

ANTIMICROBIAL RESISTANCE

Antimicrobial resistance (AMR) occurs when microbes such as bacteria, viruses, fungi, and parasites evolve over time and become resistant to modern medicines. These resistant microbes, also known as “superbugs,” make infections harder to treat, lead to more widely spread infections, and cause more people to die.¹

IN 2019, APPROXIMATELY

1.27 MILLION

PEOPLE DIED FROM AMR

AN ESTIMATED

4.95 MILLION

DEATHS WERE ASSOCIATED WITH BACTERIAL AMR³

“Modern medicine depends on the availability of effective antibiotics: chemotherapy for cancer treatment, organ transplants, surgeries, intensive care for pre-term newborns, and many other medical activities.”²

WHY IS AMR AN URGENT PUBLIC HEALTH THREAT?



It Kills People: If unmanaged, drug-resistant superbugs are expected to kill over 10 million people every year by 2050. (More than cancer!)⁴



It's Expensive: AMR leads to longer hospital stays and more expensive intensive care. It is already costing health systems billions of dollars. The CDC estimates a cost of \$55B just in the U.S. and is expected to cost more than 100 trillion dollars worldwide by 2050.⁵



New Medicines are Lacking: The antimicrobials we use today are becoming ineffective due to resistance. There are only a few promising new antimicrobials in development. Out of the 80 products being studied, less than a handful are expected to make it to market in the next few years.⁶

PROGRESS AND STATUS



In 2015, the World Health Organization endorsed a *Global Action Plan on AMR*, encouraging national governments to prioritize five key objectives: 1) improve awareness, 2) strengthen surveillance, 3) reduce infections, 4) optimize the use of antimicrobial medicines in humans and animals, and 5) invest sustainably in new medicines, diagnostic tools, vaccines, and other interventions.⁷



By 2022, 100+ countries had developed their own AMR action plans.⁸



In the U.S., the Pioneering Antimicrobial Subscriptions to End Upsurging Resistance (PASTEUR) Act is being considered by Congress. In Europe, various stakeholders, including the European Parliament's Health Working Group, are working to advance similar policies to incentivize the development of new medicines.^{9,10}

CASE STUDY



DKI Health worked with a global manufacturer of a diverse portfolio of anti-infective medicines to create and execute a global patient AMR awareness and advocacy program. DKI Health led patient summits with 25+ organizations and helped to form the AMR Patient Alliance. Our work supported the development of the AMR Patient Consensus Document and the creation of multi-stakeholder AMR communication and messaging materials.

PUBLICATIONS

[COVID and AMR: Crisis Reframes Antibiotics Fight](#)
PharmExec, Dec. 11, 2020



[Antimicrobial resistance during the COVID-19 pandemic: the missing patient perspective](#)
JAC-Antimicrobial Resistance, March 22, 2021

WHY WORK WITH DKI HEALTH?

DKI Health helps biopharmaceutical companies integrate pressing public health needs with business and commercial strategies. We also work with a wide range of stakeholders, including government and non-government agencies; healthcare providers; and patient and caregiver communities, to increase awareness and empower decision-making.

Together, We Can Transform Patient Lives

www.dkihealth.com

REFERENCES

1. World Health Organization: Antimicrobial resistance, Nov 2021

2. Antimicrobial resistance: a global multifaceted phenomenon. Prestinaci F, 2015

3. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Murray CJ, 2022

4. CDC: Antibiotic Resistance Threats in the United States, Dec 2019

5. Antimicrobial Resistance: Implications and Costs: Dadgostar P, Dec 2019

6. World Health Organization: Global shortage of innovative antibiotics fuels emergence and spread of drug-resistance, April 2021

7. World Health Organization: Global Action Plan on AMR, 2015

8. World Health Organization: Global Database for Tracking Antimicrobial Resistance (AMR) Country Self-Assessment Survey (TRACSS), 2022

9. US Congress: S.2076 - Pasteur Act of 2021

10. European Parliament: Antimicrobial resistance - New incentives to improve the accessibility and availability of antimicrobial medicinal products, Feb 2023

11. European Parliament: Antimicrobial resistance - New incentives to improve the accessibility and availability of antimicrobial medicinal products, Feb 2023

12. AMR Patient Alliance / International Alliance of Patient Organizations