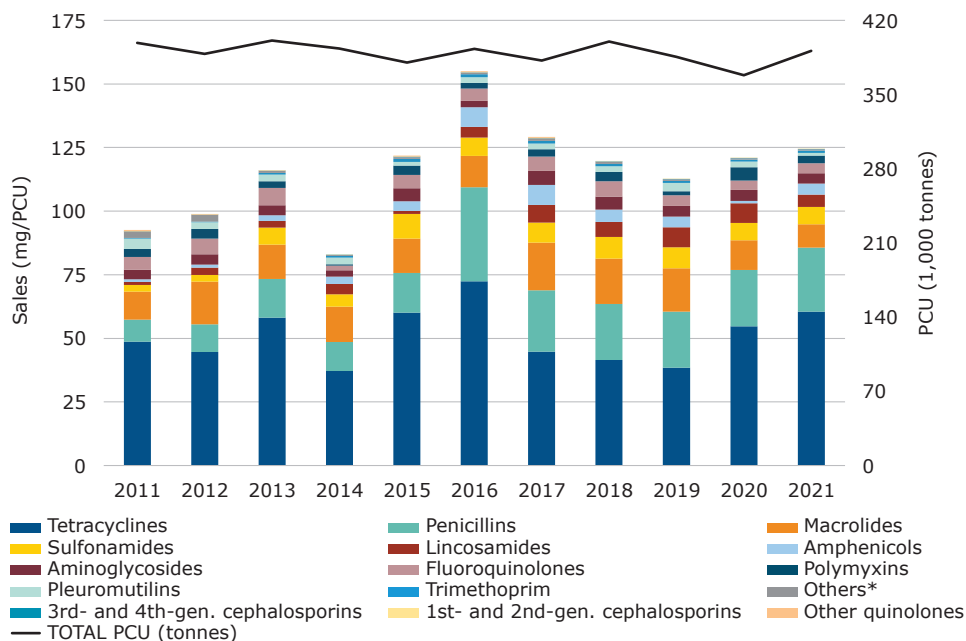




BULGARIA

Sales trends (mg/PCU) of antibiotic VMPs for food-producing animals

Sales trends by antibacterial class (mg/PCU) from 2011 to 2021^{1,2,3}



¹ Sales data sorted from highest to lowest in 2021.

² No sales of other quinolones were reported in 2014, 2018, 2019, 2020 and 2021.

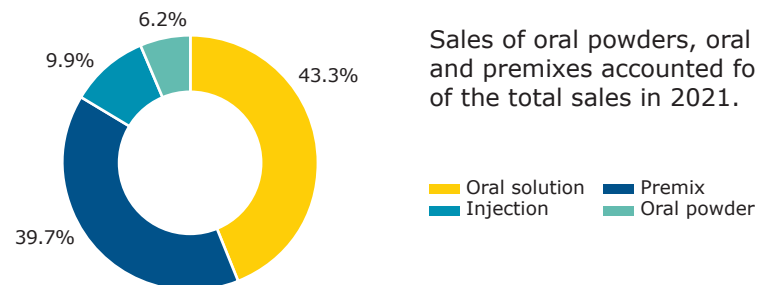
³ For Bulgaria, 2011, 2012, 2014 and 2015 are underestimates, as several wholesalers failed to report data.

* The class 'Others' includes sales of imidazole derivatives (metronidazole) and other antibacterials (bacitracin, nitroxoline, rifaximin and spectinomycin). Of note is that some of the sales could be for non-food-producing animals.

Since 2011:

- ⬆️ 34.5% overall annual sales (from 92.6 mg/PCU to 124.5 mg/PCU in 2021)
- ⬆️ 282.2% 3rd- and 4th-generation cephalosporin sales (from 0.05 mg/PCU to 0.18 mg/PCU in 2021)
- ⬇️ 21.2% fluoroquinolone sales (from 5.0 mg/PCU to 3.9 mg/PCU in 2021)
- ⬇️ 100% other quinolone sales (from 0.43 mg/PCU to 0 mg/PCU in 2018-2021)
- ⬇️ 3.3% polymyxin sales (from 3.2 mg/PCU to 3.1 mg/PCU in 2021)
- ⬇️ The PCU decreased by 1.8% between 2011 and 2021

Proportion of sales (mg/PCU) by product form in 2021^{1,2}



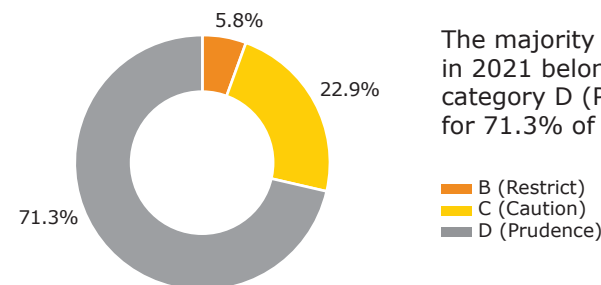
Sales of oral powders, oral solutions and premixes accounted for 89.3% of the total sales in 2021.

Legend: Oral solution (yellow), Injection (teal), Premix (dark blue), Oral powder (light green)

¹ No sales of bolus and oral paste products in 2021.

² Sales of other forms (intramammary and intrauterine) are not included in this figure and represent 0.8% of total sales.

Proportion of sales (mg/PCU) by AMEG categories in 2021



The majority of antibiotic VMP sales in 2021 belonged to the AMEG category D (Prudence), accounting for 71.3% of the total sales.

Legend: B (Restrict) (orange), C (Caution) (yellow), D (Prudence) (grey)

2021 sales data

In 2021, overall sales increased by 3.0% in comparison to 2020 (from 120.9 mg/PCU to 124.5 mg/PCU). The three highest selling antibiotic classes were tetracyclines, penicillins and macrolides, which accounted for 48.6%, 20.2% and 7.4% of total sales, respectively.

Country information

In 2017, Bulgaria introduced a national data collection system for sales of antimicrobial VMPS, supported by the introduction of national legislation. The new system requires veterinarians to report any prescription and administration of medicines to animals and also includes data provided by wholesalers and retailers. Until now, it has only been possible to obtain data from some MAHs, so under-reporting of sales in years up to and including 2015 cannot be excluded. The new system will also allow for the collection of data at sites where antimicrobials are used (reporting by registered veterinarians and animal owners).

The Bulgarian Food Safety Agency (BFSA) has established an Expert Council on Antimicrobial Resistance, which includes all directorates of the agency involved in activity related to the use of VMPS. Its main activities are:

- to develop and implement policy and legislation with regard to antimicrobial resistance;
- to develop objective and measurable criteria for assessing the results of the implementation of the guidance for prudent use of antimicrobials in veterinary activity;
- to enhance collaboration of BFSA directorates in the development of good practices in relation to antimicrobial resistance, for example in the prevention and control of infections to improve animal health and welfare.