

# Antibiotics: Will they work when you really need them?

## Get Smart About Antibiotics Week

November 17-23, 2014

### Did you know?

1. Antibiotic resistance is one of the world's most pressing public health threats.
2. Antibiotics are the most important tool we have to combat life-threatening bacterial diseases, but antibiotics can have side effects.
3. Antibiotic overuse increases the development of drug-resistant germs.
4. Patients, healthcare providers, hospital administrators, and policy makers must work together to employ effective strategies for improving antibiotic use – ultimately improving medical care and saving lives.

### Scope of the Problem

- Antibiotic resistance occurs when bacteria change in a way that reduces or eliminates the effectiveness of antibiotics.
- Infections with resistant bacteria have become more common in healthcare and community settings, and many bacteria have become resistant to more than one type or class of antibiotic.
- Antibiotics can cure bacterial infections, not viral infections. Treating viruses with antibiotics does not work, and it increases the likelihood that you will become ill with an antibiotic-resistant bacterial infection.
- It is estimated that more than 50% of antibiotics are unnecessarily prescribed in office settings for upper respiratory infections (URIs) like cough and cold illness, most of which are caused by viruses.
- Up to 50% of antibiotic use in hospitals is either unnecessary or inappropriate.
- In children, reactions to antibiotics are the most common cause of emergency department visits for adverse drug events.
- Children may have up to nine colds each year. Three out of 10 children who visit an outpatient provider with the common cold receive an antibiotic. This is an improvement from previous years, but antibiotics are not indicated for a common cold.

Antibiotics are powerful tools for fighting illness, but overuse of antibiotics has helped create new strains of infectious diseases.

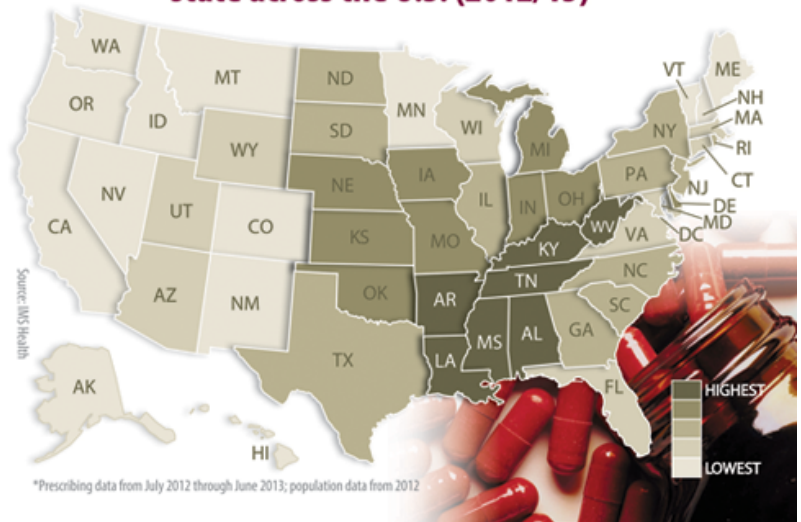
The problem is that we expect antibiotics to work for every illness, but they **don't**.



## Why we must act now

- The way we use antibiotics today or in one patient directly impacts how effective they will be tomorrow or in another patient; they are a shared resource.
- Antibiotic resistance is not just a problem for the person with the infection. Some resistant bacteria have the potential to spread to others – promoting antibiotic-resistant infections.
- Since it will be many years before new antibiotics are available to treat some resistant infections, we need to improve the use of antibiotics that are currently available.

## Antibiotic prescribing rates by state across the U.S. (2012/13)\*



## The public can

- Take the antibiotic exactly as the doctor prescribes. Never skip doses or stop taking an antibiotic early unless your doctor tells you to do so.
- Only take antibiotics prescribed for you; do not share or use leftover antibiotics. Antibiotics treat specific types of infections. Taking the wrong medicine may delay correct treatment and allow bacteria to multiply.
- Do not save antibiotics for the next illness. Discard any leftover medication once the prescribed course of treatment is completed.
- Prevent infections by practicing good hand hygiene and getting recommended vaccines.
- Do not ask for antibiotics when your doctor thinks you do not need them. Remember antibiotics have side effects. When your doctor says you don't need an antibiotic, taking one may do more harm than good.

Illness	Usual Cause		Antibiotic Needed
	Viruses	Bacteria	
Cold/Runny Nose	✓		<b>NO</b>
Bronchitis/Chest Cold (in otherwise healthy children and adults)	✓		<b>NO</b>
Whooping Cough		✓	Yes
Flu	✓		<b>NO</b>
Strep Throat		✓	Yes
Sore Throat (except strep)	✓		<b>NO</b>
Fluid in the Middle Ear (otitis media with effusion)	✓		<b>NO</b>
Urinary Tract Infection		✓	Yes



### Centers for Disease Control and Prevention

For more information please contact Centers for Disease Control and Prevention  
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