

Pharmaceutical consumption

Pharmaceutical consumption has been increasing for decades, driven by a growing need for drugs to treat age-related and chronic diseases, and by changes in clinical practice. This section examines consumption of four categories of medicines used in select chronic conditions: anti-hypertensives, lipid-modifying agents (such as cholesterol-lowering medicines), anti-diabetic agents and anti-depressants (Figure 9.6). These medicines address illnesses for which the prevalence has increased markedly across OECD countries in recent decades.

Consumption of anti-hypertensive drugs in OECD countries increased by 65% on average between 2000 and 2019, nearly quadrupling in Costa Rica and Estonia. It remained highest in Germany and Hungary, which reported consumption levels almost five times those seen in Korea. These variations probably reflect both differences in the prevalence of hypertension and variations in clinical practice.

Even greater growth was seen in the use of lipid-modifying agents, with consumption in OECD countries increasing by a factor of nearly four between 2000 and 2019. The United Kingdom, Denmark, Norway and Belgium reported the highest levels of consumption per capita in 2019, with about a six-fold variation in consumption levels across OECD countries.

The use of anti-diabetic medications also grew dramatically, doubling over the same period. This growth can be explained in part by the rising prevalence of diabetes, which is largely linked to the increasing prevalence of obesity (see indicator “Overweight and obesity” in Chapter 4), a major risk factor for development of type 2 diabetes. In 2019, consumption of anti-diabetic drugs was highest in Finland and lowest in Austria, Chile and Latvia, with a two-fold variation.

Consumption of anti-depressant medicines more than doubled in OECD countries between 2000 and 2019. This may reflect improved recognition of depression, availability of therapies, evolving clinical guidelines or changes in patient and provider attitudes (Mars et al., 2017[7]). However, there was significant variation between countries, with Iceland reporting the highest level of consumption in 2019 at a rate eight times that of Latvia.

Preliminary analysis of 2020 data from a subset of OECD countries showed that pharmaceutical consumption in the above categories had either remained stable or even increased relative to 2019, suggesting that access to medicines for chronic diseases appears to have been maintained during the pandemic. This may in part reflect the implementation of measures by pharmacists to support continuity of access to treatments for patients with chronic conditions (see, for example, indicator “Pharmacists and pharmacies”). Another possible reason may be the increased use of online health care services (see indicator “Digital health” in Chapter 5), including online or phone prescriptions. In mid-2020, for example, around 47% of adults in 22 OECD EU countries had received a prescription online or by phone since the beginning of the

pandemic, a proportion that increased by 12% in early 2021, according to the Eurofound survey (Eurofound, 2021[8]). Countries with greater growth in online and phone prescriptions between mid-2020 and early-2021, such as Greece and Portugal, also reported increases in pharmaceutical consumption from 2019 to 2020.

