

# DRUG-RESISTANT **CAMPYLOBACTER**

THREAT LEVEL **SERIOUS**



**448,400**  
Estimated  
infections  
each year



**70**  
Estimated  
deaths  
each year

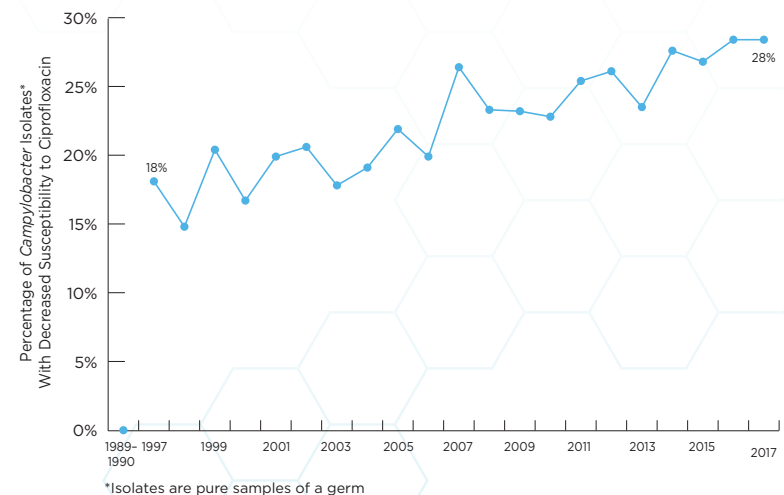
*Campylobacter* are bacteria that usually cause diarrhea (often bloody), fever, abdominal cramps, and sometimes complications such as irritable bowel syndrome, temporary paralysis, and arthritis.

## WHAT YOU NEED TO KNOW

- *Campylobacter* causes an estimated 1.5 million infections and \$270 million in direct medical costs every year. Of those infections, 29% have decreased susceptibility to fluoroquinolones (e.g., ciprofloxacin) or macrolides (e.g., azithromycin), the antibiotics used to treat severe *Campylobacter* infections.
- *Campylobacter* spreads to people through raw or undercooked chicken, unpasteurized milk, contaminated food and water, and through direct contact with animals.
- *Campylobacter* infections with decreased susceptibility are more common in low- and middle-income countries, putting travelers at risk for infections that may be harder to treat.

## RESISTANCE OVER TIME

The percentage of *Campylobacter* with decreased susceptibility to ciprofloxacin has almost doubled in 20 years, limiting treatment options for patients.



Annual national testing began in 1997. Data for 1989-1990 from a sentinel county survey.



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

## PUPPIES MADE PEOPLE SICK

How could an adorable puppy cause her owner to have a month-long hospital stay, including multiple stays in the intensive care unit? That is what happened to Mike, a 67-year-old retired professor with an existing chronic disease. Within a week of bringing home puppy Mabel from a pet store, Mike experienced diarrhea, fatigue, and lower back pain. The pain became excruciating and he was hospitalized with failing kidneys.



Mike was one of 113 people across 17 states identified as part of an outbreak of multidrug-resistant *Campylobacter* infections linked to pet store puppies. Only one type of antibiotic was able to treat his resistant infection. Due to complications from this infection and his chronic disease, he needed surgery to remove a dead section of stomach. Three months later, Mike finally felt well enough to return to post-retirement work at a bookstore. He still enjoys his pup, but is careful to wash his hands when cleaning up after her.

## RESISTANCE SNAPSHOT

As decreased susceptibility in *Campylobacter* increases, the antibiotic options for those who need treatment could disappear.



PERCENTAGE OF *CAMPYLOBACTER*\*



ESTIMATED NUMBER OF INFECTIONS PER YEAR

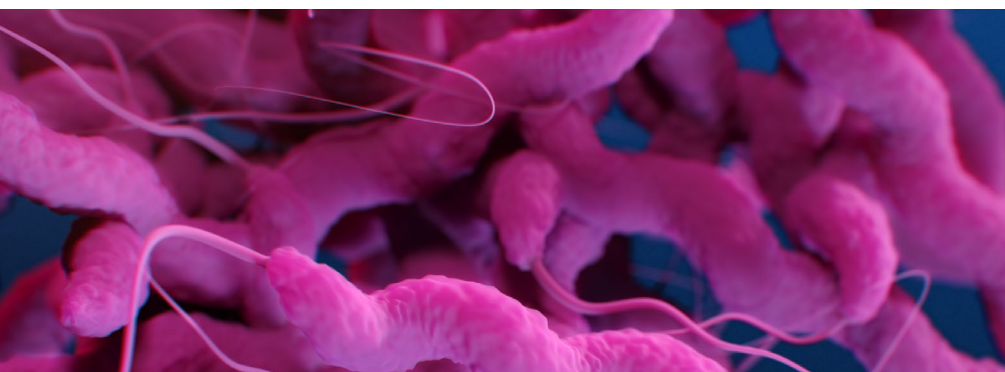


ESTIMATED INFECTIONS PER 100,000 U.S. POPULATION

	PERCENTAGE OF <i>CAMPYLOBACTER</i> *	ESTIMATED NUMBER OF INFECTIONS PER YEAR	ESTIMATED INFECTIONS PER 100,000 U.S. POPULATION
DECREASED SUSCEPTIBILITY TO CIPROFLOXACIN	28%	429,600	130
DECREASED SUSCEPTIBILITY TO AZITHROMYCIN	4%	55,600	20
DECREASED SUSCEPTIBILITY TO CIPROFLOXACIN <b>OR</b> AZITHROMYCIN	29%	448,400	140
DECREASED SUSCEPTIBILITY TO CIPROFLOXACIN <b>AND</b> AZITHROMYCIN	2%	36,800	10

Antibiotic susceptibility helps describe how sensitive germs are to particular antibiotics. An antibiotic can stop the growth of or kill a susceptible germ.

\*Average (2015–2017), includes *Campylobacter jejuni* and *Campylobacter coli*.



## ONLINE RESOURCES

### About *Campylobacter*

[www.cdc.gov/campylobacter](http://www.cdc.gov/campylobacter)

### NARMSNow: Human Data, *Campylobacter* Resistance

[wwwn.cdc.gov/NARMSNow](http://wwwn.cdc.gov/NARMSNow)