# AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats Nationwide

FISCAL YEAR

## **TEXAS**

\$4,485,539

**Funding for AR Activities** Fiscal Year 2017



1 local CDC fellow

Regional Lab for the AR Lab Network (Mountain)

### **FUNDING TO STATE HEALTH DEPARTMENTS**



\$1,529,838

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.

Texas is home to one of the AR Regional Labs performing specialty testing on pathogens like drug-resistant gonorrhea. In 2016, the Texas regional lab used its existing expertise to support nationwide susceptibility testing for more than 300 gonorrhea isolates while the other AR Lab Network grantees established testing infrastructure and processes.



\$947,909 (Includes funding to Houston)

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

With 2016 funding, Texas initiated placement of regional HAI/AR epidemiologists across the state, significantly increasing HAI/AR outbreak reporting and response capacity. This local expertise enhances detection, investigation and response to emerging threats statewide.



\$250,000 (Includes funding to Houston)

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, Houston successfully responded to a Legionella outbreak among immunocompromised individuals in an outpatient cancer treatment facility. The response informed promising practices on the prevention of Legionnaire's disease and other HAI/AR threats for healthcare workers across the city.



\$463,902 (Includes funding to Houston)

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

Texas 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, Texas 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**



#### **BAYLOR COLLEGE OF MEDICINE: Microbiome Assessment & Intervention**

This project will evaluate in vitro and mouse models of human gut microbiomes to help create a pre-screening tool to evaluate potential therapies.



\$999,999

#### LYNNTECH, INC.: Microbiome Assessment & Intervention

Investigators will develop a clinical diagnostic test to detect the presence and amount of drug-resistant germs, like "nightmare bacteria" CRE, in a patient's lower intestine. Test results may help healthcare providers understand the patient's microbiome and their risk of being infected by a drug-resistant germ or spreading it to others. This type of rapid clinical test may help guide providers in their choice of antibiotics and infection control to better protect patients and—in the future—may direct the use of advanced probiotics and fecal transplants.

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

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