OECD Health Statistics 2025
Definitions, Sources and Methods

Total pharmaceutical consumption by DDDs

Total pharmaceutical consumption according to the Anatomical Therapeutic Chemical (ATC) classification/Defined Daily Dose (DDD) system, created by the WHO Collaborating Centre for Drug Statistics Methodology.

The Anatomical Therapeutic Chemical classification system divides drugs into different groups according to the organ system on which they act and/or therapeutical, pharmacological and chemical characteristics. The main principles for the classification of medicinal substances according to the ATC is presented in the publication "Guidelines for ATC classification and DDD assignment", WHO Collaborating Centre for Drug Statistics Methodology, Oslo. The publication "ATC Index with DDDs" lists all assigned ATC codes and DDD values. Both publications are updated annually.

The ATC codes below are based on the 2025 version of the ATC Index.
All alterations implemented from January 2025 are available on the WHO Collaborating Centre for Drug Statistics Methodology website at https://www.whocc.no/lists_of__temporary_atc_ddds_and_alterations/.

The unit of measurement is Defined Daily Dose (DDD), defined as the assumed average maintenance dose per day for a drug used on its main indication in adults.

Data should reflect, where possible, the total consumption for each pharmaceutical drug category, i.e. including consumption in hospitals.

Main groups / groups based on three levels	Codes (2025 Index)
A-Alimentary tract and metabolism	**A**
Antacids	A02A
Drugs for peptic ulcer and gastro-oesophageal reflux diseases (GORD)	A02B
Drugs used in diabetes	A10
Insulins and analogues New	A10A New
Blood glucose lowering drugs, excluding insulins New	A10B New
Other drugs used in diabetes New	A10X New
B-Blood and blood forming organs	**B**
C-Cardiovascular system	**C**
Cardiac glycosides	C01A
Antiarrhythmics, Class I and III	C01B
Antihypertensives	C02
Diuretics	C03
Beta blocking agents	C07
Calcium channel blockers	C08
Agents acting on the Renin-Angiotensin system	C09
Lipid modifying agents	C10
G-Genito urinary system and sex hormones	**G**
Sex hormones and modulators of the genital system	G03
H-Systemic hormonal preparations, excluding sex hormones and insulins	**H**
J-Antiinfectives for systemic use	**J**
Antibacterials for systemic use	J01
M-Musculo-skeletal system	**M**
Antiinflammatory and antirheumatic products non-steroids	M01A

N-Nervous system	**N**
Analgesics	N02
Antipsychotics New	N05B
Anxiolytics	N05A New
Hypnotics and sedatives	N05C
Antidepressants	N06A
Anti-dementia drugs New	N06D New
Drugs used in addictive disorders New	N07B New
R-Respiratory system	**R**
Drugs for obstructive airway diseases	R03

Notes:

Data on **Antibacterials for systemic use (J01)** for the **community (primary care sector) and hospital sector** come from the **European Surveillance of Antimicrobial Consumption Network (ESAC-Net) database © European Centre for Disease Prevention and Control (ECDC) 2025,** for 27 European countries (Austria, Belgium, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Bulgaria, Croatia, Romania; and including the United Kingdom up until 2017) and all years.

Data extracted 10 June 2025 via https://www.ecdc.europa.eu/en/antimicrobial-consumption/surveillance-and-disease-data/database (trends available at https://qap.ecdc.europa.eu/public/extensions/AMC2_Dashboard/AMC2_Dashboard.html#country-comparison-tab).

Data for **Antiinfectives for systemic use (J)** are the sum of **J01-Antibacterials for systemic use, J02-Antimycotics for systemic use, J04- Antimycobacterials** and **J05-Antivirals for systemic use**, sourced from ESAC-Net.

Coverage:

- Total care includes data from both the hospital sector and the community (primary care sector) and overestimates the figures when used for reporting for the community sector.
- Some countries report reimbursement data that do not include consumption of antimicrobials obtained without prescription and other non-reimbursed courses.
- For more information please see the report "Data source overview".

Summary table

	Data include **drugs dispensed in hospitals**	Data include **non-reimbursed drugs**	Data include **OTC drugs**
Australia	No	Yes	No
Austria	No, drug consumption in hospitals is excluded. Hospital ambulances are only included if they have prescription authorisation for the outpatient sector.	Data cover only drugs reimbursed by the sickness funds within the statutory health insurance.	No
Belgium	No	No	No
Canada	No	No	Generally, claims for OTC drugs are not reimbursed, but OTC drugs are not explicitly excluded.
Chile	Yes	-	Yes
Colombia	Data not available	Data not available	Data not available
Costa Rica	Yes	Yes. Note that public hospitals and clinics do not reimburse drugs purchased in private facilities.	No, only drugs provided in public facilities prior to a medical prescription.
Croatia	Yes	Yes	Yes
Czechia	Yes	Yes	Yes
Denmark	Yes	Yes	Yes

	Data include **drugs dispensed in hospitals**	Data include **non-reimbursed drugs**	Data include **OTC drugs**
Estonia	Yes	Yes	Yes
Finland	Yes. Data based on wholesale of pharmaceuticals.	Yes	Yes
France	Yes. Data include consumption both in hospitals and in pharmacies.	Yes	Yes
Germany	No up until 2017. Since 2018, Following a significant change in account assignment in the official expenditure statistics, the data now additionally include a portion of prescriptions from hospital pharmacies.	Data contain exclusively the drug consumption debited to the statutory health insurance (i.e. drugs reimbursed by German Statutory Health Insurance).	No
Greece	No	No	No
Hungary	Up to 2006 only	Up to 2006 only	Up to 2006 only
Iceland	No	Yes	Yes
Ireland	Data not available	Data not available	Data not available
Israel	No	No	No
Italy	Yes	No	No
Japan	Data not available	Data not available	Data not available
Korea	Yes	Yes	Yes
Latvia	-	-	-
Lithuania	Yes	Yes	Yes
Luxembourg	No up until 2020. Data on medication reimbursed by health insurance include since 2021 pharmaceuticals delivered in hospitals for outpatient consumption	No	No
Mexico	Data not available	Data not available	Data not available
Netherlands	No	No	No
New Zealand	-	-	-
Norway	Yes	Yes	Yes
Poland	No	No	No
Portugal	No	Yes, both reimbursed and non-reimbursed products.	Yes, but only OTC products sold in pharmacies.
Slovak Republic	Yes	Yes	Yes
Slovenia	No, but includes drugs prescribed to hospital patients at discharge, to be collected in a community pharmacy.	Data include all medicines with a valid prescription under compulsory health insurance, irrespective of reimbursement	Only OTC drugs with a medical prescription.
Spain	Since 2018 only, and for hospitals belonging to the public network of the National Health System.	No	No
Sweden	Yes	Yes	Yes, both from pharmacies and from other retailers.
Switzerland	Data not available	Data not available	Data not available
Türkiye	No	Yes	Data include drugs dispensed in pharmacies and non-reimbursed drugs.
United Kingdom	No	No	-
United States	Data not available	Data not available	Data not available

Sources and Methods

Australia

Sources:
2013 onwards: Australian Institute of Health and Welfare analysis of **Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS)** data maintained by the Australian government **Department of Health and Aged Care**.

