

FY 2022 Budget Recommendations for Antimicrobial Resistance Programs

Centers for Disease Control and Prevention (CDC)

- **Antibiotic Resistance Solutions Initiative (\$672 million):** \$672 million for the Antibiotic Resistance Solutions Initiative to achieve the goals outlined in the 2020-2025 National Action Plan for Combating Antibiotic-Resistant Bacteria. Increased funding would help expand antibiotic stewardship across the continuum of care; double grant awards at the state and local level, expand the AR Laboratory Network globally and domestically to strengthen the identification, tracking and containment of deadly pathogens; support AMR research and epi centers, and increase public and health care professional education and awareness activities. This funding is vital to achieving the Plan's goals, including a 20 percent decrease in health care-associated antibiotic-resistant infections and a 10 percent drop in community-acquired antibiotic-resistant infections by 2025.
- **National Healthcare Safety Network (\$100 million):** To meet the current and projected demands of the NHSN, deep and sustained investments in modernization and automation to alleviate reporting burden while speeding access to actionable data is needed. Increased FY2022 funding of \$100 million would expand data collection on antibiotic use and resistance in healthcare facilities as outlined in the National Action Plan for Combating Antibiotic-Resistant Bacteria 2020-2025. In 2020, many more health care facilities, particularly long term care facilities, began reporting COVID-19 data to NHSN, and new FY2022 funding will help expand that reporting to include antibiotic use and resistance data. FY2022 funding would help achieve the National Action Plan goal for 75 percent of acute care hospitals and 25 percent of critical access hospitals, reporting to the NHSN Antibiotic Resistance Option. Increased funding would also help achieve the National Action Plan goal of 100 percent of acute care and 50 percent of critical access hospitals reporting to the CDC NHSN Antimicrobial Use Option. These data help measure and drive progress toward optimizing antibiotic use. Additionally, increased FY2022 funding would allow access to technical support for more than 65,000 NHSN users.
- **Advanced Molecular Detection Initiative (\$60 million):** AMD strengthens antimicrobial stewardship to reduce AMR and improve patient outcomes and strengthens CDC's epidemiologic and laboratory expertise to detect and respond to deadly pathogens. Over the past six years, AMD has invested in federal, state, and local public health laboratories to expand the use of pathogen genomics and other advanced laboratory technologies to strengthen infectious disease surveillance and outbreak response. \$60 million in FY2022 for AMD would enhance laboratory capabilities and spur innovation, including through further integration of genomics into AMR surveillance. Increased funding would help CDC apply the work of SPHERES, a national genomics consortium led by AMD that coordinates large-scale, rapid SARS-CoV-2 sequencing across the US, to bolster AMR surveillance, detection, and response.
- **CDC Division of Global Health Protection (\$456.4 million):** In light of the COVID-19 pandemic, increased resources for this vital CDC program are needed to improve global health capacity to stop threats before they reach domestic soil as well as address growing drug resistance in developing countries. The CDC Division of Global Health Protection works to enhance infectious disease surveillance systems, strengthen laboratory capacity, train healthcare workers and disease detectives and support emergency operations centers. CDC experts provide technical assistance to 30 countries and work to detect resistant threats, prevent and contain resistant germs and improve antibiotic use. Public health experts address more than 400 diseases and health threats in 60 countries.

Assistant Secretary for Preparedness and Response (ASPR)

- **Biomedical Advanced Research and Development Authority, Broad Spectrum Antimicrobials and CARB-X (\$300 million):** The BARDA broad spectrum antimicrobials program and CARB-X leverage public/private partnerships to develop products that directly support the government-wide National Action Plan for Combating Antibiotic-Resistant Bacteria and has been successful in developing new FDA approved antibiotics. Despite this progress, the pipeline of new antibiotics in development is insufficient to meet patient needs, and \$300 million in funding is needed to help achieve the goals of the 2020-2025 Action Plan to accelerate basic and applied research for developing new antibiotics and other products. Additional funding will help prevent a post-antibiotic era in which we lose many modern medical advances that depend upon the availability of antibiotics, such as cancer chemotherapy, organ transplants and other surgeries.
- **Project BioShield Special Reserve Fund, Broad Spectrum Antimicrobials (\$200 million):** The Project BioShield SRF is positioned to support the response to public health threats, including AMR. BARDA and NIAID efforts have been successful in helping companies bring new antibiotics to market, but those companies now struggle to stay in business and two filed for bankruptcy in 2019. In December 2019, SRF funds supported a contract for a company following approval of its antibiotic—a phase in which small biotechs that develop new antibiotics are particularly

vulnerable. Additional funding is needed to expand this approach to better support the antibiotics market.

