

The Unequal Threat of Antimicrobial Resistance



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Antimicrobial resistance (AMR), the development of resistance in pathogens to treatments like antibiotics, is a global public health crisis that is making previously treatable infections life-threatening. In the United States alone, antimicrobial-resistant infections caused 3 million infections and 48,000 deaths in 2020 and nearly 173,000 deaths in 2019. Six of the 18 most alarming antimicrobial resistant threats cost the United States more than \$4.6 billion annually. Patients of color are at an increased risk of developing a resistant infection.

- Communities of color are at an even higher risk of resistant infections due to social determinants of health—factors related to where you work, play, live and how you interact with your environment—and ongoing inequities in the health care system.
- Some studies suggest that Black, Latinx/Hispanic and lower-income patients are at higher risk of infection with community-acquired antibiotic-resistant pathogens such as methicillin-resistant *Staphylococcus aureus*, a type of bacteria that most commonly causes painful skin infections and can also cause serious infections in bones, joints, lungs and other parts of the body, and drug-resistant *Streptococcus pneumoniae*, a type of bacteria that can cause pneumonia, meningitis and bloodstream infections.^{III}
- Rates of resistant candidemia, a fungal bloodstream infection, are twice as high in Black patients compared to non-Black patients.^{iv}
- In 2020, the majority of U.S. tuberculosis cases occurred among historically marginalized communities— Asian American and Pacific Islander, Latinx/Hispanic and Black populations. Resistant infections may be more likely in these groups as a result.
- Black women have more than double the risk of 30-day mortality due to carbapenem-resistant Enterobacteriaceae infections than both White women and Black men, highlighting the intersection of gender and race in medical outcomes for resistant infections.
- Pediatric patients are especially at risk of AMR infection—one in five deaths from resistant infections occur in children under 5 vi

Medical inequities perpetuate increased rates of resistant infections and resistant health care-acquired infections (HAIs).

- Sepsis, the body's overwhelming response to inadequately treated infection, is the second leading cause of maternal mortality in the United States, with Black women facing double the risk compared to White women. Unsafe abortion and delays in pregnancy care can lead to increased risk of resistant infection and sepsis. Pregnancy-related mortality rates among Black and American Indian and Alaska Native (AIAN) patients are more than three and two times higher, respectively, compared to the rate for White patients.
- Non-Hispanic Black individuals are less likely to receive timely antimicrobials for the treatment of severe morbidities including sepsis and septic shock in the intensive care unit.[™] Delays in treatment increase mortality and increase the spread of resistant infections.
- Hospitals that serve historically marginalized communities are less likely to have adequate personnel
 to lead antimicrobial stewardship programs that are essential to ensure patients receive optimal
 antimicrobial treatment.

- Lower rates of vaccination in Latinx/Hispanic, Black and AIAN patients make them more likely to be hospitalized for extended intervals, which can put them at higher risk for a resistant HAI during their stay.*
- Lower-income and Latinx/Hispanic communities commonly report self-medication with nonprescription antibiotics, the use of "leftover" antibiotics and the purchase of foreign-made products—these factors can increase the risk of resistant infections.xi

Occupational hazards can lead to an increased risk of AMR in Black and Latinx populations.

- Black and Latinx/Hispanic workers make up a large proportion of the workforce in occupations with high potential risk of exposure to disease and infection at work, such as construction, retail and health care.^{xii}
- People of color are overrepresented in health care positions involving tasks like bathing, toileting, mobilizing and transporting patients, which may increase their occupational exposure to resistant infections.^{xiii}
- Nearly 60% of people working in U.S. meat-processing plants are African American or Latinx/Hispanic—increased contact with livestock can lead to animal-to-human transmission of resistant infections.**

Without intervention, rates of resistant infections, hospitalizations and deaths will continue to increase in communities of color in the United States.

Solution:

The bipartisan **Pioneering Antimicrobial Subscriptions to End Upsurging Resistance (PASTEUR) Act** (H.R. 2940/S. 1355) would both incentivize pharmaceutical companies to develop novel antimicrobials through a federally funded subscription-based program and provide new funding for antimicrobial stewardship programs to improve the appropriate use of antimicrobials (with priority given to rural, critical access and safety net hospitals, and long-term care facilities).^{xv}

Solution:

Increase funding for efforts by the Biomedical Advanced Research and Development Authority, the Centers for Disease Control and Prevention and the National Institute of Allergy and Infectious Diseases to combat AMR through improved surveillance, prevention, stewardship, research and innovation.

For further information or collaboration, contact Amanda Woodson, manager of government relations, at awoodson@idsociety.org.

Endnotes

- i CDC. Special Report: COVID-19 US Impact on AMR. 2024.
- ii Ibid.
- iii Nat Med. Antibiotic resistance: a call to action to prevent the next epidemic of inequality. 2021.
- iv CDC. Health Equity and Antimicrobial Resistance. 2024.
- v University of Minnesota. Study finds higher death risk in Black women with multidrug-resistant bloodstream infections. 2024.
- vi The Lancet. Global burden of bacterial antimicrobial resistant infections: 2019. 2022.
- vii Sepsis Alliance. Maternal Sepsis Week and Why it Matters. 2024.
- viii IDSA. Reducing Access to Safe and Legal Abortion: Infectious Diseases and Health Equity Impacts. 2022.
- ix Ibid.
- x CDC. Health Equity and Flu. 2024.
- xi AMA Journal of Ethics. How Should Health Care Respond to Threats Antimicrobial Resistance Poses to Workers? 2024.
- xii Ibid.
- xiii Ibid.
- xiv Ibid.
- xv 118th Congress. <u>S.1355 PASTEUR Act of 2023.</u> 2023.