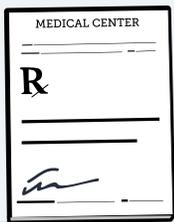


# National Targets to Reduce Unnecessary Antibiotic Use in Outpatient Settings

The Pew Charitable Trusts partnered with the Centers for Disease Control and Prevention, and other public health and medical experts, to evaluate current outpatient antibiotic prescribing habits in the United States, determine targets for reducing inappropriate use, and identify key steps needed to reach these goals.



## What are outpatient health care settings?

Outpatient health care settings refer to health care facilities, such as **primary care clinics, emergency rooms, and hospital-based specialty clinics**, where patients are treated without being admitted or hospitalized.\*

## What is antibiotic stewardship?

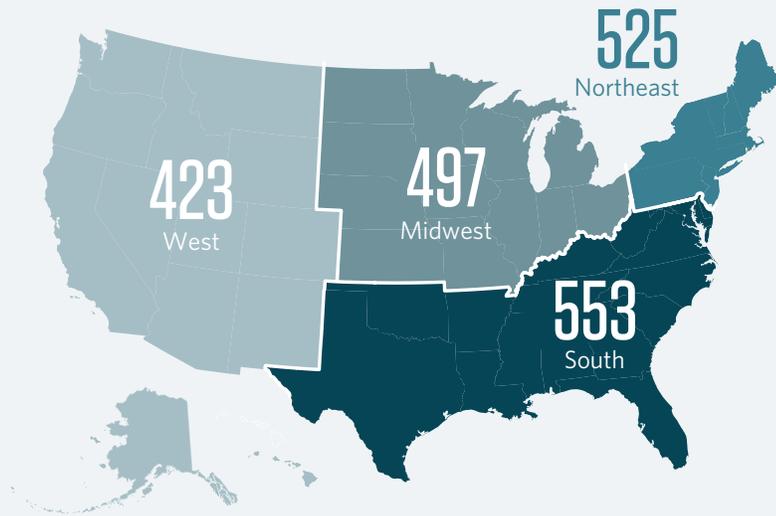
**Antibiotic stewardship aims to ensure that antibiotics are prescribed only when indicated** (i.e., for a known or suspected bacterial infection), and **prescribed at the right dose and duration of therapy**. These efforts are critical to limiting the development of antibiotic resistance.



\* Due to data limitations, the following outpatient settings were not included in this analysis: dental offices, retail clinics, urgent care, and telemedicine. These settings play an important role in the provision of outpatient health care services, and appropriateness of antibiotic use in these facilities should be a priority for future research.

## What does outpatient antibiotic prescribing look like today?

Outpatient Antibiotic Prescriptions (per 1,000 People) by Region



Source: Analysis of NAMCS and NHAMCS data on U.S. antibiotic prescribing, 2010-2011

Approximately **13%** percent of all outpatient office visits—or about **154 million visits annually**—result in an antibiotic prescription.

**44%** of outpatient antibiotic prescriptions are written to treat **acute respiratory conditions**,\* many of which are either caused by viruses or may resolve without an antibiotic.

**Individuals who live in Southern states are prescribed more antibiotics**, on average, than individuals in any other region.

\* Acute respiratory conditions include the following diagnoses: sinus infections, middle ear infections, pharyngitis, viral upper respiratory infections (i.e., the “common cold”), bronchitis and bronchiolitis, asthma and allergy, influenza, and pneumonia.

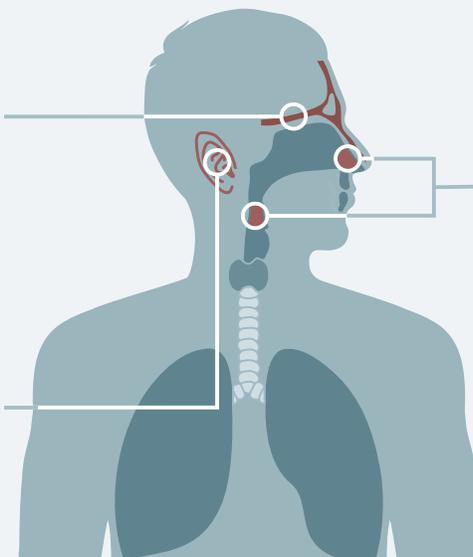
## How much of current outpatient antibiotic prescribing is unnecessary?

At least **30 percent** of outpatient antibiotic prescriptions are unnecessary, resulting in **47 million excess prescriptions each year**.

**Half of all antibiotic prescriptions** written for acute respiratory conditions are unnecessary.

**Sinus infections**  
**6 million** unnecessary prescriptions each year

**Middle ear infections**  
**2.5 million** unnecessary prescriptions each year



**Viral upper respiratory infections, e.g., the “common cold”**  
**8 million** unnecessary prescriptions each year

## What is the national goal for reducing inappropriate antibiotic prescribing?

In 2015, the White House set a goal of reducing inappropriate antibiotic use in outpatient settings by 50 percent within the next five years. Based on the current amount of unnecessary antibiotic prescribing, this equates to **15 percent fewer antibiotic prescriptions per year by 2020—eliminating more than 23 million unwarranted prescriptions of antibiotics annually.**

## How will the United States reach this goal?

Expanding outpatient antibiotic stewardship efforts will be critical to reducing unnecessary antibiotic prescribing and reaching the goal set by the White House. These efforts include:



**Provider audit and feedback**



**Clinical decision support**



**Communication training**

Coordinated and sustained action from a wide range of health care stakeholders will help ensure that outpatient antibiotic stewardship efforts are expanded nationwide.



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