ANTIMICROBIAL RESISTANCE

IHME

Antibiotic-resistant infections are increasing quickly, made worse by inequalities

Highlights

By 2050, deaths from antibiotic-resistant infections* could rise by roughly two-thirds unless the world intervenes.

Better health care for severe infections and access to antibiotics, and developing new antibiotics to replace those that have become ineffective could save millions of lives by 2050, particularly in South Asia and sub-Saharan Africa.

Deaths are increasing fastest among older age groups, rising more than 80% between 1990 and 2021.

Encouragingly, deaths from antibiotic-resistant infections are declining among children – falling 50% among children under age 5 between 1990 and 2021 – thanks to interventions including vaccination, clean water, and improved sanitation and hygiene.

What's new in this study?

Forecasts of deaths and disease burden for antibiotic-resistant infections through 2050

Most comprehensive analysis of deaths from antibiotic-resistant infections over time dating back to 1990

Impact of different interventions including:

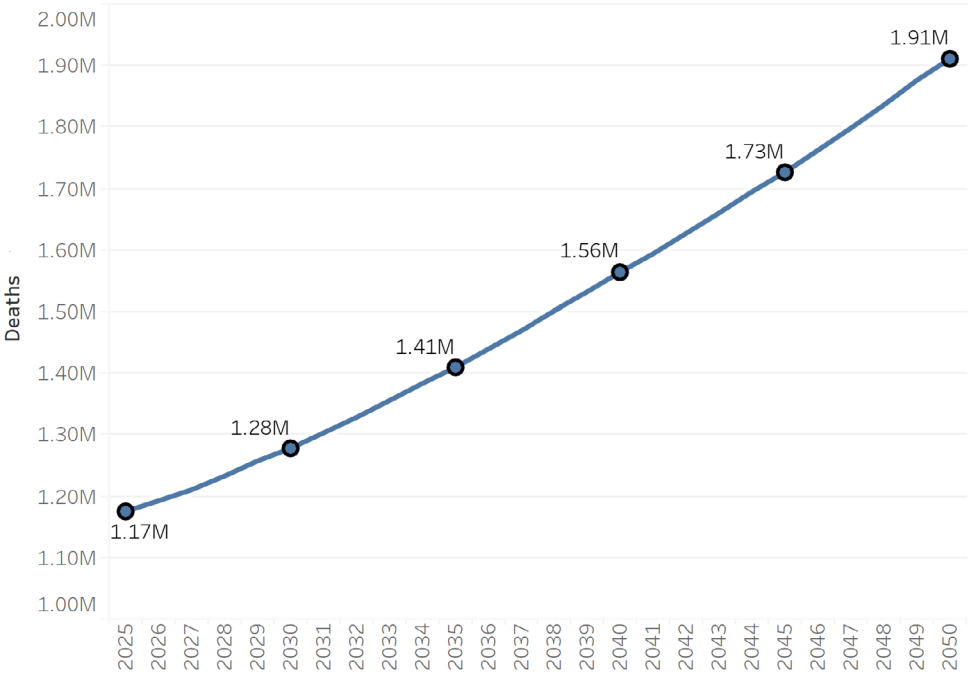
- Better health care for severe infections and access to antibiotics
- Creation of new antibiotics to treat drug-resistant pathogens

Data from 520 million individual records

*Includes deaths directly attributable to antimicrobial resistance.

Deaths attributable to antibiotic-resistant infections are projected to reach nearly 2 million by 2050

Forecasted deaths attributable to antibiotic-resistant infections, 2025-2050



92 million

Deaths that could be prevented between 2025 and 2050 through a combination of better health care for severe infections and access to antibiotics.

11 million

Deaths that could be averted through development of new antibiotics to replace those that no longer work to treat infections.*

**Includes bacterial infections from a type of bacteria known as gram-negative bacteria.*

Source: https://bit.ly/GBD21-AMR, *The Lancet*.

