

# Antimicrobial consumption – Annual Epidemiological Report 2018

Reporting on data retrieved from The European Surveillance System (TESSy)\* on 18 October, 2019

## Key facts

- Twenty-eight countries – 26 EU Member States and two EEA countries (Iceland and Norway) – reported data on antimicrobial consumption for 2018. Twenty-four countries reported both community and hospital consumption, three countries reported only community consumption, and one country reported total consumption for both sectors but without differentiating between them.
- 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 2019 was used for the analysis of 2018 data as well as of historical data in order to assess 10-year trends.
- In 2018, the average total consumption (community and hospital sector) of antibacterials for systemic use (ATC group J01) in the EU/EEA was 19.8 DDD per 1 000 inhabitants per day (country range: 9.7–34.0).
- The average consumption of antivirals for systemic use (ATC group J05) in both sectors (community and hospital sector) was 2.2 DDD per 1 000 inhabitants per day (country range: 0.23–6.78).
- The most recent data on antimicrobial consumption are available from the public [ESAC-Net interactive database](#) (data for 1997–2018) on the ECDC website.

## Community (primary care sector)

- In the community, the average consumption of antibacterials for systemic use (Anatomical Therapeutic Chemical (ATC) group J01) was 18.3 DDD per 1 000 inhabitants per day (country range: 8.9–32.4). During the period 2009–2018, 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, Portugal, Slovenia, Sweden). Statistically significant increasing trends were observed for four countries (Bulgaria, Ireland, Latvia, 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: 0.1–24.0).
- 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: 0.39–3.0).

## 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). During the period 2009–2018, no statistically significant change was observed for the EU/EEA overall. However, statistically significant decreasing trends were observed for five countries (Belgium, Finland, Latvia, Luxembourg, Norway), and statistically significant increasing trends were observed for six countries (Bulgaria, Croatia, Denmark, Ireland, Malta, Sweden).
- The average consumption of carbapenems in the hospital sector was 0.04 DDD per 1 000 inhabitants per day (country range: 0.01–0.12); this average did not increase significantly between 2009 and 2018. Statistically significant increasing trends were observed for six countries (Bulgaria, Croatia, Denmark, Estonia, Hungary, Malta), and statistically significant decreasing trends were observed for two countries (Portugal and Norway) 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: <0.001–0.07); consumption increased significantly between 2009 and 2018. Statistically significant increasing trends were observed for eight countries (Bulgaria, Denmark, Estonia, Hungary, Latvia, Norway, Slovenia, Sweden); statistically significant decreasing trends were reported in one country (Ireland).
- The average proportion of glycopeptides, third- and fourth-generation cephalosporins, monobactams, carbapenems, fluoroquinolones, polymyxins, piperacillin and enzyme inhibitor, linezolid, tedizolid and daptomycin of total consumption of antibacterials for systemic use in the hospital sector was 34.1% (country range: 17.3–58.0%).
- The average consumption of antimycotics and antifungals for systemic use in the hospital sector (ATC groups J02 and D01B) was 0.14 DDD per 1 000 inhabitants per day (country range: 0.03–0.21).

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