MICHIGAN

$3,196,689

Funding for AR Activities
Fiscal Year 2017

AR Lab Network's National Tuberculosis Molecular Surveillance Center

HIGHLIGHTS

FUNDING TO STATE HEALTH DEPARTMENTS

$1,238,534

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.
Added in 2017, the AR Lab Network now includes the National Tuberculosis (TB) Molecular Surveillance Center, which performs whole genome sequencing for all isolates of *Mycobacterium tuberculosis*. The lab is using state-of-the-art methods to analyze TB samples. New molecular methods reduce the time needed to determine if a strain is resistant from weeks to days.

$300,974

RAPID DETECTION & RESPONSE to emerging drug-resistant germs is critical to contain the spread of these infections.
With 2016 funding, Michigan collaborated with local health departments and healthcare facilities to rapidly detect and investigate HAI/AR cases, thereby stopping the spread of antibiotic resistance clusters and novel resistance mechanisms.

$938,507

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 2016 funding, Michigan supported 40 facilities in a surveillance and prevention initiative that monitors for the "nightmare bacteria" CRE. These efforts reduced CRE incidence by about 30% in participating facilities and prevented more than 300 infections.

$365,066

FOOD SAFETY projects protect communities by rapidly identifying drug-resistant foodborne bacteria to stop and solve outbreaks and improve prevention.
Michigan implemented whole genome sequencing of *Listeria*, *Salmonella*, *Campylobacter* and *E. coli* isolates submitted to its lab and began uploading sequence data into PulseNet for nationwide monitoring of outbreaks and trends. In Fiscal Year 2018, Michigan will begin simultaneously monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$353,608

REGENTS OF THE UNIVERSITY OF MICHIGAN: Microbiome Assessment & Intervention
Antibiotics can change the intestinal microbiome, which may increase the risk of sepsis (the body's extreme response to an infection). Researchers will extend previous CDC-funded work to assess intestinal microbiome disruption and dominance by the Enterobacteriaceae family of bacteria as risk factors for sepsis.

CDC provides critical support to every state to protect Americans from antibiotic resistance.

www.cdc.gov/ARinvestments

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