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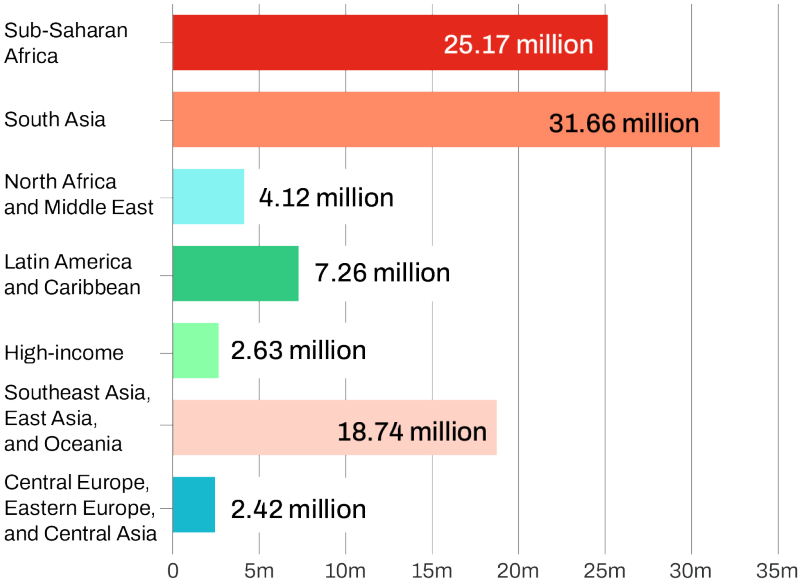
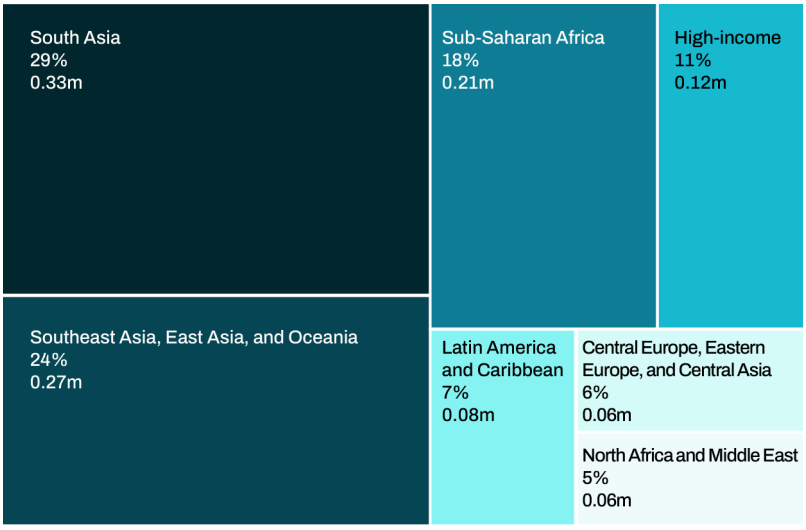
Out of the **92 million** deaths that could be averted through better health care for severe infections and access to antibiotics, many of them would be in sub-Saharan Africa and South Asia, underscoring inequalities across locations.

Deaths averted through better health care for severe infections and access to antibiotics by super-region



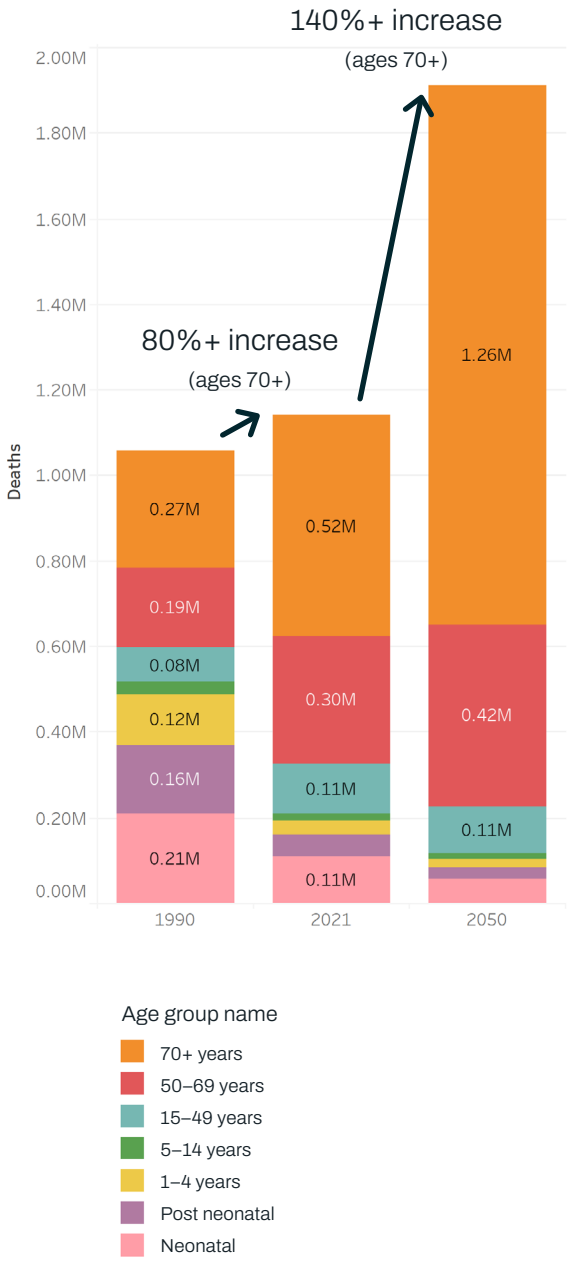
South Asia; Southeast Asia, East Asia, and Oceania, and sub-Saharan Africa are hardest hit by antibiotic-resistant infections, experiencing the largest number of deaths.

Percentage of deaths due to antibiotic-resistant infections by super-region, 2021



Rapid growth in the number of older people in the world coupled with their greater vulnerability to infection are contributing to a steep increase in deaths from antibiotic resistance in older age groups.

Attributed AMR deaths by year and age



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