Drug-Resistant Infections & the Immediate & Future Demand for Novel Antimicrobials

Investments, innovations, and collective action needed to stop antimicrobial resistance

Combating drug-resistant infections and antimicrobial resistance (AMR) requires a range of policy approaches including incentives for innovative novel antibiotics and diagnostics, effective threat surveillance, and coordination globally to slow the emergence and spread of AMR.

During a keynote, Senator Todd Young discussed biodefense policies and the re-introduced PASTEUR Act. Dr. Mark McClellan then moderated a discussion on the impact of drug-resistant infections and the value of antimicrobials. Speakers discussed the global death toll of AMR and the pricelessness of life-saving antimicrobials. They called for incentives that reflect the societal value of antimicrobials and ensure their continued development. Speakers highlighted the importance of preventing infections by advancing surveillance capabilities, vaccines, and the workforce focused on infectious diseases and antimicrobial development. Without ongoing efforts to implement incentives to align clinicians, public health officials, antimicrobial developers, and investors, policymakers may miss an urgent opportunity to prevent substantial harm from rising drug-resistant infections and AMR.

Key Takeaways & Recommendations

- Effective antimicrobials—particularly antibiotics—enable critical medical care, including chemotherapy and surgery. However, rising AMR isn’t a future problem, it’s a current problem, associated with nearly 5 million deaths in 2019.

- For certain difficult-to-treat infections, specialists employ antibiotic combinations for which there is no robust evidence for effectiveness. Despite this, the R&D pipeline for therapies that combat AMR is woefully insufficient and stymied by market challenges.

- Although antibiotics offer substantial value to society, the small biotechs that support most antibiotic development continue to face bankruptcy.

- Revised EU pharmaceutical legislation proposed April 26 includes regulatory and financial incentives—transferable exclusivity vouchers and procurement mechanisms—to address AMR.

- During the COVID-19 pandemic, the U.S. created a novel vaccine based on a new modality thanks investments in that new modality over the decades. Investments in workforce and innovation are critical to enabling much needed breakthroughs in antimicrobial development.