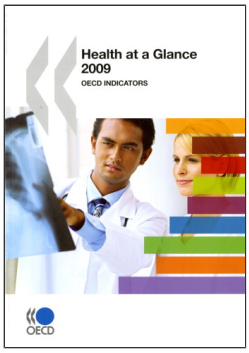


From:
Health at a Glance 2009
OECD Indicators

Access the complete publication at:
http://dx.doi.org/10.1787/health_glance-2009-en

Pharmaceutical consumption

Please cite this chapter as:

OECD (2009), "Pharmaceutical consumption", in *Health at a Glance 2009: OECD Indicators*, OECD Publishing.
http://dx.doi.org/10.1787/health_glance-2009-46-en

4.10. Pharmaceutical consumption

The consumption of pharmaceuticals is increasing across OECD countries not only in terms of expenditure (see Indicator 7.4 "Pharmaceutical expenditure"), but also in terms of volume (or quantity) of drugs consumed. One of the factors contributing to the rise in pharmaceutical consumption is the ageing of the population, which leads to growing demand for drugs to treat or at least control different ageing-related diseases. But the trend rise in pharmaceutical consumption is also observed in countries where the population ageing process is less advanced, indicating that other factors such as physicians' prescription habits or the degree of cost-sharing with patients also play a role.

This section provides information on the current level and growth rate in the volume of consumption of four categories of pharmaceuticals: antidiabetics, antidepressants, anticholesterols and antibiotics. The volume of consumption of these drugs is measured through the "defined daily dose" (DDD) unit, which is recommended by the WHO Collaborating Center for Drug Statistics (see the box on "Definition and deviations" below).

There are a lot of variations across countries in the consumption of drugs for the treatment of diabetes, with the consumption in Iceland being almost three times lower than in Finland, Germany or Greece (Figure 4.10.1). These differences can be partly explained by the prevalence of diabetes, which is low in Iceland and relatively high in Germany (see Indicator 1.12). However, some of the top consumers are not countries in which the prevalence of diabetes is high. Between 2000 and 2007, the consumption of antidiabetics increased in all countries. The growth rate was particularly strong in the Slovak Republic (although it started from a low level), the United Kingdom, Denmark, Finland and Iceland. The rise in consumption can be attributed to a rising prevalence of diabetes as well as increases in the proportion of people treated and the average dosages used in treatments (Melander *et al.*, 2006).

Iceland reports the highest level of consumption of antidepressants, followed by Australia and other Nordic countries (Figure 4.10.2). The Slovak Republic, Hungary and the Czech Republic have the lowest levels of consumption, although consumption of antidepressants in these countries has grown rapidly over the past seven years. Germany is an exception with both low levels and slow growth in consumption.

The consumption of anticholesterols ranges from a high of 206 DDDs per 1 000 people per day in Australia to a low of 49 in Germany (Figure 4.10.3). While this might reflect partly differences in the prevalence of high bad cholesterol levels in the population, these differences can also be attributed to differences in clinical guidelines for the control of bad cholesterol. For instance, guidelines in Australia target lower bad cholesterol levels than those in European countries; and differences also exist in target levels within Europe (National Heart Foundation of Australia *et al.*, 2005; Hockley and Gemmill, 2007). Both the epidemiological context (for instance, growing obesity) and increased screening and treatment explain the very rapid growth in the consumption of anticholesterols across all OECD countries for which data are available.

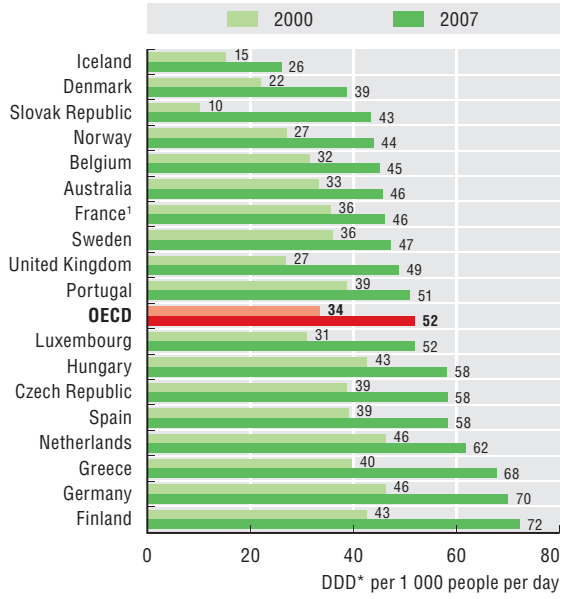
The consumption of antibiotics varies from a low of 9 DDDs per 1 000 people per day in Switzerland to a high of 32 in Greece (Figure 4.10.4). As over-consumption of antibiotics has been acknowledged to create bacterial resistance, many countries have launched in recent years information campaigns targeting physicians and/or patients in order to reduce antibiotic consumption. As a result, consumption has stabilised in many countries and even decreased in some others (such as France, Portugal and the Slovak Republic). By contrast, consumption has risen between 2000 and 2007 in countries that had below-average initial levels of consumption (such as Denmark and Ireland).

