

AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats

FISCAL YEAR

2021

UTAH

\$10,279,728

Funding for AR Activities
Fiscal Year 2021

One local CDC AR expert

Regional Lab for the AR Lab
Network (Mountain)

CDC Prevention Epicenter

HIGHLIGHTS

FUNDING TO STATE HEALTH DEPARTMENTS



\$2,123,481

AR LABORATORY NETWORK REGIONAL LAB: 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.

In 2021, Utah provided testing surge capacity for AR outbreaks from other AR Lab Network regional labs overwhelmed by SARS-CoV-2 (COVID-19) testing or other issues brought on by the pandemic, such as supply and personnel shortages in the labs. Some states have seen increased transmission of AR pathogens in COVID-19 wards, requiring screening support to identify transmission and inform public health response. By performing AR testing for states outside of their region, Utah ensured outbreaks were identified and responded to swiftly, maintaining national AR testing capacity. These collaborations further display the flexibility of the AR Lab Network and how CDC's investments can be adapted during a crisis.



\$536,015

RAPID DETECTION & RESPONSE: State, territory, and local public health partners fight AR in healthcare, the community, and food.

Programs use the AR Lab Network to rapidly detect threats and then implement prevention, response, and antibiotic stewardship to stop the spread of resistant germs. Additional resources, appropriated to CDC to fight COVID-19, will also help in the fight against AR by improving infection prevention and control in healthcare facilities.



\$180,010

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

Utah uses whole genome sequencing to track and monitor local outbreaks of *Listeria*, *Salmonella*, *Campylobacter*, and *Escherichia coli* and uploads sequence data into PulseNet for nationwide monitoring of outbreaks and trends. In Fiscal Year 2021, Utah continued monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.



\$45,454

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.

The STD Surveillance Network (SSuN) monitors adherence to national gonorrhea treatment guidelines for patients diagnosed and reported with gonorrhea from all provider settings across funded jurisdictions.

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

ARinvestments.cdc.gov



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

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS



\$806,814

UNIVERSITY OF UTAH: CDC Prevention Epicenter

The Prevention Epicenters Program is a collaborative network between public health and experts in relevant fields of HAI and AR that responds to research priorities to protect patients. The network conducts research to support the translation of innovative infection control and prevention strategies for preventing HAIs, AR and other adverse events in all healthcare settings. This work is funded by resources appropriated to CDC to support its response to COVID-19.

[Learn more: www.cdc.gov/hai/epicenters](http://www.cdc.gov/hai/epicenters)



\$600,000

UNIVERSITY OF UTAH: Innovative Prevention & Tracking

Investigators are implementing and evaluating the Core Elements of Outpatient Antibiotic Stewardship within urgent care settings and develop interventions within the Core Elements framework that are sustainable and effective at improving antibiotic use, including reducing unnecessary antibiotic use and improving antibiotic selection.



\$4,916,756

UNIVERSITY OF UTAH: Innovative Prevention & Tracking

Investigators are developing a surveillance system prototype to be integrated with Veterans Affairs data, compiling statistical packages for outbreak analytics, and reporting on gaps in knowledge for modeling novel pathogens methods and data. This prototype will be used to develop and implement a modeling hub for infectious disease forecasting, modeling, and analytics to support translational and operational science and technology advances.



\$440,700

UNIVERSITY OF UTAH: Innovative Prevention & Tracking

Experts are working to better understand the relationship between COVID-19 and AR by evaluating data on COVID-19 and bacterial co-infections at admission versus acquiring a bacterial infection during hospitalization with COVID-19, the bacteria causing the infection and whether it is antibiotic susceptible or resistant, co-infection risk factors with multidrug-resistant organisms, and the outcome of hospitalized patients with COVID-19.



\$550,000

UNIVERSITY OF UTAH: Discovering & Implementing What Works

The Modeling Infectious Diseases in Healthcare Network (MInD-Healthcare) is a network of leading U.S. modelers that responds to evolving public health needs in healthcare settings by predicting outbreaks and investigating intervention strategies. The network develops and applies computational tools and mathematical methods for preventing HAIs, including those caused by AR pathogens. This work is also funded in part by resources appropriated to CDC to support its response to COVID-19. [Learn more: https://www.cdc.gov/hai/research](https://www.cdc.gov/hai/research)



\$80,498

UNIVERSITY OF UTAH: Discovering & Implementing What Works

University of Utah pediatric and infectious disease experts works with CDC investigators to analyze antibiotic prescribing data from outpatient healthcare settings to identify opportunities for antibiotic stewardship improvement or intervention.