

The safety and adequacy of prescribing guidelines and practices can be analysed to develop indicators of health care quality, supplementing consumption and expenditure information (see indicator “Pharmaceutical expenditure” in Chapter 5). The overuse, underuse or misuse of prescription medicines can cause significant hazards to health and lead to wasteful expenditure (OECD, 2017). These risks apply notably to the use of antibiotics, opioids and benzodiazepines.

Antibiotics should be prescribed only where there is a need that is clearly supported by evidence to reduce the risk of resistant strains of bacteria. Furthermore, second-line antibiotics such as quinolones and cephalosporins should generally be used only when first-line antibiotics have proven ineffective. Antimicrobial resistance (AMR) is a growing threat to people’s health and to economies (OECD, 2018).

Total volumes of all antibiotics prescribed in primary care varied over three-fold across European countries in 2017, with Estonia and Sweden reporting the lowest volumes (at 10 DDD per 1 000 population per day), and Greece and Italy reporting the highest (at about 30 DDD or more). Volumes of second-line antibiotics varied over 20-fold across countries: Denmark, Norway, Sweden and the United Kingdom reported the lowest volumes of second-line antibiotics, whereas Greece, Italy and the Slovak Republic reported the highest (Figure 6.31). Besides cross-country differences in the prevalence of antibiotic-resistant bacteria, variation in the volumes of antibiotics prescribed is likely to be explained by differences in the guidelines and incentives that influence primary care prescribers and attitudes and expectations of patients regarding the treatment of infectious diseases.

Opioids are often used to treat acute pain and pain associated with cancer. Over the last decade, they have been used increasingly to treat chronic pain, despite the risk of dependence, dose increase, shortness of breath and death (OECD, 2019). Across EU countries, the average volume of opioids prescribed in primary care in 2017 was almost 15 defined daily doses (DDDs) per 1 000 population per day. Iceland reports volumes more than twice the EU average, while Italy and Estonia report the lowest volumes (Figure 6.32). While these numbers reflect prescription patterns in primary care, they are also influenced by differences in the availability of these products, as the availability of opioids is also low in these countries (OECD, 2019). Cross-country variations can also be explained in part by differences in clinical practice in pain management, as well as differences in regulation, legal frameworks for opioids, prescribing policies and treatment guidelines.

Despite the risk of adverse side effects such as fatigue, dizziness and confusion, benzodiazepines are often prescribed for older adults for anxiety and sleep disorders. Long-term use

of benzodiazepines can lead to adverse events (falls, road accidents and overdoses), tolerance, dependence and dose escalation. As well as the period of use, there is concern about the type of benzodiazepine prescribed, with long-acting types not recommended for older adults because they take longer for the body to eliminate (OECD, 2017).

Italy reports the lowest use of long-acting benzodiazepines among people aged 65 and over (close to 0) while Estonia, Slovenia and Spain report the highest use among the 12 EU countries providing these data. Their chronic use is also lowest in Italy but highest in Ireland, Portugal and Spain (Figure 6.33). The large variation can be explained in part by different reimbursement and prescribing policies for benzodiazepines, as well as possible differences in disease prevalence and treatment guidelines.

Definition and comparability

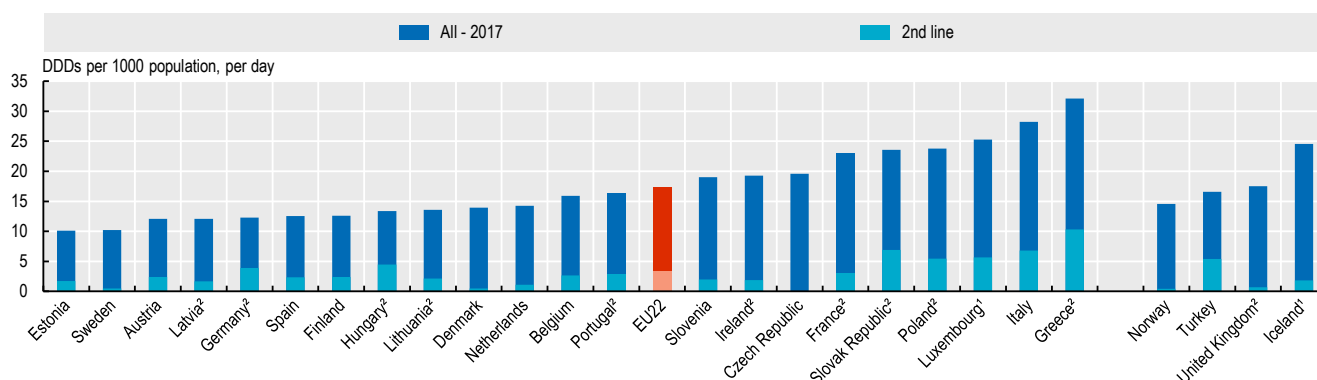
Defined daily dose (DDD) is the assumed average maintenance dose per day for a drug used for its main indication in adults. For instance, the DDD for oral aspirin equals 3 grammes, the assumed maintenance daily dose to treat pain in adults. DDDs do not necessarily reflect the average daily dose actually used in a given country. For more detail, see <http://www.whocc.no/atcddd>.

