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

Common bacteria, such as those causing strep throat, urinary tract infections, and gonorrhea, 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.

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.

In human health care:

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.

On the farm:

13 million pounds of antibiotics important to human medicine were sold for use in food animals in 2018.
Meanwhile, discovery of novel antibiotics is not keeping pace with the emergence of new superbugs.

![Chart showing the number of antibiotic classes discovered by decade from 1900-40 to 2010s.]

**What can be done to combat antibiotic-resistant bacteria?**

**Better stewardship for existing antibiotics**

Eliminate inappropriate use of these lifesaving drugs in both humans and animals.

Reduce the need for antibiotics by using alternative and nontraditional approaches to disease treatment and prevention.

**Innovation to find new types of antibiotics**

Support targeted research initiatives to overcome scientific challenges impeding the discovery of new 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.
Editor’s note: This infographic was updated in July 2020 to reflect the release of the most recent data.

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

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