AR Solutions in Action

CDC's Investments to Combat Antibiotic Resistance Threats Nationwide

FISCAL YEAR

FIGHLIGH

WASHINGTON \$9,553,153

Funding for AR Activities Fiscal Year 2017 1 local CDC fellow

Regional Lab for the AR Lab Network (West)

FUNDING TO STATE HEALTH DEPARTMENTS



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.

Washington is home to one of the AR Regional Labs and recruited 21 statewide sentinel sites for carbapenemresistant *Pseudomonas* and carbapenem-resistant *Acinetobacter* carbapenemase testing in early 2017. Recruitment was achieved through outreach by the Healthcare-Associated Infections program using direct calling and emailing of laboratory contacts and managers. Open communication, established trust, flexible submission strategies and a mutual commitment to detecting drug-resistant germs was essential to this effort.



RAPID DETECTION & RESPONSE to emerging drug-resistant germs is critical to contain the spread of these infections. With 2016 funding, Washington further increased its lab capacity with specialized expertise and new testing methods to detect "nightmare bacteria" CRE. The HAI/AR program also increased capacity to detect and respond to HAI/AR outbreaks, assisting with 31 investigations in 2016.



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, Washington partnered with the state hospital association and university to develop the Telestewardship Program (UW-TASP), a distance-learning program that brings the latest science and expertise to healthcare providers in small and rural hospitals to assist with improved antibiotic use.



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

Washington 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, Washington 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.

With 2016 funding, Washington increased their local response capacity and initiated rapid antibiotic susceptibility testing—which determines how well a gonorrhea strain will respond to specific antibiotics. Washington conducted rapid antibiotic susceptibility testing on 45 gonorrhea specimens in June 2017. Test results are used to inform local outbreak response action, national treatment guidelines and antibiotic resistance trends.

Page 1 of 2 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

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



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

www.cdc.gov/ARinvestments

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WASHINGTON AR Investments (continued)

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS



UNIVERSITY OF WASHINGTON: Discovering & Implementing What Works

Resistant germs can cause surgical site infections. Prevention is optimal, but if an infection occurs, prompt identification and treatment improve outcomes. Investigators will assess the role of patient-generated health data and mobile devices in clinical management and surveillance of surgical site infections, with the additional goal of developing recommendations for best uses of this data source and technology by care teams and infection surveillance staff during post-operative follow up.



WASHINGTON STATE UNIVERSITY: Discovering & Implementing What Works

The Modeling Infectious Diseases in Healthcare Network (MInD-Healthcare) is a virtual laboratory where researchers can investigate factors that drive spread of HAIs and simulate prevention strategies to estimate their benefits in a timely and cost-effective manner. For example, investigators will analyze the effectiveness of specific contact precaution policies in conjunction with hand hygiene initiatives. Learn more: www.cdc.gov/hai/research/MIND-Healthcare



WASHINGTON STATE UNIVERSITY: Global Expertise & Capacity Enhancements

CDC's global work to combat AR prevents the importation of AR threats into the United States. Experts are working in Kenya to develop and test a point prevalence survey of antibiotic use and track transmission of drug-resistant germs between community hospitals.



UNIVERSITY OF WASHINGTON: Global Expertise & Capacity Enhancements

CDC's global work to combat AR prevents the importation of AR threats into the United States. Experts are working with the Kenyan Ministry of Health to strengthen capacity for national infection prevention and control monitoring, surveillance and quality improvement.



PROGRAM FOR APPROPRIATE TECHNOLOGY IN HEALTH (PATH): Global Expertise & Capacity Enhancements

CDC's global work to combat AR prevents the importation of AR threats into the United States. Experts are working in Vietnam and Senegal to strengthen national infection prevention and control policies and enhance AR data collection, analysis and surveillance in healthcare facilities, as well as improve diagnosis and management of drug-resistant tuberculosis in India.

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