Prior to 2013: Department of Health and Aged Care analysis of **Pharmaceutical Benefits Scheme (PBS)** and **Repatriation Pharmaceutical Benefits Scheme (RPBS)** data.
PBS/RPBS data were supplemented by unpublished data extracted from the **Drug Utilisation Sub-Committee database** (DUSC).
Methodology:
- Data are based on the ATC Index 2023.
- Data are comprised from three sources:
  (1) Records of prescriptions submitted for payment of a subsidy under the PBS and RPBS;
  (2) From 2013, the collection of under co-payment (non-subsidised) prescription data submitted by pharmacies in the same manner as for subsidised prescriptions;
  (3) Survey data:
    (a) private prescription survey data which ceased in August 2012; and
    (b) under co-payment prescription survey data which ceased in March 2012.

Deviation from the definition: The calculation of DDDs excludes combination products for all years.
Consumption data do not include drugs dispensed to in-patients in public hospitals and do not include OTC drugs.
Break in series in 2013:
- From 2013 there has been a change to the non-subsidised component of the data:
  - Under co-payment data are now collected directly from approved suppliers.
  - Private prescriptions are no longer included (due to survey data being no longer available).

Notes:
- There was a noticeable reduction in the consumption of pharmaceuticals for N02-Analgesics in 2016. This is related to the delisting, and modification of listing, of some paracetamol preparations.
- Data are not complete for the antacids category (A02A) hence not published in the OECD database. Most antacids in Australia are purchased over the counter, and only a few are listed on the Pharmaceutical Benefits Scheme, thus limiting the data available.
- Between 2002 and 2003, there was a noticeable reduction in the consumption of pharmaceuticals related to the Genitourinary system and sex hormones (G) as well as Sex hormones and modulators of the genital system (G03). This was due to falls in prescriptions for estrogens, progestogens and combinations. This may reflect broader public concerns surrounding hormone-replacement therapy which were prominent from 2003.
- The drug Colchicine (Antigout preparations) was listed on the pharmaceutical benefits scheme (PBS) at the end of 2010. The increase in consumption in 2011 of drugs for M-Musculo-skeletal system likely reflects this new listing.

Austria

Source: Dachverband der Sozialversicherungsträger (Vertragspartner Medikamente) / Federation of Social Insurances (Department of Pharmaceutical Affairs).
Methodology: The classification used is the current version of the WHO ATC-DDD Classification, adapted for the Austrian pharmaceutical market ("Erstattungskodex").
Coverage:
- Data cover only drugs reimbursed by the sickness funds within the statutory health insurance.
- Drug consumption in hospitals is excluded.
- Hospital ambulances are only included if they have prescription authorisation for the outpatient sector.
- DDDs per 1000 inhabitants are DDD per 1000 insured persons within the statutory health insurance (i.e. per 1000 eligible persons).
- "Daily/per day" refers to the 360th part of the yearly dose, meaning every month is considered to be 30 days.

Deviation from the definition:
- Data for pharmaceuticals with a price below the prescription charge are only included for prescriptions with prescription charge exemptions.
- Data series have been fully revised for all years, and combined substances are only partially included before 2019.

Notes:
- Since 2017, data provided cover all products dispensed and paid for by the Austrian health insurance funds which have an active ingredient for which a WHO-DDD exists, including products not listed in the Code of reimbursement.
- A02B-Drugs for peptic ulcer & gastro-oesophageal reflux diseases, GORD and C08-Calcium channel blockers: In 2015, price reductions were achieved (e.g. for Pantoprazole and Amlodipine). The price decreases came into full effect in 2015/2016, which explains the drop in pharmaceutical expenditure in these two areas. Price decreases in many cases additionally meant that prices dropped below the fixed co-payment rate for

Austrian medicines (2016 Rezeptgebühr: € 5.70). Consequently, these costs are in some cases not registered anymore as pharmaceutical expenditure by the social insurance (because they are now privately paid for), except in cases where patients are exempt from co-payments.
Further information: www.sozialversicherung.at (in German).

Belgium

Source: Pharmanet (RIZIV).
Methodology:
- Data are gathered and DDDs calculated according to the 2025 ATC classification.
- Data are given as the number of DDDs per 1000 inhabitants per day, which is calculated as follows: Number of DDDs x 1000 / Total population / 365.
Consumption data do not include drugs dispensed in hospitals, non-reimbursed drugs nor OTC drugs.
- Data are not available for the categories A02A-Antacids, N05B-Anxiolytics and N05C-Hypnotics and sedatives as they are not reimbursed in Belgium.
Break in series in 2008: This source covers medication reimbursed by the Belgian Sickness-Invalid insurance and available in public pharmacies. Hospital medication, non-reimbursable medication and medication given to persons not covered by the reimbursement system are not included (mostly independent professions until 2007). After January 2008, self-employed people are also covered by the data. It induces a time series break in 2008 (estimated to be responsible for an increase of the volume around 5.4 %).
Break in series in 2005: Classes **G and G03** (sexual hormones) show an important decrease in 2005, following temporary non-reimbursement of a large number of contraceptives.
Note: The increase in consumption of medications in the group B-Blood and blood forming organs in 2009 is due to the fact that acetylsalicylic acid in cardiovascular prevention (B01AC06) was made reimbursable from 2009 onwards and thus registered in the Pharmanet system.
Further information: http://www.inami.fgov.be/drug/fr/statistics-scientific-information/index.htm#1 and http://www.health.gov.bc.ca/pharmacare/pharmanet/netindex.html.

Canada

Source: Canadian Institute for Health Information (CIHI), National Prescription Drug Utilization Information System (NPDUIS) Database.
Coverage:
- Data up until 2015 are from drug claims in a community-based setting accepted by provincial public drug programs, either for reimbursement or toward a deductible. Starting in 2016, data also include claims that are processed for documentation under a drug information system, including those that were not accepted by or submitted to the public drug program.
Only data from British Columbia, Manitoba and Saskatchewan, provinces for which population level data were available, were included.
- Due to the design of public drug programs in Canada (i.e. seniors and low-income families/individuals are the only populations covered in all jurisdictions), data on drug consumption for non-seniors (with the exception of British Columbia, Saskatchewan and Manitoba where coverage is available to people of all ages) are limited.
- Data on pharmaceutical consumption do not include drugs for patients covered by provincial workers' compensation boards or federal drug programs as they are not eligible for coverage under provincial public drug programs. Federal drug programs include those delivered by the Correctional Service of Canada, Veterans Affairs Canada, and Health Canada - First Nations and Inuit Health Branch (except for the First Nations and Inuit population who resides in Ontario).
- Claims data do not indicate if the drugs were actually used, only that they were dispensed and the related claim was accepted for coverage.
- Data do not include information regarding:
    - Prescriptions that were written but never dispensed;
    - Prescriptions that were dispensed but for which the associated drug costs were not submitted to, or not accepted by, a participating public drug program;
    - Diagnoses or conditions for which prescriptions were written.

