AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR 2019

TENNESSEE

$8,124,672

Funding for AR Activities Fiscal Year 2019

HIGHLIGHTS

- One local CDC fellow
- Regional Lab for the AR Lab Network (Southeast)
- One of 10 sites for the Emerging Infections Program

FUNDING TO STATE HEALTH DEPARTMENTS

$2,472,276

AR LABORATORY NETWORK REGIONAL LABS boost state and local testing capacity and technology to detect, support response to, and prevent AR threats across the nation—and inform new innovations to detect AR.

With 2018 funding, the Southeastern region's Tennessee State Public Health Lab was one of the first labs in the U.S. to conduct regular colonization screening during a multi-facility *Acinetobacter baumannii* outbreak. Collaboration with partners, enhanced lab testing, and an aggressive public health containment response with multiple onsite visits allowed for successful containment of transmission over a six month period.

$3,637,709

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, Tennessee led eight tabletop exercises on *Candida auris* containment, describing response process and encouraging interaction among healthcare facilities, labs, and public health. Rapid identification of *C. auris* is essential to prevent transmission. Some healthcare systems have added admission-screening questions to identify patients potentially colonized with *C. auris* and have sent samples for testing to the AR Lab Network Southeast Regional Lab.

$424,303

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

Tennessee 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, Tennessee will continue monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread. CDC also funds Tennessee's Food Safety Center for Excellence, which provides assistance and training to other health departments to build capacity to track and investigate foodborne disease.

$111,592

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

With funding for fungal disease surveillance, Tennessee 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.

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

$1,478,792

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

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