Definition and comparability

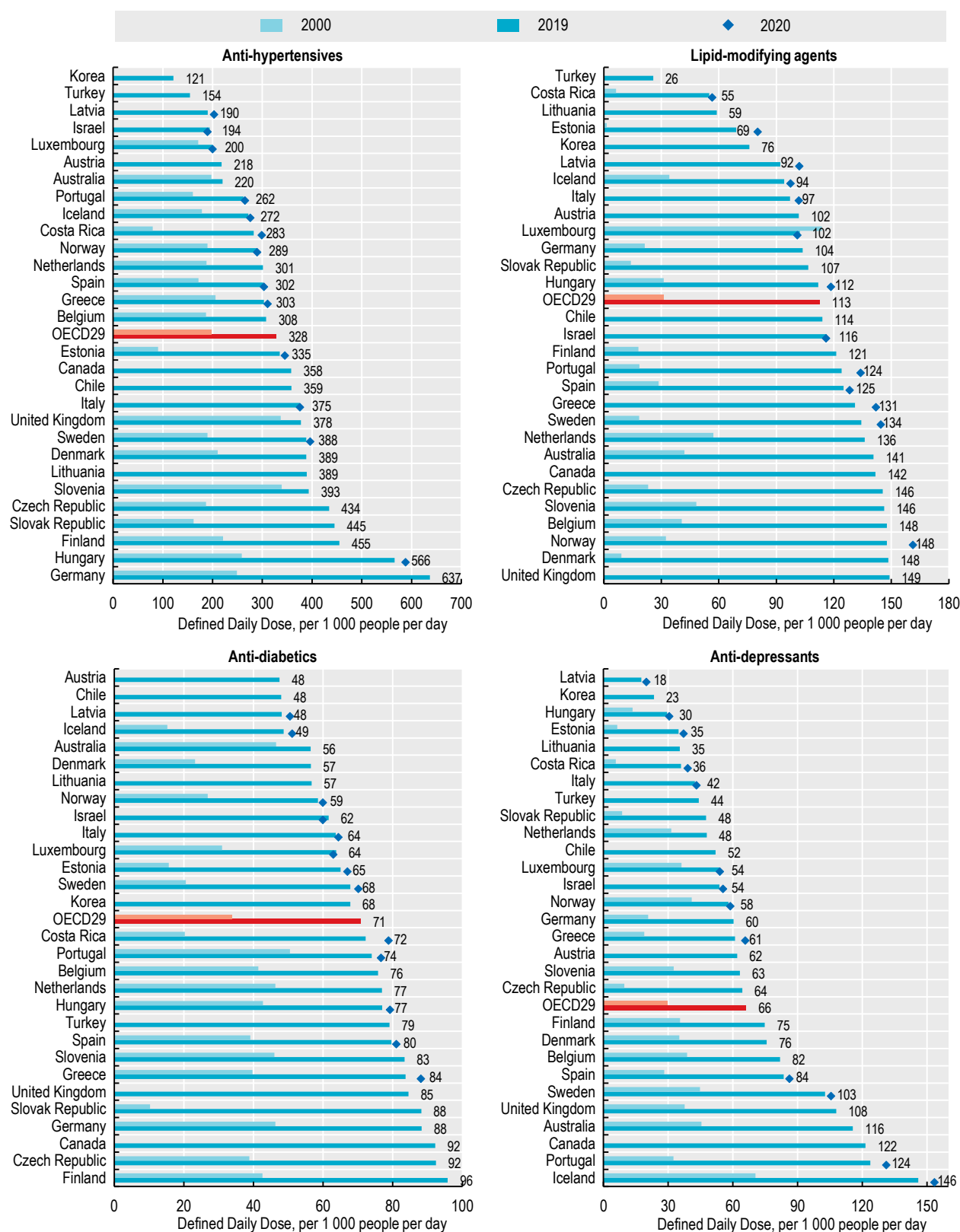
The Defined Daily Dose (DDD) is the assumed average maintenance dose per day for a drug used for its main indication in adults. DDDs are assigned to each active ingredient in a given therapeutic class by international expert consensus. For example, the DDD for oral aspirin is 3 grammes, which is the assumed maintenance daily dose to treat pain in adults. DDDs do not necessarily reflect the average daily dose actually used in a given country. They can be aggregated within and across therapeutic classes of the Anatomical Therapeutic Chemical (ATC) classification of the World Health Organization (WHO). For more detail, see <https://www.whocc.no/>.

The volume of anti-hypertensive drugs’ consumption presented in Figure 9.6 refers to the sum of five ATC 2nd level categories, which may all be prescribed for hypertension (C02 – anti-hypertensives, C03 – diuretics, C07 – beta blocking agents, C08 – calcium channel blockers and C09 – agents acting on the renin-angiotensin system). ATC codes for other medicine classes are C10 – lipid-modifying agents, A10 – drugs used in diabetes (i.e. anti-diabetic medicines, including insulins and analogues) and N06A – anti-depressants.

Data refer to outpatient consumption only, except for Chile, Costa Rica, the Czech Republic, Denmark, Estonia, Finland, France, Iceland (before 2011), Italy, Korea, Lithuania, Norway, the Slovak Republic, Spain (since 2018) and Sweden, where data also include hospital consumption. For Canada, only data from provinces for which population level data were available were included (British Columbia, Manitoba and Saskatchewan). The data for Spain refer to inpatient and outpatient consumption for prescribed drugs covered by the national health system (public insurance), while the data for Luxembourg only refer to outpatient consumption. The data for Luxembourg are underestimated due to incomplete consideration of products with multiple active ingredients.

An additional data point for 2020 was available in some OECD countries, as indicated in Figure 9.6. Data labels correspond to 2019 data.

Figure 9.6. Consumption of medicines for selected chronic conditions, 2000, 2019 and 2020 (or nearest years)



Note: See box on "Definition and comparability" for a break-down of medicines by ATC codes. Data labels correspond to 2019 data.

Source: OECD Health Statistics 2021.

StatLink <https://stat.link/7i01wm>



From:
Health at a Glance 2021
OECD Indicators

Access the complete publication at:
<https://doi.org/10.1787/ae3016b9-en>

Please cite this chapter as:

OECD (2021), "Pharmaceutical consumption", in *Health at a Glance 2021: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/5689c05c-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.