

Health officials call for renewed progress to combat antibiotic resistance

Minnesotans can help keep antibiotics effective by using them properly – and only when necessary

Mirroring a trend seen nationally, Minnesota's progress toward reducing antibiotic resistance lost ground in recent years, but the Minnesota Department of Health (MDH) is aiming to work with health care partners to renew and accelerate the push to preserve antibiotic effectiveness.

Following years of reductions in antibiotic-resistant infections, hospital-related resistant infections and deaths increased at least 15% nationally during 2020, the first year of the COVID-19 pandemic, according to a new report from the Centers for Disease Control and Prevention (CDC), "[COVID-19: U.S. Impact on Antimicrobial Resistance](#)." Progress on improving the ways in which antibiotics are used has also taken a step back during the pandemic, according to the report.

"The last few years presented many challenges," said Minnesota Commissioner of Health Jan Malcolm. "We know that our health care system has been strained and this has contributed to the growth of antibiotic resistance. However, preventing antibiotic resistance is extremely important. We must regain and accelerate the progress we had been making before the pandemic hit. People's lives may depend on it."

Antibiotic resistance happens when bacteria – germs that cause many serious infections in people – become able to resist the medications designed to kill them or slow their growth. Bacteria that become resistant to antibiotic medications can lead to much more severe infections and even deaths that would not otherwise occur.

The more that antibiotics are used inappropriately or when they are not needed, the more likely bacteria are to develop resistance. The problem of antibiotic resistance is one with both local and global impact, as even common infections are becoming harder to treat, health officials say.

In Minnesota, one group of extremely drug-resistant germs (carbapenemase-producing Gram-negative bacteria) was detected in an average of 30 patients each year from 2009–2018. During 2019–2021, detections increased by 90% to an average of 57 patients per year. Of great concern, through October 2022, these very hard-to-treat germs have already been detected in 68 patients, making this a record year for this dangerous threat.

In the decade prior to the pandemic, Minnesota, like the U.S., made progress in reducing rates of infections caused by antibiotic-resistant germs. This was achieved by increased infection prevention and control efforts in health care facilities to prevent the spread of resistant germs, and improvements in the way antibiotics are used. Much of the progress in improvement of antibiotic use has been driven by education of health care providers, patients, and families.

In response to the recent setbacks, MDH will refocus educational efforts and expand its work with partners to slow the development and spread of antibiotic resistance. It will use its surveillance data to guide and measure progress on prevention-focused initiatives in hospitals and nursing homes to detect and prevent resistant bacteria. Also, recommitment to progress will be the theme for the state's antibiotic stewardship conference in Spring 2023.

“Antibiotic stewardship and infection prevention leaders are an integral part of care teams on the front lines as we combat resistant infections and the spread of resistant germs,” said Rahul Koranne, M.D., president and chief executive officer of Minnesota Hospital Association. “As was highlighted throughout the pandemic, we can make a bigger impact on critical problems like antibiotic resistance by working together, across industries and between public and private sectors.”