Antibiotic-resistant bacteria pose an urgent and growing public health threat.

Common bacteria, such as those that cause urinary tract infections and sexually transmitted infections, are becoming increasingly difficult to treat. Without effective antibiotics, even simple infections could become deadly, making medical procedures like surgery, chemotherapy, and dialysis too dangerous.

Globally, some 1.27 million people died from antibiotic-resistant infections in 2019.

2.8 million antibiotic-resistant infections occur in the U.S. each year.

More than 35,000 die as a result.
How do bacteria become resistant to antibiotics?

Bacteria are constantly evolving to beat the drugs used to fight them. As bacteria mutate, some develop the ability to fight off different antibiotics and survive to multiply and spread resistance.

Sooner or later, those superbugs will evolve to defeat every antibiotic on the pharmacy shelf, so new drugs to fight infections will always be needed.

What is driving the rise in multidrug-resistant superbugs?

The more antibiotics are used, the less effective they become. Unnecessary and inappropriate use accelerates that process.

1 in 3 antibiotic prescriptions written in doctors’ offices, emergency rooms, and hospital-based clinics are unnecessary—this equals about 47 million prescriptions each year.

52% only about half of patients treated with antibiotics for common infections received the recommended antibiotic based on established prescribing guidelines.

The COVID-19 pandemic has intensified the superbug threat.

Early in the pandemic, antibiotics were often given to patients even though these drugs do not effectively treat viral illnesses.

The U.S. saw a 15% increase in infections and deaths from drug-resistant bacteria in the first year of the COVID-19 pandemic.
Today, there are fewer than 50 antibiotics in global clinical development.

Alarmingly, just a handful of those drugs are targeted against the pathogens that present the most urgent threats.

What can be done to combat antibiotic-resistant bacteria?

Better stewardship for existing antibiotics

Eliminate inappropriate use of these lifesaving drugs.

Innovation to find new types of antibiotics

Address the complex economic barriers hindering the development of new treatment options for patients.

Together, these efforts will help save antibiotics and protect the health of patients today and for generations to come.
This infographic was updated in December 2023 to reflect the most current information on the antibiotics pipeline.

For more information, please visit: pewtrusts.org/antibiotic-resistance-project

The Pew Charitable Trusts

Contact: Heather Cable, manager, communications
Email: hcable@pewtrusts.org
Project website: pewtrusts.org/antibiotic-resistance-project

Celebrating its 75th anniversary, The Pew Charitable Trusts uses data to make a difference. Pew addresses the challenges of a changing world by illuminating issues, creating common ground, and advancing ambitious projects that lead to tangible progress.