# AR Solutions in Action

**CDC's Investments to Combat Antibiotic Resistance Threats** 

**2019** 

# CALIFORNIA

\$7,873,621

Funding for AR Activities
Fiscal Year 2019

One of 10 sites for the Emerging Infections Program

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



\$2,762,231 (Includes funding to LA County) RAPID DETECTION & RESPONSE: State, territory, and local public health partners fight antibiotic resistance in healthcare, the community, and food. Programs use the AR Lab Network to rapidly detect threats and implement prevention, response, and antibiotic stewardship to stop the spread of resistant germs.

With 2018 funding, California coordinated with CDC, AR Lab Network and multiple local health departments to enable early detection and a region-wide containment response to the first *C. auris* case in southern California. To rapidly assess and mitigate transmission, we performed more than 50 point prevalence surveys to identify *C. auris* colonized patients and assessed infection prevention practices at 17 high-risk facilities. This ongoing public health response facilitated containment of *C. auris* in multiple facilities.



\$1,145,822 (Includes funding to LA County) FOOD SAFETY projects protect communities by rapidly identifying drug-resistant foodborne bacteria to stop and solve outbreaks and improve prevention.

California 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 2020, California will continue monitoring these isolates for resistance genes. When outbreaks are detected, local CDC-supported epidemiologists investigate the cases to stop spread.



\$116,016 (Includes funding to LA County)

### FUNGAL DISEASE projects improve our ability to track antifungal resistance and stop it from spreading.

With funding for fungal disease surveillance, California increased their ability to identify fungal diseases, monitor for new and emerging resistance, and implement strategies to prevent its spread in high-risk areas. Improving detection for fungal diseases, like *Candida auris*, means patients receive appropriate treatment while reducing unnecessary antibiotic use.



\$1,447,459 (Includes funding to LA County) 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.

Between July 2018–June 2019, the California SURRG project tested ~8% of the 5,800+ gonorrhea cases reported in San Francisco. They identified 85 samples that did not respond optimally to recommended antibiotics, and followed up with those patients and their sex partners. California also participates in a sentinel surveillance project, the STD Surveillance Network, monitoring adherence to gonorrhea treatment guidelines. And to help inform national treatment guidelines for gonorrhea, California also participates in the Gonococcal Isolate Surveillance Project (GISP), testing how well antibiotics work on laboratory samples from sentinel STD clinics.

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

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



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**CALIFORNIA AR Investments (cont.)** 



EMERGING INFECTIONS PROGRAM (EIP) sites improve public health by translating population-based surveillance and research activities into informed policy and public health practice.

CDC's EIP network is a national resource for surveillance, prevention, and control of infectious diseases. For example, the EIP in California performs population-based surveillance for candidemia, *C. difficile*, invasive *S. aureus*, and resistant Gram-negative bacteria. The EIP conducts HAI and antibiotic use prevalence surveys and participates in collaborations with CDC Prevention Epicenters. <u>Learn more: www.cdc.gov/hai/eip</u>

### **FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS**



#### **UNIVERSITY OF CALIFORNIA, IRVINE: Microbiome Assessment & Intervention**

Previous studies and clinical trials of chlorhexidine gluconate (CHG) bathing have demonstrated large reductions in infections and multidrug-resistant organisms. However, concerns exist about the unintended consequences of CHG bathing on the skin microbiome. Researchers will evaluate changes to the skin microbiome in patients in healthcare facilities following chlorhexidine gluconate (CHG) use compared to soap bathing.



#### **HELUNA HEALTH: Innovative Prevention & Tracking**

California is working with CDC, healthcare facilities, healthcare systems, and payors to assess the impact of new regional prevention strategies and interventions on spread of multi-drug resistant organisms (MDROs). A subject matter expert will work directly with healthcare facilities and laboratories to ensure consistent reporting of MDROs to the Orange County Health Care Agency.

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