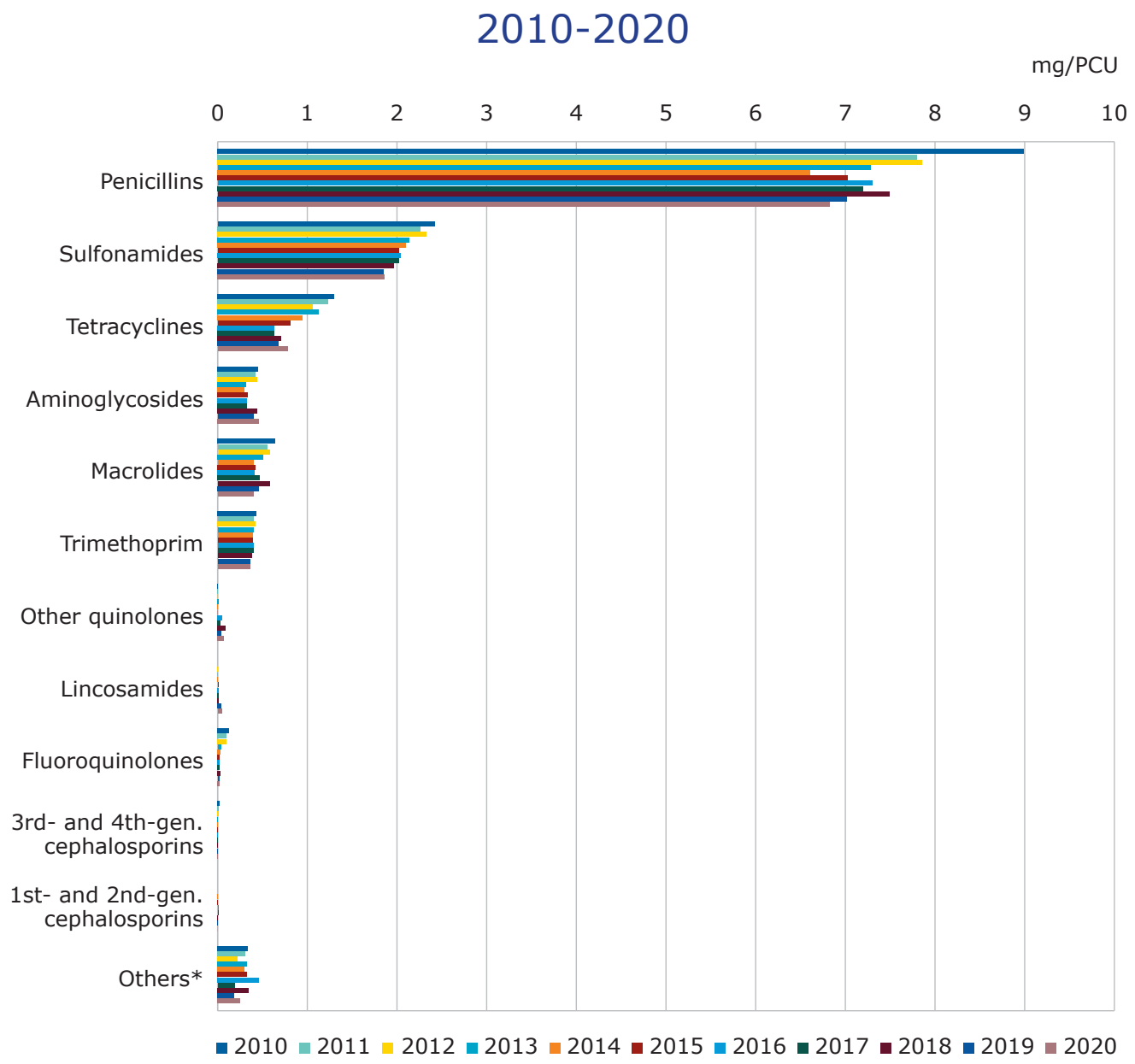
SWEDEN

23 November 2021
EMA/499230/2021
Veterinary Medicines Division

SALES TRENDS (MG/PCU) OF ANTIMICROBIAL VMPs FOR FOOD-PRODUCING ANIMALS



For reasons of commercial confidentiality, sales of amphenicols, pleuromutilins and polymyxins are aggregated as 'Others*'.

