ANTIBIOTIC RESISTANCE: 
The United States Is Fighting Back

U.S. government agencies are tackling the complex threat of antibiotic resistance. The comprehensive and coordinated response implements the *U.S. National Action Plan for Combating Antibiotic-Resistant Bacteria*. The response includes cooperation with the U.S. Department of Health and Human Services, Department of Veterans Affairs, Department of Defense, Department of State, and Department of Agriculture.

**Tracking and Data**
- Using data to detect and track resistance through, for example, national lab networks
- Providing tools for healthcare facilities to track and report resistance threats and antibiotic use
- Leveraging new technologies (e.g., whole genome sequencing) to better understand resistance

**Infection Prevention and Containment**
- Using national alert systems to rapidly identify resistance
- Providing resources and expertise in outbreak response, infection prevention and control, and lab detection to implement recommendations
- Advancing research to improve current healthcare practices and identify new interventions

**Improving Antibiotic Use**
- Working with partners to improve antibiotic use across populations (e.g., outpatient antibiotic prescribing to children has decreased 16% from 2011 to 2017)
- Providing evidence and tools for facilities to implement antibiotic stewardship practices and programs (e.g., more than 80% of hospitals report having a stewardship program meeting CDC’s Core Elements)
- Collaborating with food partners to ensure optimal veterinarian antibiotic use to treat, control, or prevent infections (e.g., food animal antibiotic sales and distribution has decreased 33% from 2016 through 2017)

**Environment (e.g., water and soil) and Sanitation**
- Collaborating to identify gaps in knowledge related to resistance, the environment, and human and animal health
- Piloting data-driven solutions to guide long-term public health interventions
- Promoting better sanitation and access to safe water globally to help prevent infections and reduce need for antibiotics

**Vaccines, Diagnostics, and Therapeutics**
- Investing millions of dollars in drug, diagnostic, and vaccine development
- Supporting basic research to identify promising new treatments and improve understanding of resistance
- Identifying innovative ways to prevent infections using novel therapeutics