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Drug-resistant 'superbugs' deemed urgent threat in U.S.

Deadly pathogens killing more than 23,000 people each year, landmark study finds

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A new landmark report finds that more than 2 million Americans are getting "superbug" infections every year, with 23,000 dying as a result — conservative estimates that likely represent only the "bare minimum" of the problem, according to the U.S. Centers for Disease Control and Prevention.

"Without urgent action now, more patients will be thrust back to a time before we had effective drugs," said CDC director Dr. Thomas Frieden in a telephone press conference Monday.

"If we're not careful, we will soon be in a post-antibiotic era — and in fact, for some patients and some microbes, we are already there," he said.

Superbugs are pathogens that are resistant to drugs and have therefore become difficult, or even impossible, to treat.

While antimicrobial resistance is a natural phenomenon, it has been dramatically accelerated by the misuse and overuse of antibiotics, both in people and livestock.

In recent years, health officials around the world have used increasingly alarming language to describe the superbug problem, calling it a "catastrophic threat" that could spell the "end to modern medicine as we know it."

In their new report, the CDC released its first-ever estimate of the burden of antimicrobial resistance in the United States. It also identified three particularly urgent threats: drug-resistant gonorrhea, which now infects at least 246,000 Americans annually; Clostridium difficile infections, which are largely caused by antibiotic use and kill14,000 Americans every year; and CRE, or carbapenem-resistant enterobacteriaceae, which Frieden calls a "nightmare" superbug capable of killing up to half of all infected patients. CRE are particularly scary because they can share their resistance genes with other bacteria.

Today, American hospitals in 38 states are treating patients with CRE infections,

up from just one state a decade ago, according to Frieden; in Canada, the Public Health Agency of Canada also recorded 65 CRE cases in 54 hospitals in 2011.
The CDC report is "incredibly important" but its findings are not surprising, said Dr. Victoria Fraser, a antimicrobial resistance committee member with the Infectious Diseases Society of America. "Unfortunately, in the United States and worldwide — I think the same holds true in Canada — there has been a dramatic increase in the amount and nature of antimicrobial resistant organisms."
Unless the world takes urgent action, the "medicine cabinet" for patients with life-threatening infectious could soon be empty, Frieden said.

To make matters worse, the drug "pipeline" for antibiotics has largely dried up and "new drugs could be nearly a decade away," Frieden said.
Antimicrobial resistance is also an expensive problem and some estimates have shown that antimicrobial resistance costs $20 billion in excess health-care costs, with another $35 billion in lost productivity, according to the report.
In spite of the report's grim findings, it is not too late to get a handle on the problem, Frieden said.

The CDC has identified a four-part solution: better prevention measures, better surveillance for tracking drug resistance, improved antibiotic stewardship and developing new drugs.