



## Antibiotic Use & Concerns

Antibiotics are one of the most commonly prescribed types of medications. As a treatment for bacterial infections, antibiotics can save lives. However, inappropriate use can reduce their effectiveness (antibiotic resistance) and lead to other harms. In May 2019, the University of Michigan National Poll on Healthy Aging asked a national sample of U.S. adults age 50–80 about their experiences with and opinions about antibiotics.

### Use of Antibiotics and Leftover Medication

Nearly half of all poll respondents (48%) reported filling a prescription for antibiotics in the last two years. The most common reasons were for respiratory infections (50%), dental infections (18%), urinary tract infections (17%), and skin infections (11%).

Among those who filled a prescription for an antibiotic in the last two years, one in eight (13%) had leftover medication. Respondents' top reasons for having leftover antibiotics were that they were given more doses than needed (34%), stopped taking a prescription because they felt better (32%), stopped taking it due to side effects (18%), forgot to take it or skipped some doses (14%), and stopped taking it because it did not help (7%).

For older adults who had leftover antibiotics, nearly two in three (65%) reported keeping them. One in five (20%) threw them away or flushed them down the toilet, and 15% did not remember or did not specify what they did with the leftover antibiotics.

Among those who kept leftover antibiotics, a majority (60%) said they did so in case they got another infection. A smaller proportion (6%) kept leftover antibiotics in case a family member got an infection, 4% were not sure how to dispose of the leftovers, and 2% forgot to dispose of them.



## Opinions Regarding Antibiotics

AMONG ADULTS AGE 50-80



If they have a cold or flu...

**34%** believe antibiotics help them get better sooner

If they have a cold that lasts long enough to visit a doctor...

**41%** expect an antibiotic



Doctors don't prescribe antibiotics when they should...

**23%** agree

Doctors over prescribe antibiotics...

**56%** agree



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More than one in four (28%) said there was no specific reason they kept the leftovers.

## Taking Antibiotics without a Prescription

Among all respondents, nearly one in five (19%) reported ever taking antibiotics without talking to a health care professional (17% took their own leftover medication and 3% took someone else's medication). Respondents age 50–64 were more likely than older respondents (age 65–80) to have taken leftover antibiotics without talking to a health care professional (21% vs. 15%). Among those who had leftover antibiotics in the last two years, more than half (51%) said they have taken antibiotics without talking to a health care professional. For those who did not have leftover medication, 23% reported taking antibiotics without talking to a health care professional. In contrast, of those who did not have a prescription in the last two years, only one in eight (12%) indicated they had taken antibiotics without talking to a health care professional.

## Perceptions about Antibiotics

The majority of older adults (92%) agreed (either strongly or somewhat) that they are cautious about the use of antibiotics, and 89% agreed that overuse can lead to antibiotics not working the next time they are needed. Three in five (61%) were concerned about side effects from antibiotics and more than half (56%) believed that doctors overprescribe antibiotics.

However, two in five older adults (41%) said that if they have a cold that lasts long enough for them to visit a doctor, they expect a prescription for an antibiotic. When they get a cold or flu, about one in three (34%) believe antibiotics help them get better sooner. Nearly one in four older adults (23%) believe doctors do not prescribe antibiotics when they should.

## Implications

Half of poll respondents reported filling a prescription for antibiotics. While it is encouraging that older adults say they are cautious about antibiotic use and are aware that antibiotic resistance is a risk of overuse, many older adults still expect an antibiotic prescription if they are sick long enough to see a doctor.

For years, health care professionals who prescribe antibiotics have been encouraged to decrease inappropriate prescribing, especially for viral illnesses like colds and flu, which do not respond to antibiotics. Yet some patients may not be aware of this and still ask for antibiotics even when they are unlikely to be helpful.

While patients should be counseled to take all the antibiotics that are prescribed in order to appropriately treat their infection and minimize resistance, some stop taking them. Most older adults who kept leftover antibiotics did so in case they got another infection. Across the population, this represents several million doses of antibiotics. Use of leftover antibiotics without medical supervision could result in serious drug interactions and other side effects, and could also contribute to increased antibiotic resistance.

To address these concerns, prescribers should give careful consideration to the number of pills given, so that excess medication does not contribute to misuse. Patients should be counseled about the risks of taking antibiotics without consulting a health care professional. Patients and family members should be encouraged to bring leftover antibiotics to community “take back” events or follow other guidelines for disposal. These steps can help ensure that antibiotic use is appropriate, safe, and effective.

## Data Source and Methods

This National Poll on Healthy Aging report presents findings from a nationally representative household survey conducted exclusively by Ipsos Public Affairs, LLC (“Ipsos”), for the University of Michigan’s Institute for Healthcare Policy and Innovation. National Poll on Healthy Aging surveys are conducted using the Ipsos KnowledgePanel®, the largest national, probability-based panel in the U.S. Surveys are fielded two to three times a year with a sample of approximately 2,000 KnowledgePanel® members age 50–80.

This survey was administered online in May 2019 to a randomly selected, stratified group of older adults age 50–80 (n=2,256). Respondents were selected from the Ipsos web-enabled KnowledgePanel®, which closely resembles the U.S. population. The sample was subsequently weighted to reflect population figures from the U.S. Census Bureau.

The completion rate was 76% among panel members contacted to participate. The margin of error is ±1 to 2 percentage points for questions asked of the full sample, and higher among subgroups.

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