AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR

MASSACHUSETTS \$5,331,952

Funding for AR Activities Fiscal Year 2018

2 local CDC fellows



FUNDING TO STATE HEALTH DEPARTMENTS



RAPID DETECTION AND RESPONSE to novel or high-concern drug-resistant germs is critical to contain the spread of these infections.

\$743,632

With 2017 funding, Massachusetts rapidly identified and responded to a patient simultaneously colonized with three drug-resistant organisms. In collaboration with the healthcare facility, contacts were tested and appropriate infection control measures were implemented to contain the organisms.



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, Massachusetts collaborated with the regional quality improvement organization and Tufts Medical Center to educate staff from 200 long-term care facilities on antibiotic stewardship. Trainings for an additional 100 facilities will be conducted in the coming months.



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

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



\$55,000

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.

With 2018 funds, Massachusetts participates in a sentinel surveillance project, the STD Surveillance Network, monitoring adherence to national gonorrhea treatment guidelines for patients diagnosed and reported with gonorrhea from all provider settings across the state.

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS



HARVARD PILGRIM HEALTH CARE AND UNIVERSITY OF CALIFORNIA, IRVINE: CDC Prevention Epicenter

CDC collaborates with medical academic investigators to conduct innovative infection control and prevention research in healthcare settings. One of the projects in Massachusetts will assess whether statistical software tools can identify HAI outbreaks sooner in order to reduce their size and duration. Another study is examining the relationship between opioid use and sepsis, the body's overwhelming and life-threatening response to infection.

Learn more: www.cdc.gov/hai/epicenters

Page 1 of 2 This data represents CDC's largest funding categories for AR. It shows extramural funding that supports AR activities from multiple funding lines.

AR: antibiotic resistance HAI: healthcare-associated infection



U.S. Department of

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2018

MASSACHUSETTS AR Investments (cont.)



MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH: Innovative Prevention & Tracking

To improve antibiotic prescribing in dentistry, researchers will analyze insurance claim data to better understand prescribing by dentists, test a customized peer comparison message to the most frequent prescribers, and promote existing guidelines for prophylactic prescribing in dentistry.



MASSACHUSETTS GENERAL HOSPITAL & HARVARD UNIVERSITY: Innovative Prevention & Tracking

This study will characterize how often healthy travelers become colonized with highly drug-resistant germs when traveling abroad. The study will also investigate risk factors for acquiring these drug-resistant germs while traveling and identify how long people carry these germs. Work will occur through Global TravEpiNet (GTEN), a CDC-supported national network of travel clinics across the U.S. To learn more: https://wwwnc.cdc.gov/travel/page/gten



AR: antibiotic resistance HAI: healthcare-associated infection

CDC provides critical support in the U.S. and abroad to protect people from antibiotic resistance.

