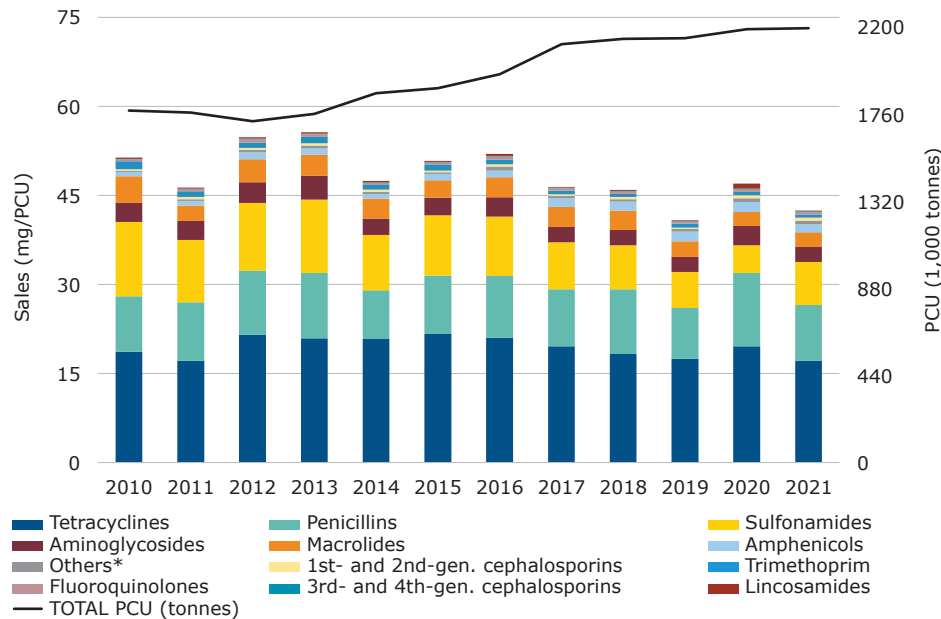


Sales trends (mg/PCU) of antibiotic VMPs for food-producing animals

Sales trends by antibiotic class (mg/PCU) from 2010 to 2021^{1,2,3}



¹ Sales data sorted from highest to lowest in 2021.

² For reasons of commercial confidentiality, polymyxins and pleuromutillins are aggregated with 'Others'.

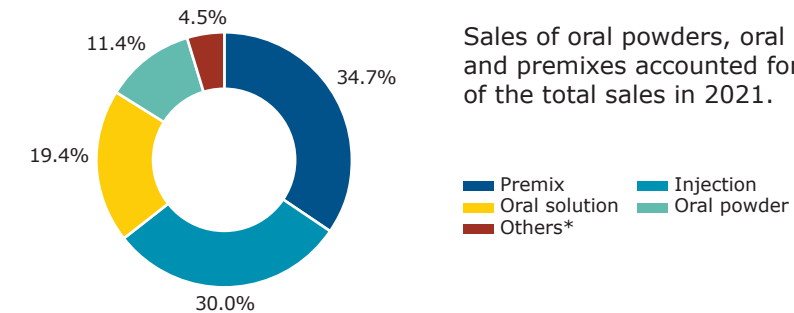
³ No sales of other quinolones in any of the years.

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

Since 2011:

- ⬇️ 8.4% overall annual sales (from 46.4 mg/PCU to 42.4 mg/PCU in 2021)
- ⬆️ 125.4% 3rd- and 4th-generation cephalosporin sales (from 0.07 mg/PCU to 0.16 mg/PCU in 2021)
- ⬇️ 3.9% quinolone sales (from 0.40 mg/PCU to 0.38 mg/PCU in 2021)
- 100% of all quinolone sales for this period were of fluoroquinolones
- No polymyxin sales were recorded in 2021 for the first time
- ⬆️ The PCU increased by 24.1% between 2011 and 2021

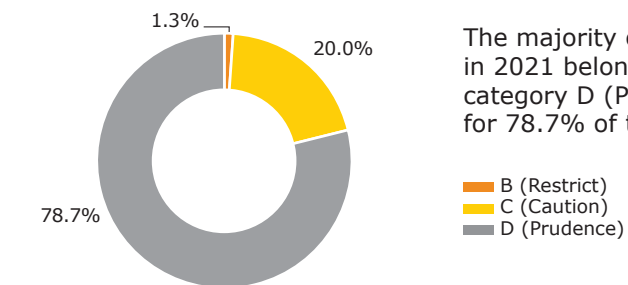
Proportion of sales (mg/PCU) by product form in 2021



Sales of oral powders, oral solutions and premixes accounted for 65.5% of the total sales in 2021.

* Other forms include intramammary, intrauterine, bolus and oral paste products.

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 78.7% of the total sales.

2021 sales data

In 2021, overall sales decreased by 9.7% in comparison to 2020 (from 47.0 mg/PCU to 42.4 mg/PCU). The three highest selling antibiotic classes were tetracyclines, penicillins and sulfonamides, which accounted for 40.5%, 22.0% and 17.1% of total sales, respectively.



Country information

Ireland's national action plan on antimicrobial resistance for 2017–2020 (iNAP1) has been followed by a second one to cover the period 2021–2025 (iNAP2). This second plan further strengthens multidisciplinary collaborative efforts across the health, agricultural and environmental sectors. Activities such as education and awareness training on antimicrobial resistance and disease prevention amongst veterinarians, farmers and other stakeholders are being carried out on an ongoing basis. These activities are complemented by enhanced surveillance of antibiotic resistance and antibiotic use, such as through surveillance programmes monitoring the spread of antibiotic resistance in animal populations. Furthermore, a National Antimicrobial Usage Database for pigs has been developed while a new computerised National Veterinary Prescription System (NVPS) will be rolled out shortly. Improved animal health and an increased focus on preventative measures are expected to reduce the need for antimicrobials in the coming years.

Following the increase in sales of antimicrobials reported in 2020, a reduction of 9.7% in overall sales from 47.0 mg/PCU to 42.4 mg/PCU was observed in 2021. This continues a general decreasing trend in antibiotic sales.

In relation to classes of antibiotics included in Category B of the AMEG categorisation, when compared to 2011, sales of 3rd- and 4th-generation cephalosporins have increased by 125%; however, the level of sales have remained relatively unchanged between 2018 and 2021 at approximately 0.16 mg/PCU. In the case of fluoroquinolones, sales have remained relatively stable over the period 2010–2021, with a decrease of 3.9% observed since 2011, but an increase of 5.5% on 2020 to 0.38 mg/PCU.

Sales of colistin prior to 2021 have been low (<0.2 mg/PCU). In 2021, the Animal Health industry voluntarily ceased using colistin to treat disease in the animal sector. This coincided with zero sales of colistin in 2021.

Information on Ireland's national action plans and other relevant information relating to antimicrobial resistance can be found on the following website:

<https://www.gov.ie/en/collection/45f45-antimicrobial-resistance-amr/>

The national report on sales of veterinary antibiotics in Ireland during 2020 (Health Products Regulatory Authority, 2021) can be found at the link below:

<https://www.hpra.ie/docs/default-source/default-document-library/report-on-sales-of-veterinary-antibiotics-in-ireland-during-20203886102697826eee9b55ff00008c97d0.pdf?sfvrsn=6>