Common bacteria, such as those causing strep throat and urinary tract infections, are becoming increasingly difficult to treat.

Without effective antibiotics, even simple infections could become deadly, making routine medical procedures like surgery, chemotherapy, and dialysis too dangerous.
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:**

18 million pounds of antibiotics important to human medicine were **sold for use in food animals** in 2016.
Meanwhile, discovery of novel antibiotics is not keeping pace with the emergence of new superbugs.

Nearly every antibiotic in use today is based on a discovery made more than 30 years ago.

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

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

The Pew Charitable Trusts is driven by the power of knowledge to solve today’s most challenging problems. Pew applies a rigorous, analytical approach to improve public policy, inform the public, and invigorate civic life.