MICHIGAN
$4,117,347

Funding for AR Activities
Fiscal Year 2018

AR Lab Network's National Tuberculosis Molecular Surveillance Center

HIGHLIGHTS

FUNDING TO STATE HEALTH DEPARTMENTS

$1,850,058

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.
The Michigan Department of Health and Human Services is home to the National Tuberculosis (TB) Molecular Surveillance Center. Beginning in March 2018, the group implemented universal whole genome sequencing (WGS) of all culture-confirmed cases of tuberculosis (TB) in the United States and has sequenced more than 6,000 isolates of *Mycobacterium tuberculosis*. The WGS data helps detect and support outbreak investigations, and will allow for nationwide molecular surveillance of drug-resistant TB.

$583,107

RAPID DETECTION AND RESPONSE to novel or high-concern drug-resistant germs is critical to contain the spread of these infections.
With 2017 funding, Michigan used CDC's Containment Strategy to respond to and successfully contain 34 novel AR introductions or outbreaks.

$557,949

HAI/AR PREVENTION works best when public health and healthcare facilities partner together to implement targeted, coordinated strategies to stop infections and improve antibiotic use.
With 2017 funding, Michigan successfully implemented a voluntary reporting system through its CRE Surveillance and Prevention Initiative. CRE is also known as the "nightmare bacteria" because it can cause infections that are resistant to some of our most powerful antibiotics. One participating hospital identified a novel CRE and prevented spread with swift inter-facility communication and coordination.

$487,578

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 2019, Michigan will begin simultaneously monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

$63,000

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

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

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$368,548

REGENTS OF THE UNIVERSITY OF MICHIGAN: Microbiome Assessment & Intervention
This study will assess changes over time in the human gut microbiome (communities of microbes that live in and on us) in healthy patients undergoing elective surgery. Their ultimate goal is to develop measures that can assess microbiome health status that associate with important clinical outcomes, such as acquiring an antibiotic-resistant organism.

$207,107

HENRY FORD HEALTH SYSTEM: Discovering & Implementing What Works
Patients are often prescribed antibiotics when they are discharged (when they are sent home from the hospital). This study aims to improve antibiotic selection and reduce excess length of antibiotic therapy by facilitating a team antibiotic prescription review supported by pharmacists at the time of discharge.

AR: antibiotic resistance   **HAI:** healthcare-associated infection

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