Definition and deviations

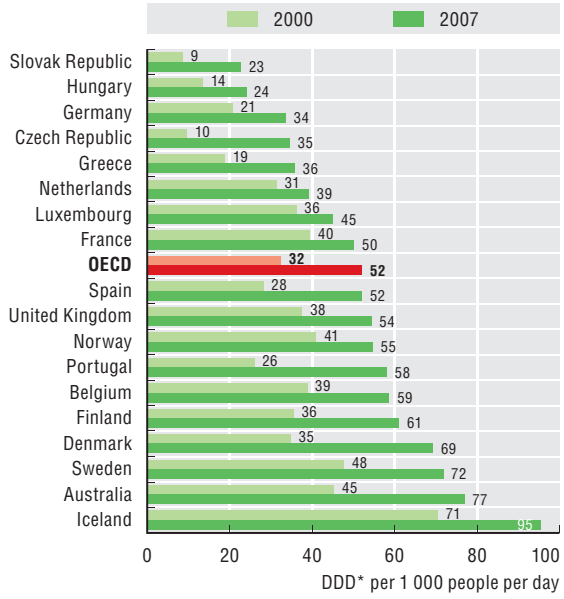
Defined daily dose (DDD) is defined as the assumed average maintenance dose per day for a drug used on its main indication in adults. DDDs are assigned to each active ingredient(s) in a given therapeutic class by international expert consensus. For instance, the DDD for oral aspirin equals 3 grams, which 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. DDDs can be aggregated within and across therapeutic classes of the Anatomic-Therapeutic Classification (ATC). For more detail, see *www.whocc.no/atcddd*.

Data generally refer to out-patient consumption except for the Czech Republic, Finland, Hungary, and Sweden, where data also include hospital consumption. Greek figures may include parallel exports.

4.10.1 Antidiabetics consumption, DDD* per 1 000 people per day, 2000 and 2007 (or nearest year)

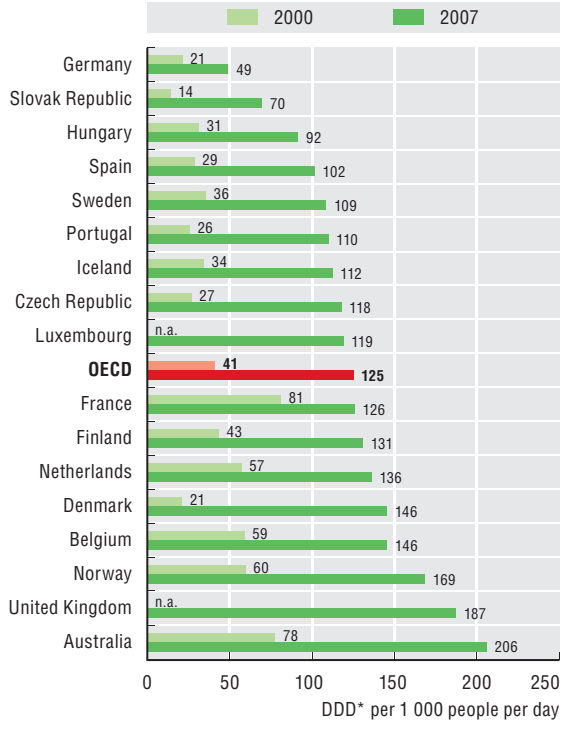


4.10.2 Antidepressants consumption, DDD* per 1 000 people per day, 2000 and 2007 (or nearest year)

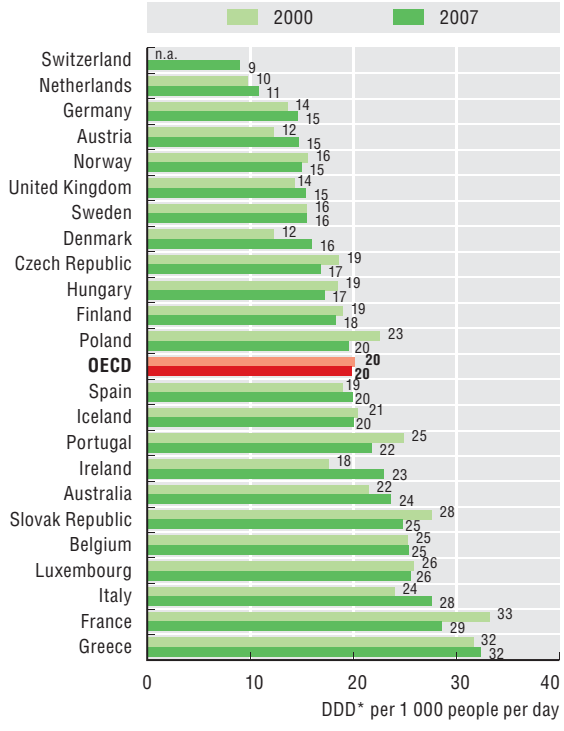


1. Only represent 88% of consumption.

4.10.3 Anticholesterols consumption, DDD* per 1 000 people per day, 2000 and 2007 (or nearest year)



4.10.4 Antibiotics consumption, DDD* per 1 000 people per day, 2000 and 2007 (or nearest year)



* Defined daily dose.

Source: OECD Health Data 2009.

StatLink http://dx.doi.org/10.1787/718618836803