

Bacterial Antimicrobial Resistance (AMR) Threatens Global Health



Rising AMR Threat

Bacterial AMR is becoming a major public health threat as bacteria increasingly evade treatments, making antibiotics less effective¹



Global Mortality

In 2019, nearly **5 million estimated deaths** were associated with bacterial AMR globally, including 1.27 million directly attributed to resistant bacterial infections¹



Country Statistics

In low- and middle-income countries, bacterial AMR is associated with **4.3 million deaths**.² In OECD* countries, **1 in 5 bacterial infections** are antibiotic resistant³



Future Projections

Bacterial AMR could cause up to **10 million deaths** globally per year by **2050**,⁴ matching the 2020 cancer death toll⁵

*OECD, Organization for Economic Co-operation and Development

Challenges in Healthcare

Resistant bacterial strains complicate treatment, especially in healthcare settings where healthcare-acquired resistant infections account for more than **60% of AMR-related deaths**. Additionally, AMR leads to costly treatments, aggressive therapies, longer hospital stays, and reduced work productivity³



Factors Contributing to Bacterial AMR



01

Climate change worsens the impact of bacterial AMR by altering infection patterns, incidence rates, and shifts in populations at risk⁶

02

Poor waste management and water treatment facilitate transmission of drug-resistant microbes⁶

03

Extensive antibiotic use in agriculture contributes to spread of resistant bacteria from food-producing animals to humans through shared environments⁷

04

Human antibiotic use is the primary driver of bacterial AMR, with the economic impact of resistant infections potentially matching a COVID-19 pandemic every 5 years⁶

Embracing One Health to Combat Bacterial AMR

Integrated Approach

The One Health framework, acknowledging integrated efforts across human, animal, and environmental health, will be helpful in addressing bacterial AMR^{6,8}

Investments in One Health

Surveillance

Significant investments have been made in One Health surveillance to monitor and control the spread of AMR through various initiatives globally⁶



Need for Further Action

There is a need to reduce antibiotic use across all sectors, improve waste management, and invest in innovative solutions to reduce resistance⁶

Collaborative Efforts

Staying informed and working collaboratively can ensure to protect global health and outcomes for all⁶

References

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