Data do not include drugs dispensed in hospitals and do not include non-reimbursed prescriptions. Generally, claims for OTC drugs are not reimbursed, but OTC drugs are not excluded explicitly.
- Data are not complete for the Antacids category (A02A) and therefore are not shown. Most antacids are purchased over the counter and typically not reimbursed in Canada.
Methodology:
Data for all years are based on the ATC/DDD Index 2024.

- 2024 data are provisional estimates.
- Data are reported as the number of DDDs/1000 population/day in British Columbia, Manitoba and Saskatchewan. Before 2016, population excludes the First Nations and Inuit population of these three provinces eligible to receive benefits through Health Canada's drug program.
- Claims were excluded where products did not have an assigned DDD or the quantity claimed could not be determined.
Break in time series in 2016: 2007 to 2015 data include drug claims in a community-based setting accepted by provincial public drug programs, either for reimbursement or toward a deductible from provinces for which population level data were available, (i.e. British Columbia, Manitoba and Saskatchewan). Starting in 2016, data also include claims that were processed for documentation under a drug information system, including those that were not accepted by or submitted to the public drug program (i.e. all claims, both public and private, in those three provinces).
Further information: National Prescription Drug Utilization Information System (NPDUIS), https://www.cihi.ca/en/national-prescription-drug-utilization-information-system-database-metadata.

Chile

Sources: The data used for the estimation of consumption of drugs in Chile come from the following sources:
- **"Public Market" Database**. Those data include all the purchases made by the public sector through the **Central de Abastecimiento (CENABAST)**, institution in charge of making all the purchases for the different segments that depend on the State such as Hospitals, Municipalities, Armed Forces, Services of Health and other public entities.
Methodology: Each observation (row) in this database contains information regarding the quantity and price agreed between the purchasing public entities and the supplying laboratory. Since those data are based on 12 or more months of planned purchases of medications, which are not necessarily distributed in the same way as yearly consumption, it was necessary to adjust the data by redistributing it annually.
- Database **"Private Market" (IQVIA)**. These data include purchases of medicines dispensed in private pharmacies; therefore, the number of sales units are counted as purchases made by households directly in private pharmacies. The data may have strong variations in consumption from one year to another, but since this source is reported directly as the purchasing behaviour of people, such variations will be understood as real market behaviour.
- Projected population series 1992-2050 estimated by the Instituto Nacional de Estadísticas (INE).
Coverage: Data include medicines bought by people in the private market and medicines bought by public institutions.
Methodology:
- Data follow the ATC 2025 codes and DDD values.
- The population used to calculate DDDs per 1000 inhabitants per day corresponds to the population considered as adult for the use of medications (people aged 15 years or older).
Notes: The series of public market data between 2011 and 2014 represent purchases made at free demand by the aforementioned institutions, which best represent the consumption of medicine by the public sector. Starting in 2015, purchases begin to have a new structure in which Cenabast makes a large annual purchase for each institution, and then only a few small ones during the year if necessary. Considering this information, the consumptions series is calculated with redistributed data of purchases.

Colombia

Data not available.

Costa Rica

Source: Caja Costarricense de Seguro Social (National Social Insurance Fund).
Coverage:
- Data include only drugs bought and prescribed at the public health facilities of the Social Insurance.
- Data include drugs dispensed in hospitals.
- Data include non-reimbursed drugs. Note that public hospitals and clinics do not reimburse drugs purchased in private facilities.
- Data do not include OTC drugs, but only drugs provided in public facilities prior to a medical prescription.
Break in time series in 2007: From 2001 to 2006 data were prepared based on the medicine dispatches from the central warehouse to the local pharmacies of healthcare centres; from 2007 to 2020 data were elaborated based on the medicine dispatches from the local pharmacies directly to the patients.

Czechia

Source: State Institute for Drug Control.
Methodology:
Data as from 2010 compiled according to the current national adaptation of the ATC Index (ATC index valid in 2024); data up until 2009 according to the ATC index valid in 2012.
- Data express the volume of medication distributed.
- Data include drugs dispensed in hospitals, non-reimbursed drugs and OTC drugs.
- Data not available before 1985 for Agents acting on the Renin-Angiotensin system (C09) as this group of pharmaceuticals was registered in 1984 only.
- The data on pharmaceutical consumption (all pharmaceuticals included) are not coherent with data reported for pharmaceutical sales since 2020 (as only pharmaceuticals reimbursed by public health insurance are included).
Further information: http://www.sukl.cz.

Denmark

Source: The Danish Health Data Authority.
Coverage:
- Data include all sales of medicines in Denmark up until 2021.
2022, 2023 and 2024 data do not include sales of OTC medicines from shops outside of pharmacies, for selected categories of drugs only (identified with a D).
- Data cover the primary sector and hospitals for all categories.
Methodology:
- Data follow the ATC 2025.
- The figures are based on the requested groups, according to the Anatomic Therapeutic Chemical Classification (ATC)/Defined Daily Dose (DDD). Drugs with a national DDD are also included when available.
Break in time series in 2022 for N07B - Drugs used in addictive disorders: Nicotine (ATC code N07BA01) is the most sold drug in the N07B category, and is mainly sold from shops outside pharmacies, however drugs sold from shops outside pharmacies are not included in the data reported from 2022 onwards, hence the break in the series in 2022.
Further information: http://www.medstat.dk/en.

Estonia

Source: State Agency of Medicines.
Coverage:
- Data represent sales from the wholesalers to general and hospital pharmacies and to other institutions.
- Data include OTC drugs, reimbursed drugs, non-reimbursed drugs and drugs dispensed in hospitals (i.e., the total drug consumption in Estonia).
- The total population is used to calculate DDDs for all ATC groups.
Methodology:
- Data for all time series according to national adaptation of the ATC Index.
- Data are expressed in DDD per 1000 inhabitants per day, which is calculated as follows: total consumption measured in DDDx1000/number of inhabitants/365.
- Data are collected quarterly from all drug wholesalers in Estonia.
Break in time series in 2006: 2006-2024 data are reported according to the latest ATC classification (20255 ATC Index). Data for 1999-2005 are presented according to the 2005 ATC Index.
Deviation from calculation method: For some active ingredients such as combined oral preparations, "national" DDDs are used. These national DDDs are based on the WHO list of DDDs for combined products, but all preparations that are given DDDs might not be in the WHO list.
Further information: http://www.ravimiamet.ee/en/statistics-medicines. Also see https://statistika.tai.ee/pxweb/en/Andmebaas/Andmebaas__06Ravimistatistika/.