Data coverage varies across countries. Austria, Latvia, Estonia, Portugal, Spain and Sweden include data for primary care physicians only, while others include data from other providers. Data relate to reimbursed prescriptions, with the exception of Iceland, the Netherlands (for benzodiazepines only) and Slovenia, which include non-reimbursed medicines. Data for Germany are based on prescription data of statutory health insurance for outpatient care. Further information on sources and methods is available at the following OECD website: https://qdd.oecd.org/subject.aspx?Subject=hcqo_meta.

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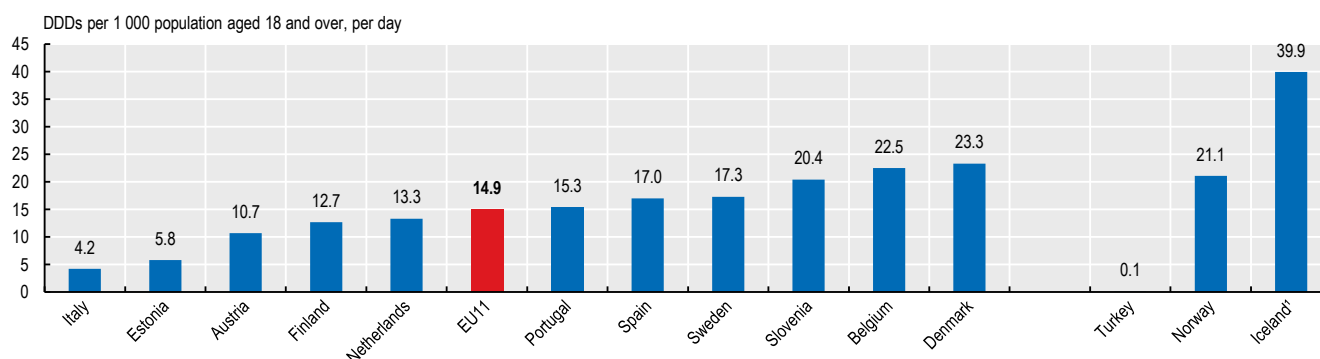
Figure 6.31. Overall volume of antibiotics prescribed in primary care, 2017 (or nearest year)



Note: The EU average is unweighted. All antimicrobial products defined with ATC code J01, and second-line with ATC codes J01D and J01M. 1. Three-year average. 2. Data from European Centre for Disease Prevention and Control as OECD Health Statistics data are not available. Source: OECD Health Statistics 2020 and ECDC.

StatLink <https://stat.link/8nk16b>

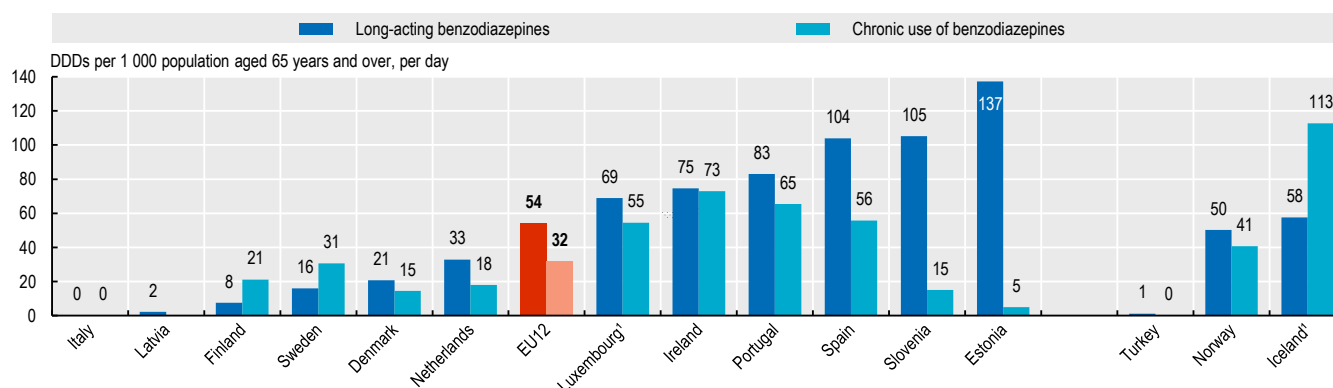
Figure 6.32. Overall volume of opioids prescribed in primary care, 2017 (or nearest year)



Note: The EU average is unweighted. Exclusion of products used in the treatment of addiction. 1. Three-year average. Source: OECD Health Statistics 2020.

StatLink <https://stat.link/wvsztx>

Figure 6.33. Benzodiazepine use in people aged 65 and over, 2017 (or nearest year)



Note: The EU average is unweighted. 1. Three-year average. Source: OECD Health Statistics 2020.

StatLink <https://stat.link/wb72qj>



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