AMR landscape and achievements

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- Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time, and no longer respond to medicines.
- AMR makes infections harder to treat and increases the risk of disease spread, severe illness and death.
- WHO has declared AMR as one of the top 10 global public health threats facing humanity.







A major threat to global health

Drug-resistant infections affect the lives of billions worldwide



child dies every
3 min from
MDRO sepsis¹

1.27
million deaths
attributable to
bacterial AMR
per year²

28

million people living in poverty by 2050³ US\$ 1

trillion additional healthcare Costs by 2050³ 7.5%

decline in livestock by 2050³



^{1.} Ramanan Laxminarayan et al. Access to effective antimicrobials: a worldwide challenge. Lancet. 2016; 387: 168-175 / https://www.reactgroup.org/news-and-views/news-and-opinions/year-2020/new-react-film-children-at-risk-the-threat-of-antibiotic-resistance/; 2. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. The Lancet 2022 https://www.sciencedirect.com/science/article/pii/S0140673621027240?via/%3Dihub: 3. https://www.worldbank.org/en/topic/health/publication/drug-resistant-infections-a-threat-to-our-economic-future.

Global burden of AMR (estimates for 2019)

- 1.27 million deaths per year are directly caused by bacterial AMR.
- 4.95 million deaths per year are associated with bacterial AMR (more than HIV, TB and Malaria combined).
- 1 in 5 deaths caused by AMR occurred in children under the age of five – often from previously treatable infections.
- 6 Priority bacterial pathogens account for >70% of the AMR deaths

Antimicrobial Resistance Collaborators, Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet. 2022 Feb 12;399(10325):629-655. doi: 10.1016/S0140-6736(21)02724-0. Epub 2022 Jan 19. Erratum in: Lancet. 2022 Oct 1;400(10358):1102. PMID: 35065702; PMCID: PMC8841637.

One Health response to AMR: WHO leads human health

A sustained Global/National One Health Response is essential to tackle antimicrobial resistance and achieve the Sustainable Development Goals







Food & feed



Plants & crops



Environment



Terrestrial & aquatic animals

























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