Finland

Source: FIMEA Finnish Medicines Agency, Kuopio/Helsinki.
Methodology:
- Data are based on the most recent ATC codes.
- Data are given as the number of DDDs per 1000 inhabitants per day, which is calculated as follows: Total consumption measured in DDD (Number of inhabitants)/1000 /365.

- The figures show the drug sales expressed as numbers of DDD/1000 inhabitants/day (not only adults).
Coverage:
- Sales from wholesaler to retail pharmacy and hospitals.
- Data are based on wholesale of pharmaceuticals, and they include non-reimbursed medicines and medicines sold over the counter.

France

Source: Agence nationale de sécurité du médicament et des produits de santé (ANSM) and EPIPHARE.
Coverage:
- Data cover the primary sector and hospitals, and include non-reimbursed drugs and OTC for all categories.
- Data include all sales of medicines in France.
- The total population is used to calculate DDDs for all ATC groups.
Data for drugs referring to the ATC category *B-Blood and blood forming organs* include only the categories *B01- Antithrombotic agents*, *B02-Antihemmoragics* and *B03-Antianemic preparations*.
Methodology:
The figures are based on the requested groups, according to the Anatomic Therapeutic Chemical Classification (ATC)/Defined Daily Dose (DDD). Data follow the ATC 2024 from 2010 onwards.
Break in time series in 2010:
- Data for 2010-2023 are reported according to the 2024 ATC Index. Data up until 2009 are presented according to the 2010 ATC Index.
Since 2010, data for the category *A10-Drugs used in diabetes* refer to the ATC categories *A10A-Insulines and analoques* and *A10B-Blood glucose lowering drugs*.
Break in time series in 1999: Up until 1998, data for drugs used in diabetes refer to the ATC category *A10B-Blood glucose lowering drugs, excluding insulin*, and refer to the category *A10-Drugs used in diabetes* from 1999 to 2010 (see above).
Further information:
- *Les ventes de médicaments aux officines et aux hôpitaux en France*, Chiffres-clés 2009, 6ème édition, Afssaps, October 2010.
- *Analyse des ventes de médicaments aux officines et aux hôpitaux, 1999-2009*, 11ème édition, Afssaps, July 2011.
https://archiveansm.integra.fr/var/ansm_site/storage/original/application/6949f3707b826ada566544613ee8dafe.pdf.

Germany

Source: AOK Research Institute (WIdO), German Drug Index; special evaluation by the AOK Research Institute (WIdO).
Methodology:
- Classification: Current version of the WHO's ATC classification with DDDs (January 2025) and additional classifications of specific drugs for the German drug market by the AOK Research Institute (WIdO) for the German Drug Index (Fricke U, Günther J, Niepraschk-von Dollen K, Zawinell A (2024): *Anatomisch-therapeutisch-chemische Klassifikation mit Tagesdosen für den deutschen Arzneimittelmarkt*.).
DDD per 1000 insured persons in the German Statutory Health Insurance per day (instead of DDD per 1000 inhabitants per day).
Coverage:
- Prescriptions of drugs covered by German Statutory Health Insurance, starting from 1991 including East Germany. The database is a sample which is projected on the total expenditure for drugs of the official statistics (KV45).
Data contain exclusively the drug consumption debited to the statutory health insurance (i.e. drugs reimbursed by German Statutory Health Insurance). Data on the drug consumption in hospitals as well as data on prescriptions for privately insured persons and over-the-counter drugs are not available; these can therefore not be considered.
Data cover only the ambulatory sector.
- DDD of the ATC code G03 decreased in the year 2020 due to a change in classification of contraceptives in the German market.
- DDD for the ATC code C10AA increased in the 2009 WHO ATC classification, leading to changes in data for the ATC groups C-Cardiovascular system and C10-Lipid modifying agents.
- As the WHO introduced a new ATC level N02BF Gabapentinoids in 2023, there were alterations in three ATC-codes (from N02BG11 to N02BF03, from N03AX12 to N02BF01, from N03AX16 to N02BF02).

Break in series in 2018: Following a significant change in account assignment in the official expenditure statistics, the data now additionally include a portion of prescriptions from hospital pharmacies.
Break in series in 2004: With the Health Care Modernisation Act (GMG), non-prescription drugs have been largely excluded from reimbursement. Therefore, the market basket of goods of 2004 differs from that of previous years.
Further information: http://www.wido.de (in German).

Greece

2013-2015 and 2017 onwards:
Source: Pharmaceutical Department of the National Organization for Health Care Services Provision (EOPYY).
Coverage:
- Data include prescribed drugs dispensed to outpatients covered by EOPYY. EOPYY covers almost 95% of the total population in Greece.
Data do not include in-hospitals drugs, non-reimbursed drugs and OTC drugs.
- A02A-Antacids: Data not available, as those drugs are not prescribed and EOPYY only provides data on prescribed drugs.
- For 2013-2015 and 2017 onwards, data also include pharmaceuticals dispensed via EOPYY pharmacies. However, they do not include HIV drugs, growth factors and anti-bleeding factors as these drugs are dispensed via public hospitals pharmacies.
Methodology:
- The decrease observed in the consumption of antibiotics from 2020 is due to the introduction of Law 4675/11.03.2020 (Government Gazette 54 /A) article 18, that made mandatory the administration of antibiotics **only with a medical prescription**. In addition, the COVID-19 pandemic may have led to a shift in antibiotics use within hospitals and reduced use in the community.
Data for 2024 based on the ATC 2023 version. Data for 2022-2023 based on the ATC 2022 version. Data for 2021 are based on the ATC 2021 version. Data for 2017-2020 are based on the ATC 2019 version. Data for 2013, 2014 and 2015 are based on the ATC 2015 version.
- The formula used for the estimates is the following: **DDDs/1,000 inhabitants/day= $\Sigma^{k}_{j=1} Y_{ij}$ / (365x Population)**
When: Number of DDDs sold per medicinal product package ≡ Number of DDDs sold$_i$ =AHD$_i$ x N$_i$ = **Y$_i$**
AHD$_i$= number of DDDs per package per i barcode i=1,2,3…..6,560
Ni=the volume of sold packages per barcode i
k=1,2……the volume of packages in an ATC code (ATC or ATC 2 or ATC 3)
- The populationrefers to the Greek population Census of 2011.
Break in time series in 2013 due to a change of source and methodology.

