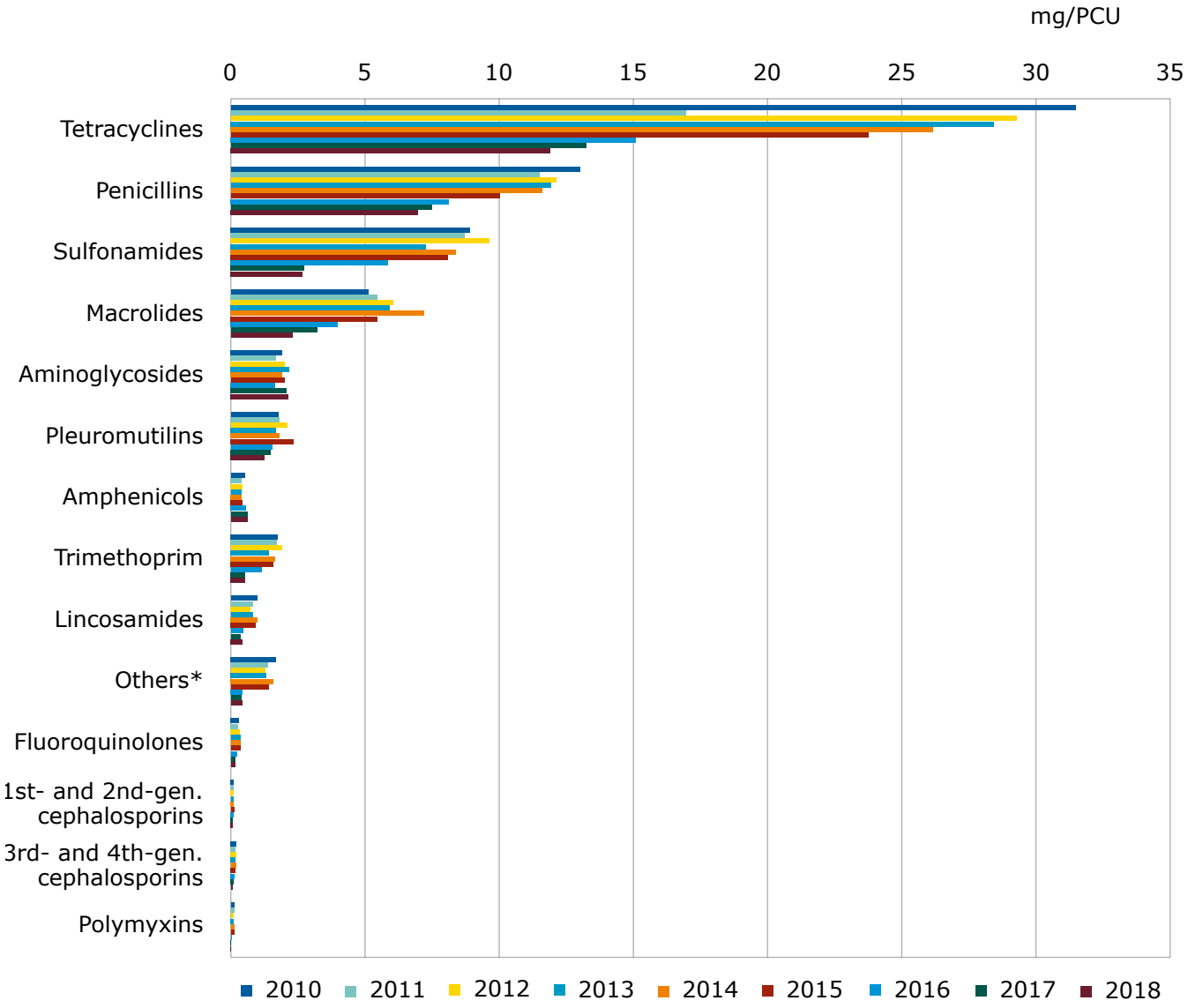
# UNITED KINGDOM

## CHANGES IN SALES (MG/PCU) ACROSS YEARS




No sales of other quinolones in any of the years.

* Other antibacterials (classified as such in the ATCvet system).

Overall sales of antibiotics for use in food-producing species in 2018 (29.5 mg/PCU) declined by 42 % when compared to 2011 (51.1 mg/PCU) and by 9 % when compared to 2017 (32.5 mg/PCU), being the lowest figure reported over this eight-year period. It is thought that sales in 2011 are artificially low and sales in 2010 artificially high, due to altered product-purchasing behaviour in anticipation of a change in marketing authorisation holder(s) for certain tetracycline-containing products between 2010 and 2011. However, it should be noted that over the period 2012 to 2016, a 41 % decline in sales was observed.

In 2018, the most-sold classes were tetracyclines (40%), penicillins (24%) and sulfonamides (9%), while sales of polymyxins, 3rd- and 4th-generation cephalosporins, 1st- and 2nd-generation cephalosporins and fluoroquinolones were very low, accounting for 0.002%, 0.2%, 0.2% and 0.5%, respectively. Between 2012 and 2016 there was a decrease in most of the antimicrobial classes although this was particularly substantial for tetracyclines (48%). Despite this reduction, tetracyclines remain the most-sold class in 2018.

From 2011 (0.17 mg/PCU) to 2018 (0.06 mg/PCU), sales of 3rd- and 4th-generation cephalosporins decreased by 63% and from 2017 (0.11 mg/PCU) to 2018 by 40%. Sales were relatively stable during the period 2010 to 2016 but have dropped significantly from 2016 to 2018. The aggregated sales for 25 countries were 0.18 mg/PCU.

Sales of fluoroquinolones were also relatively stable between 2010 and 2015 and have been steadily dropping since 2016. From 2011 (0.28 mg/PCU) to 2018 (0.146 mg/PCU), sales of fluoroquinolones fell by 48% and from 2017 (0.153 mg/PCU) to 2018 by 5%. The aggregated sales for 25 countries were 2.42 mg/PCU. For other quinolones, no sales were reported in any of the years.

The same pattern is observed for sales of polymyxins, which were relatively stable during the period 2010 to 2015, having dropped sharply by 99% from 2015 (0.12 mg/PCU) to 2018 (0.0007 mg/PCU), although a slight increase was observed from 2017 (0.0006 mg/PCU) to 2018. The aggregated sales for 25 countries were 3.31 mg/PCU.

Sales of macrolides have also dropped by 58% from 2011 to 2018 and by 29% from 2017 to 2018, accounting in 2018 for 8% of the total annual sales.

A programme for the surveillance of antibiotic use continues to be developed in the UK and the UK-VARSS 2018 report[1] included antibiotic use data from the pig, turkey, broiler, duck, laying hen, gamebird, salmon, trout, dairy and beef sectors.

Antibiotic use data in pigs were extracted from the electronic Medicines Book for Pigs (eMB-Pigs), software launched by the Agriculture and Horticulture Development Board for pigs (AHDB Pork) in April 2016. The 2018 data represents 89% industry coverage, and these data showed that between 2015 and 2018, using ESVAC PCU weights as the denominator, antibiotic use decreased by 60%, from 278 mg/kg in 2015 to 110 mg/kg in 2018.

The British Poultry Council (BPC) provided data collected from their members, representing 90% of the commercial meat poultry industry. These data showed that between 2014 and 2018, again using ESVAC PCU weights as the denominator, antibiotic use in the chicken sector decreased by 75%, from 48.8 mg/kg to 12.4 mg/kg, and in the turkey sector decreased by 78%, from 219.5 mg/kg to 46.7 mg/kg.

[1] https://www.gov.uk/government/collections/veterinary-antimicrobial-resistance-and-sales-surveillance