AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR
2020

MICHIGAN

$5,168,884

Funding for AR Activities
Fiscal Year 2020

HIGHLIGHTS

- 1 local CDC fellow
- AR Lab Network's National Tuberculosis Molecular Surveillance Center

FUNDING TO STATE HEALTH DEPARTMENTS

$1,972,558

AR LABORATORY NETWORK REGIONAL LAB: The National Tuberculosis Molecular Surveillance Center uses universal whole genome sequencing (WGS) of *Mycobacterium tuberculosis* isolates from all culture-confirmed cases in the United States to support outbreak investigations and provide surveillance of drug resistance.
During the COVID-19 pandemic, Michigan used its AR Lab Network sequencing capacity to study SARS-CoV-2, sequencing more than 2,100 genomes Jan-Sept. 2020 to support contact tracing and help stop the spread of the virus. These collaborations further display the flexibility of the AR Lab Network and how CDC's investments can be adapted during a crisis.

$2,799,609

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.

$332,507

FOOD SAFETY projects protect communities by rapidly identifying drug-resistant foodborne bacteria to stop and solve outbreaks and improve prevention.
Michigan 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, Michigan will continue monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

$64,210

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.
The Gonococcal Isolate Surveillance Project (GISP) informs national treatment guidelines and Gonococcal Isolate Surveillance Project (GISP) monitors how well antibiotics work on laboratory samples collected from sentinel STD clinics, which often are the first to detect the threat. Select STD clinics also enhance surveillance by collecting additional gonococcal isolates from women and from extragenital sites.

This data represents CDC's largest funding categories for AR. It shows extramural funding that supports AR activities from multiple funding lines.

COVID-19: coronavirus disease 2019
AR: antibiotic resistance **HAI:** healthcare-associated infection

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