1990-2004:
Source: Institute of Pharmaceuticals Research and Technology - IFET (subsidiary of National Organisation for Medecines).
Coverage: Data include drugs dispensed in hospitals, non-reimbursed drugs and OTC drugs.
1990-2003 data are based on the ATC 2003 version. 2004 data are based on the ATC 2004 version.

Hungary

From 2007 onwards:
Sources:
From 2017 onwards: **National Institute of Health Insurance Fund Management** (NEAK, in Hungarian).
2007-2016: **Hungarian National Health Insurance Fund** (OEP, in Hungarian).
Methodology:
- Data are expressed in DDD per 1000 inhabitants per day.
- Pharmaceutical preparations are given their ATC classification by the National Institute of Pharmacy and Nutrition during the registration process, based on the ATC Index currently available on the WHO's webpage.
- A02A-Antacids and N05C-Hypnotics and sedatives: Data from 2008 onwards reflect the fact that the Hungarian National Health Insurance Fund (OEP, in Hungarian) offers no or minimal subsidies for those ATC codes as of 2008, thus both the consumption and the sale data are null or close to 0 in those ATC codes.
Coverage:
- Data include only pharmaceutical consumption subsidised by social health insurance in pharmacies, and do not include pharmaceutical consumption in pharmacies not subsidised by social health insurance nor in hospitals.

- From 2007: Data do not include drugs dispensed in hospitals, do not include non-reimbursed drugs and do not include OTC drugs.

Up to 2006:
Source: PharmMIS Index review of the Hungarian pharmaceutical market Yearbook.
Coverage:
- Data include all pharmaceutical consumption in pharmacies and hospitals (subsidised and not subsidised by social health insurance), expressed in DDD per 1000 inhabitants per day.

Iceland

Sources:
From 2011 onwards: **The Directorate of Health:** Prescription Medicines Register.
Before 2011: **Icelandic Medicines Agency**.
Methodology:
- DDD are not comparable between years due to changes in definition.
As of 2011, data extracted from the Icelandic Prescription Medicines Register.
Data as of 2007 are based on the requested groups, according to the version of the ATC/DDD classification of each year. Data for previous years are not updated with newer versions of the ATC.
Break in time series in 2011:
From 2011 onwards, data cover all prescription medicines, reimbursed and non-reimbursed, dispensed by pharmacies and by dispensing services. Data cover individuals in private residences as well as residents in nursing homes and residential care facilities. Data exclude medicines dispensed in hospitals.
Before 2011, data include medicines dispensed in hospitals and non-reimbursed medicines, as well as OTC drugs (in volume).
Break in time series in 1989: Data before 1989 are not corrected for changes in DDD definitions. Data as of 1989 are corrected for changes in DDD and are presented according to definitions in the 2006 ATC.
- Decrease in data for Lipid modifying agents from 2008 to 2011 as Health Authorities in Iceland have been working systematically on decreasing the expenditure on Lipid modifying agents by a change in the reimbursement.

Ireland

Data not available.

Israel

Source: Analysis of the data was performed by the **NLHS (National List of Health Services) Assessment Division, Medical Technology and Infrastructure Administration in the Ministry of Health**.
Coverage:
- Data are based on annual reports on pharmaceutical consumption from HMOs (Health Maintenance Organisations) to the Ministry of Health:
- 2014-2024 data are based on reports from all 4 HMOs in Israel (Clalit, Maccabi, Meuhedet and Leumit).
- 2012 data are based on reports from 3 HMOs (Maccabi, Meuhedet and Leumit; half (47.5%) of the population have health insurance through those HMOs. The data do not include consumption from the 4th HMO (Clalit).
- The annual reports are required by law and submitted biannually.
Consumption data do not include drugs dispensed in hospitals, non-reimbursed prescriptions and OTC drugs.
Methodology:
Data are based on the ATC Index 2013 (for 2012 data), ATC Index 2014 (for 2014 and 2015 data), ATC Index 2015 (for 2016 data), ATC index 2016 (for 2017-2021 data), and the ATC index 2022 (for 2022, 2023 and 2024 data).
Reference period: January 1st-December 31st 2012, January 1st-December 31st 2014, January 1st-December 31st 2015, January 1st-December 31st 2016, January 1st-December 31st 2017, January 1st-December 31st 2018, January 1st-December 31st 2019, January 1st-December 31st 2020, January 1st-December 31st 2021, January 1st-December 31st 2022, January 1st-December 31st 2023, January 1st-December 31st 2024.
Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West bank under the terms of international law.

Italy

Source: AIFA (Agenzia Italiana del Farmaco) **-** Italian Medicines Agency, "The Use of Pharmaceuticals in Italy", National Report 2011-2023, and AIFA internal database. Data for 2024 are estimated from internal databases, while the consolidated data have not yet been published.
Coverage:
- Data include drugs dispensed in hospitals.
- Data do not include non-reimbursed drugs and OTC products.
Methodology: Data are indicated in DDDs according to the 2023 Anatomic Therapeutic Chemical Classification (ATC).

Japan

Data available only for **Antibacterials for systemic use** (J01).
Sources:
2013 onwards:
- **Ministry of Health, Labour and Welfare**, National Database of health insurance claims, and specific health checkups of Japan (2013 to 2020).
- **Japan Surveillance of Antimicrobial Consumption, AMR Clinical Reference Center, National Center for Global Health and Medicine Hospital**. Available at http://amrcrc.ncgm.go.jp/surveillance/010/20181128172333.html (https://www.e-stat.go.jp/en/stat-search/files?page=1&toukei=00450011&tstat=000001028897). Accessed January 31, 2025.
2011-2012:
- **Ministry of Health, Labour and Welfare**, National Database of health insurance claims, and specific health checkups of Japan (2011 to 2012).
- Yamasaki D, Tanabe M, Muraki Y, Kato G, Ohmagari N, Yagi T. *The first report of Japanese antimicrobial use measured by national database based on health insurance claims data (2011-2013): comparison with sales data, and trend analysis stratified by antimicrobial category and age group*. Infection. 2017. DOI: 10.1007/s15010-017-1097-x.
Coverage:
- Since antibacterials are not available over-the-counter in Japan, all antibacterials were prescribed by physicians at medical institutions and reimbursed using an electronic claim system. And all residents are required to be enrolled in health insurance. Therefore, the data should include all antibacterial consumption.
- Data exclude non-electronic claim data (approximately 2% of claim data).
- Data exclude claims data from patients with fully publicly-funded healthcare (e.g., patients with intractable diseases, atomic bomb survivors, patients on welfare, patients with tuberculosis, and patients with human immunodeficiency virus infections), as well as patients who personally pay for all of their medical expenses (e.g., international travelers and cosmetic surgery patients).
2011-2012: The database excludes antibacterials prescribed in dental departments in hospitals and in dental clinics.
Methodology:
- The National Database of health insurance claims and specific health checkups of Japan (NDB) is the database of all electronic claims data constructed by the Ministry of Health, Labour and Welfare (MHLW), and encompasses approximately five billion health insurance claims as of June 2020.
- In 2011, MHLW opened this database to researchers, central and local governments for research and health policy discussion.
- Data on total systemic antibacterial (J01) prescription at the hospital, clinic, dental clinic and pharmacy through health insurance (medical, dental and pharmaceutical claims) in 2013 and 2020 were extracted from the NDB.
- Data on total systemic antibacterial prescription at the hospital, clinic, and pharmacy through health insurance (medical and pharmaceutical claims) in 2011, 2012, and 2013 were extracted from the NDB.
- Data for the entire J category are not available.
- 2013 to 2020: The DDD about J01 is according to data published on January 1, 2022.
- 2011-2012: Due to the calculated values at the time the references paper were created, DDD is according to data published on January 1, 2017.

