly diarrhea) and evaluating methods for tracking HAIs. Learn more: www.cdc.gov/hai/epicenters

$502,185

RUSH UNIVERSITY: Microbiome Assessment & Intervention

Chlorhexidine gluconate (CHG) is a broad-spectrum, topical antiseptic that is widely used in healthcare. Researchers will evaluate potential unintended adverse consequences of long-term chlorhexidine gluconate (CHG) use, including emergence of CHG resistance, emergence of co-resistance to antibiotics, and shifts in frequency and distribution of microbial pathogens producing disease.

$691,531

LURIE CHILDREN'S HOSPITAL OF CHICAGO: Innovative Prevention & Tracking

An active surveillance system for Group A Streptococci (GAS) pharyngitis has not existed in the United States since 2007. Researchers will develop an outpatient GAS surveillance network in five geographically distinct areas to better understand GAS burden and trends domestically.

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