

Antimicrobial consumption – Annual Epidemiological Report 2019

Reporting on data retrieved from The European Surveillance System (TESSy)* on 9 November 2020

Key facts

- Thirty countries – 28 EU Member States and two EEA countries (Iceland and Norway) – reported data on antimicrobial consumption for 2019. Twenty-five countries reported both community and hospital consumption, three countries (Austria, Germany and Iceland) reported only community consumption, and two countries (Cyprus and Czechia) reported total consumption for both sectors combined.
- Antimicrobial consumption is expressed as the number of defined daily doses (DDDs) per 1 000 inhabitants per day. The Anatomical Therapeutic Chemical (ATC) DDD Index 2020 was used for the analysis of 2019 data as well as of historical data in order to assess 10-year trends.
- In 2019, the average total (community and hospital sector combined) consumption of antibacterials for systemic use (ATC group J01) in the EU/EEA was 19.4 DDD per 1 000 inhabitants per day (country range: 9.5–34.1).
- The average total (community and hospital sector combined) consumption of antivirals for systemic use (ATC group J05) was 2.3 DDD per 1 000 inhabitants per day (country range: 0.25–6.75).
- The most recent data on antimicrobial consumption as well as historical data (data for 1997–2019) are available from the public [ESAC-Net interactive database](#) on ECDC's website.

Community (primary care sector)

- In the community, the average consumption of antibacterials for systemic use (ATC group J01) was 18.0 DDD per 1 000 inhabitants per day (country range: 8.7–32.4). Between 2010 and 2019, no statistically significant change was observed for the EU/EEA overall. However, statistically decreasing trends were observed for 12 countries (Austria, Belgium, Denmark, Finland, Germany, Italy, Luxembourg, the Netherlands, Norway, Slovenia, Spain and Sweden). Statistically significant increasing trends were observed for six countries (Bulgaria, Greece, Iceland, Ireland, Latvia and Poland).
- The average ratio of consumption of broad-spectrum penicillins, cephalosporins, macrolides (except erythromycin) and fluoroquinolones to the consumption of narrow-spectrum penicillins, cephalosporins and macrolides (i.e. erythromycin) in the community was 2.84 (country range: 0.1–20.1).
- The average consumption of antimycotics and antifungals for systemic use (ATC groups J02 and D01B) in the community was 1.0 DDD per 1 000 inhabitants per day (country range: 0.41–3.0).

Hospital sector

- In the hospital sector, the average consumption of antibacterials for systemic use was 1.8 DDD per 1 000 inhabitants per day (country range: 0.8–2.5). Between 2010 and 2019, no statistically significant change was observed for the EU/EEA overall. However, statistically significant decreasing trends were observed for seven countries (Belgium, Finland, Latvia, Luxembourg, the Netherlands, Norway and Spain), and statistically significant increasing trends were observed for six countries (Bulgaria, Croatia, Ireland, Lithuania, Malta and the United Kingdom).
- The average consumption of carbapenems in the hospital sector was 0.04 DDD per 1 000 inhabitants per day (country range: 0.01–0.13) and no statistically significant change was observed for the EU/EEA overall between 2010 and 2019. However, statistically significant increasing trends were observed for 11 countries (Bulgaria, Croatia, Denmark, Estonia, Greece, Hungary, Lithuania, Malta, the Netherlands, Poland and Slovakia) during 2010-2019, and statistically significant decreasing trends were observed for two countries (Norway and Portugal) during the same period.
- The average consumption of polymyxins in the hospital sector was 0.01 DDD per 1 000 inhabitants per day (country range: <0.001–0.08) and consumption significantly increased between 2010 and 2019. Statistically significant increasing trends were observed for 10 countries (Bulgaria, Denmark, Hungary, Greece, Italy, Latvia, Norway, Slovakia, Spain and the United Kingdom), and statistically significant decreasing trends were reported for two countries (Ireland and the Netherlands).
- The average proportion of glycopeptides, third- and fourth-generation cephalosporins, monobactams, carbapenems, fluoroquinolones, polymyxins, piperacillin and enzyme inhibitor, linezolid, tedizolid and daptomycin out of the total consumption of antibacterials for systemic use in the hospital sector was 33.7% (country range: 16.6-58.5%).
- The average consumption of antimycotics and antifungals for systemic use in the hospital sector (ATC groups J02 and D01B) was 0.12 DDD per 1 000 inhabitants per day (country range: 0.03–0.21).

** Important note: Data were updated using the ATC/DDD Index 2020, which include several DDD alterations that were implemented in 2019. Data in this report should not therefore be compared with data reported by ECDC prior to 2019. For the most recent data on antimicrobial consumption and trends in EU/EEA countries, readers should instead refer to the most current report or the ESAC-Net interactive database.*