Korea

Sources:
From 2011: **Ministry of Health and Welfare**, **Health Insurance Review & Assessment Service**, Administrative data from National Health Insurance, Medical Aid, Veterans Benefits, Industrial Accident and

Occupational Disease Insurance, and Auto Insurance and Supply data from wholesalers to retail pharmacy, hospitals and other retailers.
Until 2010: **Ministry of Health and Welfare**, *Survey on the Sales and Consumption of Pharmaceuticals in Korea*.
Coverage: Data encompass all pharmaceutical products supplied in Korea.
Methodology:
From 2014, data are based on the following year's version of the ATC classification (i.e. 2023 data based on the 2024 ATC Classification, 2022 data based on the 2023 ATC Classification, 2021 data based on the 2022 ATC classification, 2020 data based on the 2021 ATC classification, 2019 data based on the 2020 ATC classification, 2018 data based on the 2019 ATC classification, 2017 data based on the 2018 ATC classification, etc.). 2011-2013 data based on the 2014 ATC classification. 2010 data based on the 2013 ATC classification. 2009 data based on the 2009 ATC classification, and 2008 data based on the 2008 ATC classification.
From 2016:
- Overall reimbursed drugs consumption is added up by using the current year's administrative data.
- Non-reimbursed drugs consumption is added up by using the current year's supply data.
2011-2015:
- Overall reimbursed drugs consumption is added up by using the last 3 years of administrative data.
- Non-reimbursed drugs consumption was estimated by using the last 3 years of supply data.
- Non-reimbursed drugs were estimated using data mining (random forest) model by algorithm based on reimbursed drugs.
From 2011:
- Overall reimbursed drugs consumption is added up by using administrative data from National Health Insurance, Medical Aid, Veterans Benefits, Industrial Accident and Occupational Disease Insurance, and Auto Insurance.
- Non-reimbursed drugs consumption was estimated by using the data on pharmaceutical supply provided by wholesalers to retail pharmacy, hospitals and other retailers
Until 2010:
- Pharmaceutical consumption data in Korea are collected either through National Health Insurance or through other sources. Data compiled by National Health Insurance (including Medical Aids and Veterans benefits) cover the whole reimbursed consumption. Data from other sources, such as non-payment items and OTC, are collected and estimated by sampling analysis (from survey of medical institutions and pharmacies).
- Data include drugs dispensed in hospitals, non-reimbursed drugs and OTC drugs.
Note: The consumption of *B-Blood and blood forming organs* increased by 148% in 2023 compared to 2022. This appears to be mainly due to the newly assigned DDD for hydroxocobalamin, a substance that previously had no DDD value, which significantly increased the calculated consumption. Hydroxocobalamin is used for the prevention and treatment of various conditions related to vitamin B12 deficiency. As of 2023, there were 25 hydroxocobalamin products distributed in Korea, of which only 5 were classified as reimbursable medicines. Additionally, the large number of non-reimbursed products is also likely to have contributed significantly to the high calculated consumption.
Breaks in time series in 2011 and 2016 due to a change in source and methodology.

Latvia

Source: State Agency of Medicines.
Coverage: Only consumption of authorised medicines is included. Consumption of unauthorised medicines is roughly about 1% of the total market of medicines.
Methodology:
- Data are collected and compiled from all licensed wholesalers. Only WHO-approved DDDs for non-combined products are used for the calculation of consumption in DDDs/1000 inhabitants/day.
- Antiinfectives for systemic use (J), Antibacterials for systemic use (J01): Data (from 2018 including unauthorised medicines) come from ESAC-Net data submitted to TESSy, The European Surveillance System. Data extracted via https://qap.ecdc.europa.eu/public/extensions/AMC2_Dashboard/AMC2_Dashboard.html, #national-country-tab. Trend of the consumption in the community and hospital sector in Latvia from 2002 onwards.
Data for 2024 are based on ATC classification 2025. Data for 2022-2023 are based on the ATC classification 2024. Data for 2021 are based on the ATC 2022. Data for the period 2015-2020 are reported according to the ATC classification 2021. Data for the period 2012-2014 are based on the ATC 2014.

Lithuania

Source: State Medicines Control Agency of Lithuania database.
Methodology:
- Medicines consumption is calculated using monthly wholesales data on medicines packages.
- Data are expressed in DDD per inhabitant per day.
- Data follow the ATC classification (the annual version is used for each year).
Coverage:
- Data include drugs dispensed in hospitals.
- Data include non-reimbursed drugs.
- Data include OTC drugs.
Further information: The statistics on medicines are published on the Agency's website at https://vvkt.lrv.lt/lt/specialistams/.

Luxembourg

Source: Caisse nationale de santé (CNS).
Statistical extraction: General Inspectorate of Social Security (IGSS).
Coverage:
The data provided refer only to the **insured resident population** (annual average number) covered by the public health insurance regime (i.e. the insured resident population) and not to the total resident population. Information on the insured resident population is given under the chapter Health Care Coverage (http://stats.oecd.org/wbos/fileview2.aspx?IDFile=802d696a-7de9-408f-ae49-fcaae24f90ea).
Methodology:
Data for 2015-2024 follow the ATC 2023. Data for 2013-2014 follow the ATC 2017. Data for 2012 follow the ATC 2016. Data for 2010-2011 follow the ATC 2014. Data for the period 1995-2010 follow the ATC 2013.
- 2023-2024 data are preliminary.
Data based on medication reimbursed by health insurance, not including hospital consumption up until 2021 or OTC drugs.
- Data may be under-estimated due to the lack of information for all sub-groups at the third level of the ATC classification.
Break in time series in 2021: Data on medication reimbursed by health insurance include since 2021 pharmaceuticals delivered in hospitals for outpatient consumption ("médicaments à délivrance hospitalière"). "*Le ministère de la santé prend la décision concernant le mode de délivrance d'un médicament qui est propre à une autorisation de mise sur le marché. Le mode de délivrance se justifie par les caractéristiques pharmacologiques et le degré du médicament ou par un autre motif de santé publique. La délivrance, réservée aux pharmacies hospitalières, peut être faite à des patients ne séjournant pas en milieu hospitalier.*"

Mexico

Data not available.

