

CDC sounds alarm on antibiotic-resistant bacteria

September 16 2013, by Dennis Thompson, Healthday Reporter



Report cites overuse of antibiotics as key to the life-threatening problem.

(HealthDay)—More than 2 million people come down with infections from antibiotic-resistant bacteria every year in the United States, leading to at least 23,000 deaths, according to a report released Monday by federal health officials.

The report marks the first time that the U.S. Centers for Disease Control and Prevention has performed a comprehensive analysis of the impact on society from antibiotic-resistant [bacteria](#), said Dr. Steve Solomon, director of the agency's Office of Antimicrobial Resistance.

"This is scary stuff, and we want people to know about it," he said.

The report outlines how antibiotic resistance occurs in patients and

spreads through the community. It also lists [medical procedures](#) that have become more dangerous because of these bacteria. Those procedures include dialysis, chemotherapy, complex surgery and [organ transplants](#).

Antibiotic overuse is the single most important factor leading to antibiotic resistance, according to the report. Antibiotics are among the most commonly prescribed drugs, but as many as half of those prescriptions are either not needed or not the best course of treatment for the patient, the report said.

"Patients need to understand that antibiotics are not the solution for every illness," Solomon said. "It's important that people not take antibiotics when they aren't necessary. It contributes to resistance, and it also has consequences to the patient in the form of side effects."

The CDC also faulted the [use of antibiotics](#) in food animals to prevent, control and treat disease, and to promote their growth. "The use of antibiotics for promoting growth is not necessary, and the practice should be phased out," the report stated.

The centerpiece of the CDC report is a threat-level assessment for 18 bacteria- and antibiotic-related illnesses, broken down into three categories: urgent, serious and concerning.

Three antibiotic-related illnesses are ranked as urgent threats demanding immediate attention:

- **Carbapenem-resistant Enterobacteriaceae**, or CRE, are a family of bacteria that have developed remarkable drug resistance in recent years. Half the people who get bloodstream infections from CRE die. About 9,300 hospital infections of CRE occur each year. "A lot of those bacteria are becoming

resistant to every antibiotic we have," Solomon said of CRE. "We are very concerned about significant spread over the next few years."

- ***Neisseria gonorrhoeae***—the bacteria that causes gonorrhea—are showing signs of resistance to the cephalosporin family of antibiotics. The CDC estimated that about one-third of the 820,000 annual gonorrhea infections involve strains that have become antibiotic-resistant. "The cephalosporins are really the last line of defense we have against gonorrhea," Solomon said. "It has shown its ability to become resistant to every antibiotic we throw at it. If we lost those—if this cephalosporin-resistant gonorrhea spreads—that disease is going to be untreatable."
- ***Clostridium difficile*** is bacteria that, although not antibiotic resistant, poses an urgent threat because it causes diarrhea linked to at least 250,000 hospitalizations and 14,000 American deaths each year. *C. difficile* infections occur because of antibiotic use that destroys the good bacteria in people's bodies that protect against illness. "Because there has not been as much success in addressing the problem of [antibiotic overuse](#), we are flagging that as an urgent problem because it has to be brought under control," Solomon said.

Twelve infections from antibiotic-resistant bacteria are listed as serious, and three as concerning. For each bacteria threat, the CDC offers guidance for what healthcare industry officials, medical professionals and the general public can do to limit its spread.

Infections by antibiotic-resistant bacteria add as much as \$20 billion in excess direct health-care costs, with additional costs for lost productivity as high as \$35 billion a year, according to the report.

In its report, the CDC outlined a four-pronged strategy for combating antibiotic-resistant bacteria:

- Preventing infections and preventing the spread of resistance.
- Tracking resistant bacteria.
- Improving the use of existing antibiotics.
- Promoting the development of new antibiotics and new diagnostic tests for resistant bacteria.

"As different as these problems are, the same strategies to address them are shared in common," Solomon said. "By helping people understand that those four core strategies are shared among the ways we address all of these [antibiotic-resistant bacteria](#), we put it all in context and provide a glimpse of the big picture."

Dr. Georges Benjamin, executive director of the American Public Health Association, said he appreciates the report's frank, down-to-earth manner.

"[The report] gives us a handle. Something we can use to talk with the public," he said. "Obviously, there is an enormous risk to the health of the public by [antibiotic resistance](#), and it's going to take a multiple-sector response to resolving it."

More information: For more information on antibiotic-resistant bacteria, visit the [U.S. Centers for Disease Control and Prevention](#).

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Citation: CDC sounds alarm on antibiotic-resistant bacteria (2013, September 16) retrieved 26 April 2024 from <https://medicalxpress.com/news/2013-09-cdc-alarm-antibiotic-resistant-bacteria.html>

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