Sales of antibiotics for food-producing animals dropped by nearly half in Europe over the past decade

By Ed Silverman Nov. 18, 2022
Amid ongoing concerns over the use of medically important antibiotics given to food-producing livestock and farmed fish, sales of veterinary medicines across Europe dropped by nearly half between 2011 and 2021, which regulators reported is the biggest drop ever recorded and a sign
that campaigns to reduce use are working.

At issue is the extent to which antibiotics are given to food-producing livestock to prevent and treat disease — a practice that has contributed to an alarming rise in antibiotic-resistant bacteria in humans. The problem has persisted, even after the European Union in 2006 banned the use of antibiotics for promoting growth, since bulking up the animals makes them better suited for increased production.

A key challenge is the ability of farmers around the world to produce sufficient livestock — typically, cattle, pigs, poultry, sheep, goats, rabbits, farmed fish and, in some countries, horses — in order to meet consumer demand, but also to satisfy public health concerns that increased antibiotic use will create antimicrobial resistance.

Overall, the aggregated sales of antibiotic used by veterinarians in 2021 indicated a 4.9% decrease compared to 2020, according to the latest data from the European Medicines Agency, which assessed data provided by 31 countries from the European Economic Area, as well as the U.K. and Switzerland.

Notably, critically important classes of antibiotics for human medicine were used less in animals over the last decade in 25 countries. Sales of third- and fourth-generation cephalosporins fell by 38%, polymyxins by 80%, fluoroquinolones fell by 14%, and other quinolones dropped by 83%. Moreover, these accounted for only 5.5% of total antibiotic sales in 2021.
While sales of oral solutions increased over the years, sales of all other products — oral powders, premixes, injectables, intrauterine, intramammary, and boluses — declined. When grouped by predominant use, sales of product forms mainly used for group treatment declined by 49.5%, while those used for individual treatment declined 11.5% between 2011 and 2021.

However, the report also indicated that use appears to vary across the continent. Although the vast majority of countries saw a drop in sales of veterinary antibiotics of more than 5%, three countries — Austria, Belgium, and Bulgaria — recorded substantial increases in sales during the same period, ranging from 35% to 87%.

The upshot is antibiotic use could still decline substantially in some countries, especially those with high consumption. But the EMA offered an upbeat assessment.

“The positive results reflect the efforts of veterinarians, farmers and pharmaceutical industry to reduce the use of antibiotics to prevent antimicrobial resistance. It also shows that European Union (EU) policy initiatives and national campaigns promoting prudent use of antibiotics in animals are having a positive impact,” said Ivo Claassen, who heads the EMA Veterinary Medicines Division, in a statement.

The data arrives as antibiotic resistance is generating increased anxiety. Resistance occurs when microbes evolve in ways that make them impervious to existing drugs, which makes infections harder to treat and often results in deaths that would have been preventable in the
past.

In 2019, an estimated 1.27 million deaths worldwide were attributed to antimicrobial resistance, according to a study published earlier this year in The Lancet, which was the first such comprehensive examination of the issue on a global basis. Only ischemic heart disease and stroke accounted for more deaths that year.

An estimated 2.8 million antibiotic-resistant infections occur each year in the U.S., killing at least 35,000 people annually, according to data from the Centers for Disease Control and Prevention. And during the first year of the Covid-19 pandemic, the CDC found that deaths and infections from serious pathogens jumped at least 15% due to resistance to medicines for combating superbugs.

The EMA data was released more than three years after the European Parliament adopted a law restricting use of antibiotics in food-producing livestock. Under those rules, routine use of antibiotics is prohibited for preventing disease, although the medicines will be permitted for use in healthy animals in certain circumstances, such as following surgery, or when only some animals in an entire group happen to be sick.

Even so, the issue remains problematic elsewhere.

In 2017, the U.S. Food and Drug Administration began implementing a voluntary program encouraging drugmakers to remove language from product labeling that indicates antibiotics can be used for weight gain in livestock. The effort came in response to concerns that humans are...
becoming increasingly resistant to antibiotics that are given to food-producing livestock.

However, antibiotics can still be used for preventing and treating disease in animals, which consumer advocacy groups have long argued amounts to a loophole. That’s because many antibiotics that are approved for weight gain are also approved for preventing and treating disease.

An [FDA report](https://www.statnews.com.proxy1.library.jhu.edu/pharmalot/2022/11/18/antibiotics-antimicrobials-europe-ema-cattle-pigs-poultry/) issued last December found that sales and distribution of medically important antibiotics given to food-producing livestock in 2020 fell 27% since 2010 and dropped 38% percent since 2015, which was the peak year of sales. And tetracyclines, which represented the largest volume of domestic sales, decreased by 4% in 2020 from the previous year. The FDA recently released a more comprehensive overview of the issue.

The European findings were met with a mixed response from Steven Roach, who heads the safe and healthy food program at the Food Animal Concerns Trust, a U.S.-based nonprofit that seeks to limit antibiotic use in food-producing livestock. He called the 4.9% drop in overall sales “modest,” but also believes the trend is “moving in the right direction.”

“Federal agencies in the U.S. like to discuss the serious threat of antibiotic resistance but refuse to set goals to reduce it, such as antibiotic use reduction targets or targets for reductions in resistance in bacteria on food, instead these agencies choose to promote ‘responsible use’ or ‘antimicrobial stewardship’ without tying these to measurable outcomes,” he wrote us.
“This is like taking steps to improve water quality but refusing to actually measure what is in the water or to set targets for levels of contaminants in water. Europe, in general, and the European Medicines Agency in this report have taken the opposite approach by seeking a reduction in overall antibiotic use and in reductions in specific classes of antibiotics.”

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