## AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats Nationwide

**FISCAL YEAR** 

## **MINNESOTA** \$5,973,059

**Funding for AR Activities** Fiscal Year 2017



2 local CDC fellows

Regional Lab for the AR Lab Network (Central)

One of 10 sites for the Emerging Infections Program

## **FUNDING TO STATE HEALTH DEPARTMENTS**



\$2,601,949

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.

Minnesota is home to one of the AR Regional Labs, which can perform specialty testing for their region when new and emerging resistance threats occur. In 2016, Minnesota's regional lab began a study using whole genome sequencing to better understand the genetics of C. difficile, which is associated with antibiotic use and can cause potentially deadly diarrhea. This data helps experts build tools that help identify new strains of C. difficile, better identify the source of infections, measure the risk of spread between patients and facilities, and help target prevention efforts.



RAPID DETECTION & RESPONSE to emerging drug-resistant germs is critical to contain the spread of these infections.

With 2016 funding, Minnesota enhanced its "nightmare bacteria" CRE reporting and lab testing capacity, further improving the state's ability to coordinate among clinical labs and positioning the state as a regional leader in CRE lab testing and reporting.



\$750,000

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, Minnesota, as part of its One Health Collaborative and five-year strategic plan, developed the Minnesota Acute Care Antibiotic Stewardship Honor Roll and a gap analysis tool to assess hospital-based programs that aimed to improve antibiotic prescribing and use.



\$559,416

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

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



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.



EMERGING INFECTIONS PROGRAM (EIP) sites conduct in-depth studies to improve surveillance, prevention, and control of emerging infectious diseases like antibiotic-resistant infections.

The EIP network collects and analyzes patient, healthcare facility, and lab data to track resistant infections across communities and healthcare facilities, identifying prevention strategies to improve program impact. Learn more: http://www.health.state.mn.us/divs/idepc/adic.html#eip.

Page 1 of 1 This data represents CDC's largest funding categories for AR. It shows domestic, extramural funding that supports AR activities from multiple funding lines. AR: antibiotic resistance HAI: healthcare-associated infection