Netherlands

Source: GIP (Drug Information System of the Health Care Insurance Board). The GIP is an information system of the Health Care Insurance Board, in use since 1988, containing information on (external) expenditure on drugs in the Netherlands and the degree to which they are used.
Coverage:
- OTC drugs are not included. The register includes prescription-related data on drugs that are:
    - prescribed by general practitioners and specialists
    - dispensed by pharmacists, dispensing general practitioners and other outlets
    - reimbursed under the Health Care Insurance Act.
Medications given in hospitals are not included.
Methodology:
- Data are given as the number of DDDs per 1000 inhabitants per day, which is calculated as follows: Number of DDD's x 1000 / Total (yearly average) population / 365 (or 366 in case of a leap year).
The 2023 ATC index has been used for 2019-2023 data. For 2018 data: ATC 2022. For 2017 data: ATC 2021; for 2016 data: ATC 2020; for 2015 data: ATC 2019; for 2014 data: ATC 2018; for 2013 data: ATC 2017; for 2012 data: ATC 2016; for 2011 data: ATC 2015; for 2010 data: ATC 2014; for 2008-2009 data: ATC 2012; for 2007 data: ATC 2011; for 2006 data: ATC 2010; for 2003-2005 data: ATC 2008; and for 2001-2002 data: ATC 2005.

- The GIP database of 2012 contains data from 25 of the 27 health insurance organisations. The sample of insured persons is around 16.1 million persons (almost 97% of the entire Dutch population).
- Data for the last 4 years are updated if new numbers were available in the GIP database. The GIP database only contains data for the last 5 years.
- Data from 2001 are rounded to one decimal place after the comma, consistent with early deliveries, to avoid false accuracy.

Breaks in time series:

N-Nervous system and N02-Analgetics: the decrease in 2019 is due to a decrease in the reimbursement of paracetamol. N05B-Anxiolytics and N05C-Hypnotics and sedatives: the decrease in 2009 is explained by the fact that these pharmaceuticals are no longer reimbursed by the compulsory healthcare insurance as of 2009, and thus have to be covered by OOP or by private insurance.

G-Genito urinary system and sex hormones and G03-Sex hormones and modulators of the genital system: the increase in 2008 and the decrease in 2011 are explained by large fluctuations due to the renewed reimbursement of the contraception pill.

The decrease in the consumption of A-Alimentary tract, A02A-Antacids, G-Genito-urinary system and sex hormones and G03-Sex hormones and modulators of the genital system can be explained by the fact that from 2004 onwards, several over-the-counter medicines have been exempt from compensation by the health insurance fund and exempt from compensation by most of the private insurance as well.

- The DDD used is valid in the most recent year available. This DDD is applied to the preceding years (from 2008). Data from 2008 onwards are comparable. Data before 2008 are sometimes not comparable to those after 2007 due to possible changes in DDDs.

New Zealand

Source: PHARMAC - Pharmaceutical management agency. Data provided from the **Pharmhouse database**.

Methodology:

- From 2022 an updated ATC-DDD classification table has been purchased from https://www.whocc.no/atc_ddd_index_and_guidelines/order/, providing the necessary reference information in terms of the defined daily dose, unit of measure and the route of administration.
- The New Zealand Universal List of Medicines (https://info.nzulm.org.nz/) provides a mapping of pharmacodes (https://www.pgnz.org.nz/about-us-1/pharmacode) to WHO ATC, which can be viewed online at https://search.nzulm.org.nz/nzmt/showatchierarchy.
- Using these two data sources enabled the mapping of pharmaceuticals to the WHO ATC 5 level and then make some assumptions on the route of administration.
- Units provided as part of the pharmaceutical collection (https://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/collections/pharmaceutical-collection) have then been converted to the amount of active ingredient consistent with the WHO ATC/DDD index.
-The amount of active ingredient recorded for combination products is generally not available, initial estimates therefore exclude most combination products.
- Data are estimates as further work to refine and test the methods used is ongoing.
- Data are expressed in DDDs according to this procedure: the units measured in the formulation were given a route of administration and then compared to the units measured by the DDD and one side was multiplied accordingly so that the formulation strength and the DDD were both measured in the same units (i.e., mg). The total units dispensed for each formulation was multiplied by the formulation strength and divided by the DDD then by 365 then by population as at 30 June each year and multiplied by 1000.
- Note that the total pharmaceutical sales data provided are for all mapped pharmaceuticals and not just those consumption data are available for.

Norway

Source: Norwegian Drug Wholesale statistics database, The Norwegian Institute of Public Health (Department of Drug Statistics).

Coverage:

- Total sales from wholesalers to retail pharmacies, hospitals and outlets selling a selection of OTC products (e.g. grocery stores).
- Data thus include drugs dispensed in hospitals, non-reimbursed drugs and OTC-drugs.
- Data include both drugs with and without marketing authorisation.
- There is no consumption of drugs classified A10X in Norway.
- All the numbers in ATC group C and C03 are changed due to an alteration of the DDD for C03DA01 spironolactone.

Methodology:
- Data for all years follow the ATC version January 2025.
- Sales given in DDD/1000 inhabitants/day are included for selected ATC groups.
Further information: Norwegian Wholesales Statistics at https://www.fhi.no/en/hn/drug/om-den-grossistbaserte-legemiddelforbruksstatistikken/.

Poland

Sources: Ministry of Health, administered by the e-Health Centre. Medical Information System.
Coverage:
- Data according to the national version of ATC provided by the public organisation responsible for public drug registry.
- The data source is aggregated data collected through Prescription Fulfillment Documents reported to the Medical Information System by all generally available pharmacies and pharmacy points in the country.
- Additionally, to identify the ATC codes of individual products, the current status of the Register of Medicinal Products kept by the Office for Registration of Medicinal and Biocidal Products was used.
- Information on the DDD value per drug packaging was also used, based on information provided by the Department of Drug Policy and Pharmacy of the Ministry of Health.
Data do not include drugs dispensed in hospitals, do not include non-reimbursed drugs, and do not include OTC drugs.
Methodology: The list includes reimbursed and fully paid turnover of products that have ever been reimbursed. It includes the following information about products:
a) Those included in the reimbursement announcements, because only for them specific DDD values per packaging are available; the full-price realisations of these products are also included.
b) With an ATC code because not all products in the Register of medical entities (RPL) have such information completed (though the vast majority do).

