

# ECDC publishes 2014 surveillance data on antimicrobial resistance and antimicrobial consumption in Europe

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In relation to the 8th European Antibiotic Awareness Day on 18 November, the European Centre for Disease Prevention and Control (ECDC) has published the annual report of the European Antimicrobial Resistance Surveillance Network (EARS-Net) [1]. On the same occasion, an update with 2014 data of the EARS-Net interactive database on antimicrobial resistance [2] and the European Surveillance of Antimicrobial Consumption Network (ESAC-Net) interactive database on antimicrobial consumption [3] was released, on the ECDC website.

The data on antimicrobial resistance showed that the percentages of *Klebsiella pneumoniae* isolates resistant to fluoroquinolones, third-generation cephalosporins and aminoglycosides, as well as combined resistance to all three antibiotic groups increased significantly at European Union (EU)/European Economic Area (EEA) level over the last four years. A significant increase was also observed for carbapenem resistance in *K. pneumoniae*.

For *Escherichia coli*, resistance to third-generation cephalosporins and combined resistance to fluoroquinolones, third-generation cephalosporins and aminoglycosides increased significantly at EU/EEA level. The increase in combined resistance, and the increase in resistance to last line groups of antimicrobials such as the carbapenems, is a serious cause for concern and a threat to patient safety in Europe.

Data on antimicrobial consumption in 2014 show that the overall consumption of antimicrobials in the community in the EU/EEA was 21.6 defined daily doses (DDD) per 1,000 inhabitants and per day. The large inter-country variation in antibiotic consumption observed in previous years remained. When antibiotic consumption was expressed in terms of number of packages (a better estimate for prescriptions) per 1,000 inhabitants and per day, five countries (Denmark, Luxembourg, Slovenia, Spain and Sweden) showed a significant decrease during 2010–2014.

During the same period, antibiotic consumption in the hospital sector (expressed in DDD per 1,000 inhabitants and per day) showed a significant increasing trend. A significant increase in the consumption of specific antibiotic groups, e.g. carbapenems, was also observed during this period at EU/EEA level, and in several countries. Although the vast majority of antibiotics is consumed in the community, i.e. outside hospitals, antibiotic consumption in hospitals is a major driver of the spread of multidrug-resistant bacteria responsible for healthcare-associated infections.

## References

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