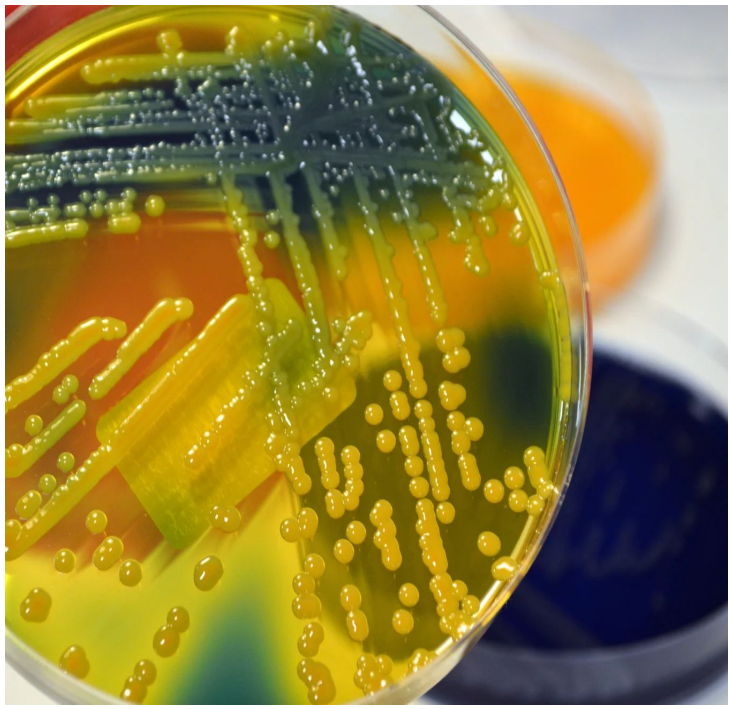
# IN THE NEWS

## PULSE EDITION

# "Nightmare Bacteria" Infections Climbing Sharply in the U.S.

*A new study reveals a dramatic rise in cases of drug-resistant bacteria*



*Source: Scientific American*

In 2018, the CDC reported 221 cases of rare, highly antibiotic resistant bacteria across 27 states. These bacteria are resistant to nearly all available antibiotics and can transfer their resistance genes to other bacteria, making them especially dangerous. The CDC's nationwide testing network found that 1 in 4 samples carried special genes, called beta lactamase genes, which spread resistance to other bacteria. This raises concerns about silent transmission, in which bacteria spread without causing obvious symptoms or before detection. In other words, people can carry and pass on the bacteria without realizing it.

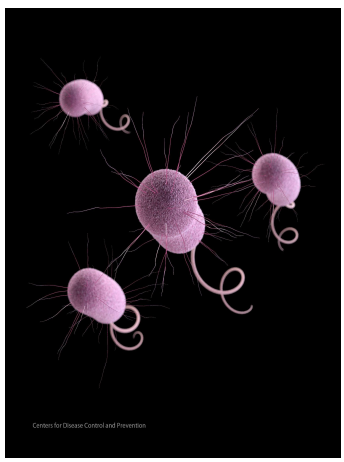
## What's Changing?

Infections caused by carbapenem resistant bacteria rose by nearly 70%, climbing from under 2 per 100,000 people in 2019 to over 3 per 100,000 in 2023. Carbapenem resistant bacteria are "superbugs" that no longer respond to a powerful group of antibiotics usually reserved as a last resort. There isn't just one kind of germ, but a group of bacteria that exhibit this resistance. A particularly dangerous subtype carrying the NDM gene increased even more steeply from approximately 0.25 to 1.35 per 100,000 people, an increase of about 460%. These NDM bacteria, which belong primarily to the *Enterobacterales* species, are resistant to nearly all common antibiotics. Currently, only two drugs remain effective, both of which must be administered intravenously and are costly.

*Source: University of Michigan*

## Why Does It Matter?

*From Hospitals to Communities: A Growing Threat*



*Source: Centers for Disease and Prevention*

Once mostly associated with medical cases overseas, NDM bacteria are now appearing more frequently in the U.S., signaling potential community spread. Even routine infections, such as urinary tract infections, may become harder to treat if they involve these resistant strains. Furthermore, the current numbers likely underestimate the true scope of the problem. CDC data come from just 29 states that report detailed resistance testing, leaving out major states like California, New York, Florida, and Texas meaning many cases could go undetected.

# Future Outlook

*Race for New Treatments and Technologies*

*Source: Newsweek*

Because these germs have become resistant to nearly all known antibiotics, new drugs are urgently needed. The CDC highlights ongoing research into next generation antibiotics that target bacterial processes, bacteriophage therapy (viruses that infect and kill bacteria), and CRISPR based antimicrobials that could edit out resistance genes. Many labs are currently testing precision antibiotics that disrupt bacterial gene-sharing mechanisms, directly tackling the problem of transferable antibiotic resistance. In the future, hospital level prevention technologies will be critical. Hygiene and infection control measures can help prevent serious outbreaks. Examples include enhanced disinfection systems such as UV-C light sterilizers, antimicrobial surfaces for hospital rooms and equipment, and AI driven infection tracking systems that monitor and predict outbreaks.

---

**Writer:** Melody Horoufi
**Publisher:** PULSE Program

**Resources:**

Stobbe, Mike. "'Nightmare Bacteria' Cases Are Increasing in the U.S." *NBC News*, 23 Sept. 2025, www.nbcnews.com/health/health-news/nightmare-bacteria-cases-are-increasing-us-rcna233398.

Szabo, Liz, and KFF Health News. "'Nightmare Bacteria' Widespread in U.S. Hospitals." *Scientific American*, 3 Apr. 2018, www.scientificamerican.com/article/nightmare-bacteria-widespread-in-u-s-hospitals/.

Disclosure statement: This write up has been edited with the assistance of AI.