PENNSYLVANIA
$4,003,130
Funding for AR Activities
Fiscal Year 2018

HIGHLIGHTS

1 local CDC fellow

FUNDING TO STATE HEALTH DEPARTMENTS

$350,305
(Includes funding to Philadelphia)

RAPID DETECTION AND RESPONSE to novel or high-concern drug-resistant germs is critical to contain the spread of these infections.
With 2017 funding, Pennsylvania collaborated with a local jurisdiction to respond to 9 cases of invasive methicillin-resistant *Staphylococcus aureus* (MRSA) related to injection-related infection control breaches in an outpatient clinic. Immediate remediation prevented further cases and led to improvements in infection control practices.

$819,222

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, Pennsylvania improved prevention efforts in long-term care facilities by collaborating with CDC and the Pennsylvania Patient Safety Authority to create and distribute an educational memo addressing barriers to alcohol-based hand rub use and provide infection control education during four seminars.

$127,438
(Includes funding to Philadelphia)

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

$537,426

UNIVERSITY OF PENNSYLVANIA: 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 Pennsylvania will compare three methods of monitoring room cleaning in intensive care units to prevent healthcare-associated infections. These investigators will also convene national experts to identify gaps and collaborate on pediatric AR research. Learn more: www.cdc.gov/hai/epicenters

$598,990

THE UNIVERSITY OF PENNSYLVANIA: Innovative Prevention & Tracking
This project will measure the prevalence of and risk factors for carriage of extended-spectrum beta-lactamase producing Enterobacteriaceae (ESBL-EB) and "nightmare bacteria" carbapenem-resistant Enterobacteriaceae (CRE) in inpatients, outpatients, and households in Botswana. This research will help us understand how these bacteria spread in healthcare facilities and communities, and inform containment efforts in a country in Southern Africa.

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

www.cdc.gov/ARinvestments

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

$481,788

THE UNIVERSITY OF PENNSYLVANIA: Microbiome Assessment & Intervention
Researchers will characterize how antibiotics change the microbial communities living in patients' lungs and guts, as well as investigate the evolution of antibiotic resistance in *Pseudomonas aeruginosa* (a type of bacteria often found in the healthcare environment) during antibiotic treatment.

$488,971

THE CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP): Discovering & Implementing What Works
Researchers will develop an evidence-based benchmark rate of antibiotic prescribing for children with acute respiratory tract infections. This metric will be applied to estimate how many adverse drug effects are associated with unnecessary antibiotic treatment. This study will also design an intervention to improve antibiotic prescribing for acute respiratory tract infections.

$598,990

UNIVERSITY OF PENNSYLVANIA: 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 Botswana to determine the prevalence of extended-spectrum beta-lactamase-producing Enterobacteriaceae (ESBL-EB) and "nightmare bacteria" CRE in hospitals and communities there. This research will help experts understand risk factors for colonization (carrying and potentially spreading the germ) and provide clinical and laboratory data about how these germs can spread.

AR: antibiotic resistance   **HAI:** healthcare-associated infection

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