No sales of other quinolones in 2012 (data on sales of antimicrobials for fish were not available) and 2015.

No sales of other antibacterials in any of the years.

No reporting of sales for use in farmed fish in 2012 and under-reporting in 2017.

In Sweden, sales (in mg/PCU) were relatively stable throughout the period 2010–2020. In 2011, sales of VMPs on special license were not fully captured, making that year suboptimal for comparison of trends. Still, in the following, the sales in 2020 will be compared with those in 2011 (ESVAC reference year). In addition, information on comparisons with 2010 will be given, where relevant. From 2011 (13.1 mg/PCU) to 2020 (11.1 mg/PCU), total sales of antimicrobials for food-producing animals declined by 15.3% (24.6% when compared with 2010).

A decline in sales was noted for most antimicrobial classes. In 2020, the highest-selling classes were penicillins (61.6%) and sulfonamides (16.8%). Beta-lactamase-sensitive penicillins (e.g. benzylpenicillin) accounted for 93.2% of total sales of penicillins. Sales of tetracyclines accounted for only 7.0% of total sales in 2020. Sales of VMPs formulated for medication of groups of animals via feed or water accounted for 10.7% of total sales in 2020, compared with 12.2% in 2011 (13.3% in 2010).

Sales of 3rd- and 4th-generation cephalosporins, fluoroquinolones and polymyxins were very low in comparison with aggregated sales for the 25 countries from 2011 to 2020 (50–100 times lower). Since 2011, Swedish sales of VMPs in these classes have decreased by 83.8%, 75.8% and 92.1%, respectively. The figure given for polymyxins is a slight underestimate as this class was only sold on special license in 2011. Other quinolones are only used in finfish, and sales vary between years as water temperatures strongly influence morbidity. More information on prescription of antimicrobials for fish is given in the Swedres-Svarm 2020 report[1].

The notable decreases in sales of 3rd- and 4th-generation cephalosporins and fluoroquinolones can probably be explained by increased adherence to the guidance for prudent use of antibiotics in the treatment of animals and by a regulation limiting veterinarians' rights to prescribe these types of antimicrobial, which came into force on 1 January 2013.

In Sweden, polymyxins (colistin) are only authorised for use in pigs, with weaning diarrhoea as the sole indication. Between 2010 and 2015, sales were relatively stable. During 2016, findings of transferable resistance to colistin were communicated to stakeholders and sales started to decline. In 2020, a decrease of 92.1% in comparison to 2011 was observed (93.7% compared to 2010).

In 2020, the Swedish government updated the strategy on antimicrobial resistance. An inter-sectoral coordinating mechanism, mainly comprising representatives of national-level authorities, was initiated in 2012. In 2020, the group included representatives from 25 authorities and organisations working with the public health, animal, food and environmental sectors[2]. Joint action plans based on the government's objectives are regularly updated and adopted by the group. Among the activities in the action plan for 2021–2024 of relevance for ESVAC is the development of better systems for collection of data on use of antimicrobials in different species.

The downward trends in sales reflect a long-term strategy, applied at least since the late 1980s, in which the core element is reduction of the need for antimicrobials through, for example, biosecurity, disease-control programmes and optimised management and husbandry. When antimicrobials are needed, guidance for veterinarians on their prudent use is available and should be followed. Authorities, academia, professional advisors, veterinarians and farmers all collaborate with the aim of ensuring continuous improvement of animal health and prudent use of antimicrobials.

More information on Sweden's work against antimicrobial resistance within a 'One Health' perspective can be found in a brochure published by the Swedish inter-sectoral coordinating mechanism in 2020[3].

Information on the country's efforts to ensure prudent use of antimicrobials is available in the report from the European Commission's fact-finding mission in October 2017[4].

[1] https://www.sva.se/en/our-topics/antibiotics/svarm-resistance-monitoring/swedres-svarm-reports/
[2] https://www.folkhalsomyndigheten.se/the-public-health-agency-of-sweden/communicable-disease-control/antibiotics-and-antimicrobial-resistance/intersect-collab-mechanism-against-amr/
[3] https://www.sva.se/media/cvrbeqcy/swedish-work-against-amr.pdf
[4] https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3957&rep_inspection_ref=xxx