

## **Poll of Tennessee Parents Suggests Some Misconceptions About Antibiotics, Related Care**

The majority of Tennessee parents take their children to their primary care provider or pediatrician when they are sick, but the latest analysis of polling by the [Vanderbilt Center for Child Health Policy](#) of parents across the state suggests there are misconceptions about antibiotics, and their use in treating viral infections.

More than 1,000 Tennessee parents across the state were polled in fall 2023 about their perceptions and use of antibiotics to treat viral illnesses in their children. Only 44% of parents agreed that antibiotics were not needed when their child was sick with a viral infection.

Antibiotics are effective treatments for bacterial infections, like strep throat for example, but are ineffective at treating viral infections like the common cold, influenza, respiratory syncytial virus or COVID-19.

About 20% said they would seek a second opinion or ask for an antibiotic at an urgent care visit if their primary care provider said antibiotics were not needed for their child's viral infection.

"There are tons of germs in the world, but most can be separated into a just few groups. One of those groups is bacteria and another is viruses. Antibiotics, like amoxicillin, are only able to help if the germ that's causing the illness is a bacteria, like in strep throat. However, they don't provide any benefit when treating viruses, like the common cold. It's like using a mousetrap to kill a fly — the fly isn't affected at all by the trap. This is why sometimes kids need antibiotics when they're sick and sometimes they don't," said Brittany Lehrer, MD, a third-year pediatric infectious disease fellow at Monroe Carell Jr. Children's Hospital at Vanderbilt.

One reason care providers are careful about prescribing antibiotics are potential side effects, notably the possibility that new bacteria develop that are more resistant to common and effective antibiotics, like amoxicillin.

"Antibiotics can cause side effects and have downstream impacts on development of antibiotic-resistant bacteria, so they may not work in the future if needed. It's best to avoid antibiotics unless they're really needed," said Sophie Katz, MD, assistant professor of Pediatric Infectious Diseases at Monroe Carell.

Perceptions about antibiotics differed among the state's three grand divisions as well, researchers noted. Less than 40% of parents in West Tennessee agreed that antibiotics were not needed for viral infections, and less than half in Middle and East Tennessee agreed.

While most parents said they visit a provider to make sure their child is OK, more than 14% said they visit a provider so their child can return to school faster by either antibiotic treatment or a school note, which researchers said could indicate challenges

many parents face balancing work with child care and possible school absences and learning loss.

“For viral infections like the common cold or pink eye, requiring antibiotic treatment before a child can return to school can drive unnecessary and inappropriate antibiotic use. Schools and child care centers can play an important role in advocating for appropriate antibiotic use,” Katz said.

The annual [Vanderbilt Child Health Poll](#) is conducted each fall and covers a range of health and policy issues impacting Tennessee parents and children. The poll is funded in part by a grant from the Boedecker Foundation.