



Fast Facts

Facts About Antibiotic Resistance

- Antibiotic resistance has been called one of the world’s most pressing public health problems.
- The number of bacteria resistant to antibiotics has increased in the last decade. Many bacterial infections are becoming resistant to the most commonly prescribed antibiotic treatments.
- Every time a person takes antibiotics, sensitive bacteria are killed, but resistant germs may be left to grow and multiply. Repeated and improper uses of antibiotics are primary causes of the increase in drug-resistant bacteria.
- Misuse of antibiotics jeopardizes the usefulness of essential drugs. Decreasing inappropriate antibiotic use is the best way to control resistance.
- Children are of particular concern because they have the highest rates of antibiotic use.
- Antibiotic resistance can cause significant danger and suffering for people who have common infections that once were easily treatable with antibiotics. When antibiotics fail to work, the consequences are longer-lasting illnesses, more doctor visits or extended hospital stays, and the need for more expensive and toxic medications. Some resistant infections can even cause death.

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Antibiotic Prescribing: Attitudes, Behaviors, Trends & Cost

- Parent pressure makes a difference. For pediatric care, a study showed that doctors prescribe antibiotics 62% of the time if they perceive parents expect them and 7% of the time if they feel parents do not expect them.[\[1\] \(#ref1\)](#)
- Antibiotics were prescribed in 68% of acute respiratory tract visits – and of those, 80% were unnecessary according to CDC guidelines.[\[2\] \(#ref2\)](#)
- National Ambulatory Medical Care Survey (NAMCS) data shows that overall antibiotic prescribing dropped from 13.8 prescriptions per 100 office visits to 12.0 prescriptions per 100 office visits comparing 1997-98 to 2005-06 with a 13% reduction in overall antimicrobial prescribing.[\[3\] \(#ref3\)](#)
- According to NAMCS, the Get Smart Campaign contributed to a reduction in antimicrobials prescribed for children <5 years in ambulatory care otitis media (ear infection) visits. In 2007 47.5 antimicrobials were prescribed per 100 visits, down from 61 in 2006 and 69 in 1997.[\[4\] \(#ref4\)](#)
- Among children younger than 5 years, annual ARTI (acute respiratory tract infections) visit rates decreased by 17% from 1883 per 1000 population in 1995-96 to 1560 per 1000 population in 2005-06, primarily due to a 33% decrease in visit rates for otitis media.
- \$1.1 billion is spent annually on unnecessary adult upper respiratory infection antibiotic prescriptions.[\[5\] \(#ref5\)](#)
- Get Smart has contributed to 25% reduction in antimicrobial use per outpatient office visit for presumed viral infections (NAMCS); intervention studies show a reduction of 8 to 26% for antibiotic prescriptions.[\[6\] \(#ref6\)](#)

References


1. Mangione-Smith R, McGlynn EA, Elliott MN, et al: The relationship between perceived parental expectations and pediatrician antimicrobial prescribing behavior. *Pediatrics* 103:711-718, 1999.
2. Scott JG, Cohen D, DiCicco-Bloom B, Orzano AJ, et al: Antibiotic use in acute respiratory

infections and the ways patients pressure physicians for a prescription. *J Fam Pract*: 50(10): 853-8, 2001.


3. National Ambulatory Medical Care Survey (NAMCS).
4. Grijalva CG, Nuorti JP, Griffin M: Antibiotic prescription rates for acute respiratory tract infections in US ambulatory settings. *JAMA* 302: 758-766, 2009.
5. Fendrick AM, Monto AS, Nightengale B, Sarnes M: The economic burden of non-influenza related viral respiratory tract infection in the United States. *Arch Int Med*: 163(4): 487-94, 2003.
6. National Ambulatory Medical Care Survey (NAMCS).

Now that you know the facts, test your knowledge with this [antibiotics quiz](http://www.cdc.gov/getsmart/resources/quiz.html) (<http://www.cdc.gov/getsmart/resources/quiz.html>).

Related Materials

- [What Everyone Should Know and Do \(know-and-do.html\)](#)
Learn more about what you should know and do to help prevent antibiotic resistance.
- [Antibiotic Resistance Questions & Answers \(antibiotic-resistance-faqs.html\)](#)
- [FOOD AND DRUG ADMINISTRATION VIDEO ABOUT ANTIMICROBIAL RESISTANCE](http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/ucm134359.htm) 
(<http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/ucm134359.htm>)

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