National Institutes of Health (NIH)

- **National Institute of Allergy and Infectious Diseases (\$6.520 billion):** Funding of at least \$6.520 billion for NIAID, including \$600 million for AMR research, in FY2022, would allow NIAID to address AMR while carrying out its broader role in supporting infectious diseases research. Increased FY2022 funding would support the training of new investigators to improve AMR research capacity; enhance basic, translational and clinical research on mechanisms of resistance, therapeutics, vaccines and diagnostics; and support the development of a clinical trials network to reduce barriers to research on difficult-to-treat infections as outlined in the 2025 National Action Plan.

Food and Drug Administration (FDA)

- **Combating Antibiotic Resistant Bacteria (At least an increase of \$20 million for FDA):** FDA requires support to advance antibiotic stewardship in animals and to protect antibiotic effectiveness for human and animal populations. With suggested resources, FDA can accelerate its 2018 five-year antibiotic stewardship action plan, including plans to continue to strengthen the **National Antimicrobial Resistance Monitoring System (NARMS)**, as well as other initiatives by the **FDA Center for Veterinary Medicine** to transition the remaining over-the-counter antibiotic products to veterinary supervision, promptly update product labels to fully reflect judicious use principles, identify new ways to encourage the development of antibiotic alternatives, assist academic institutions and other partners in the development of veterinary educational materials, rapidly develop strategies to collect and analyze antibiotic use data on farms and in other agricultural settings, and support surveillance capacity-building through FDA's **Veterinary Laboratory Investigation and Response Network (Vet-LIRN)**.

Department of Agriculture (USDA)

- **Antimicrobial Resistance (At least an increase of \$85 million):** Requested funding for USDA for antimicrobial resistance priorities includes support for the **Animal and Plant Health Inspection Service (APHIS)**, the **National Agricultural Statistics Service (NASS)**, and the **National Animal Health Laboratory Network (NAHLN)** to allow the agency to continue to promote agricultural stewardship, including gathering and evaluating valuable information on antibiotic use practices and identifying and characterizing injudicious use on farms and other agricultural settings through the **National Animal Health Monitoring System (NAHMS)** and other initiatives. Expanded funding for agricultural research at USDA's **Agricultural Research Service (ARS)** and the **National Institute of Food and Agriculture (NIFA) Agriculture and Food Research Initiative (AFRI)** will enable USDA investigators and scientists working at public universities, veterinary colleges, and other research settings to better understand the factors driving the emergence of resistant pathogens, as well as helping producers find new vaccines and antibiotic alternatives and improved animal management and husbandry practices that can be shared directly with farmers and livestock growers through USDA's **Cooperative Extension Service**.

US Agency for International Development (USAID) and Department of State

- **USAID global health security (\$975 million), USAID Tuberculosis Program (\$1 billion) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (\$1.56 billion):** USAID's global health security program provides technical assistance to partner countries to prevent and respond to rising rates of AMR in resource-limited settings, and requires increased resources to strengthen efforts to combat rising rates of AMR in a post-COVID-19 pandemic world. Recommended funding for USAID's TB program and the Global Fund will not only allow continued reductions in malaria and TB, but help staunch the growth of drug-resistant forms of these infections, particularly of drug-resistant forms of tuberculosis, which is the only airborne drug resistant disease and in addition to COVID-19 is the biggest infectious disease killer globally. Drug-resistant forms of TB drive rising rates of antimicrobial resistance in many parts of the world, particularly in resource-limited countries with underdeveloped healthcare infrastructure, and poses a significant threat to health security in the U.S. and globally.

Department of Defense (DoD)

- **Defense Health Program/RDT&E (Increase Support for AMR R&D):** The DHP and the Research, Development, Test & Evaluation (RDT&E) address key military medical challenges including AMR. Funding supports strategies to prevent, mitigate, and treat antibiotic resistant bacteria. The DHP also supports a Multi-Drug Resistant Surveillance Network (MRSN) program that includes projects for Army service level support.