Portugal

Source: Ministry of Health - National Authority of Medicines and Health Products (INFARMED).
Coverage:
- Data represent the total ambulatory market for mainland Portugal.
Data do not include hospital consumption.
- Data include both reimbursed and non-reimbursed products.
- Data include OTC products sold in pharmacies but do not include OTCs sold outside of pharmacies in authorised establishments.
Methodology:
- Data follow the ATC Index 2025.
- Data refer to pharmaceutical utilisation by DDD per 1000 inhabitants, by ATC group, calculated as follows: Total utilisation measured in DDD x 1000 / Number of inhabitants / 365.
Note: The population figures have been updated. As a result, all years undergo changes, regardless of whether DDD/ATC has remained unchanged.

Slovak Republic

Sources:
From 2016 onwards: **National Health Information Center (NCZI)**.
Coverage:
- Data include drugs dispensed in hospitals (and in hospital ambulances), reimbursed and non-reimbursed drugs and OTC drugs.
- Data include only those products where a WHO-DDD is available.
- Individual substances and special imports of drugs are excluded.
Methodology:
Data for 2023 follow the 2025 version of ATC classification, data for 2022 follow the 2024 version of ATC classification, data for 2021 follow the 2023 version of the ATC classification, data for 2020 follow the 2022 ATC, data for 2019 follow the 2021 ATC, data for 2018 follow the 2020 ATC, data for 2017 follow the 2019 ATC, data for 2016 follow the 2018 ATC.
- The Slovak Republic uses the prophylactic DDD value of 0.4 for folic acid (ATC code B03BB01), as opposed to the therapeutic DDD value of 10. As a result, Slovak data for the consumption of "B-Blood and blood forming organs" are comparatively large.

Break in time series in 2016 due to a change of data source. Since 2016, the new data source gathers quarterly statistical reports from public and hospital pharmacies and health insurance companies, which represents the real consumption by end-customers.
- Information on consumption is also available in electronic form in a NCZI software.
Note: The observed increase in consumption of the A10- Drugs used in diabetes group in 2023 can be attributed to the expanded use of A10 medications in cardiological and nephrological indications, as evidenced by findings from a relevant clinical study.
For further information: www.nczisk.sk.

Up until 2015: **MCR, limited company**, Modra, Slovak Republic.
Coverage: Data include drugs dispensed in hospitals, reimbursed and non-reimbursed drugs and OTC drugs.
Methodology:
Data for 2015 follow the 2016 version of the ATC classification, data for 2014 follow the ATC 2015, data for 2013 follow the ATC 2014, data for other years follow the ATC 2013.
- Information on drug consumption as a system of drug acquisition and processing comes from reports of wholesale distribution organisations. Following Act no. 140/1998 Coll., they provide information to the "State Institute for Drug Control" (Štátnyústav pre kontroluliečiv, ŠÚKL) regarding the amounts of drugs sold to the population.
- Information on consumption is also available in printed and electronic form (database on cumulative quarterly data, in a software released by MCR, s.r.o. Modra).

Slovenia

Source: Health Insurance Institute of Slovenia, Database on Out-patient prescribing of drugs in Slovenia.
Coverage:
- Data include all medicines with a valid prescription under compulsory health insurance, irrespective of reimbursement.
- Data are required for all outpatient prescriptions issued.
- Data cover all drugs prescribed with a valid prescription, regardless of reimbursement.
Data do not include drugs dispensed in hospitals but do include those prescribed to hospital patients upon discharge, to be collected at a community pharmacy. The data also encompass drugs dispensed in long-term care facilities (LTCFs).
Methodology: Data are based on the ATC Index 2023 for all years (2006-2023).

Spain

Source: Ministerio de Sanidad (Ministry of Health), Directorate General for NHS Common Services Portfolio and Pharmacy.
Coverage:
- Since 2018, data refer both to:
    - Consumption of official medical prescriptions receipts issued by the National Health System and dispensed in community pharmacies. Data exclude non-reimbursed drugs, OTC drugs and private medical prescriptions.
    - Hospital consumption, for hospitals belonging to the public network of the National Health System. Data coverage is total, for in-patients and out-patients.

Until 2018 data are obtained from official medical prescriptions receipts issued by the National Health System and dispensed in pharmacies. Data exclude non-reimbursed drugs, OTC drugs, private medical prescriptions and drugs used in hospitals.
- In the N02 subgroup, the DDDs for 2022 and 2023 have been updated following the new DDDs for different fixed combinations of opioids with non-opioid analgesics (N02AJ06, N02AJ07, N02AJ08 and N02AJ14), already included in the ATC/DDD 2024 classification.
- In the R03 subgroup, the DDDs for 2017 have been updated, following the modifications in the 2019 DDDs in subgroup R03DA12.
- Data after 2012 are not available for the subgroup A02A-Antacids since these drugs were excluded from public reimbursement in September 2012.
- There are subgroups in the ATC classification without any assigned DDD: the consumption of these medicinal products is not included in the corresponding defined daily dosage. This is the case for A12CX, B03AD, B05, G04, C05, J07, M01CX, and N01B, and some combinations of R06A.
- 2011 data for the C10 subgroup have incorporated the modification of the Omega-3-triglycerides, DDD 2000 mg.

- 2010 data for the A10 subgroup have incorporated the modification of the Glicazide DDD, 160 mg to 60 mg, established by the WHO.
- Methodology change for the subgroup C03-Diuretics: the DDD for hydrochlorothiazide and amiloride combination has been modified from 2 to 1 U.D.
- In the C10 subgroup, the DDDs for 2008 have been updated, following the modifications in the 2009 DDDs for statins.
- In the R03 subgroup, the DDDs have been modified from 2006, because WHO established DDDs for fixed dose drug combinations in subgroup R03AK07 which have been considered.

Methodology:

2022 and 2023 data according to the ATC/DDD 2024 classification; 2021 data according to the ATC/DDD 2023 classification; 2020data according to the ATC/DDD 2022 classification, 2019 data according to the ATC/DDD 2021 classification, 2018 data according to the ATC/DDD 2020 classification, 2017 data according to the ATC/DDD 2019 classification, 2016 data according to the ATC/DDD 2018 classification, 2015 data according to the ATC/DDD 2017 classification, 2014 data according to the ATC/DDD 2016 classification, 2013 data according to the ATC 2015 classification, 2012 data according the ATC 2014 classification, 2011 data according to the ATC 2013 classification, 2010 data according to the ATC 2011 classification, 2009 data according to the ATC 2010 classification. For data from 2004 to 2008, the ATC version employed for each year is that of the year following the corresponding information.

Break in time series in 2018: Hospital consumption data are included for the first time in 2018.

Break in time series in 2014: Prescription invoices data from special health insurance schemes such as the General Mutual Civil Servants (MUFACE), the Social Institute of the Armed Forces (ISFAS) and the General Mutual Judicial (MUGEJU) are included for the first time in 2014.

Sweden

Source: The Swedish eHealth Agency (E-hälsomyndigheten), Kalmar, Sweden.

Coverage:
- Total sales from pharmacies to patients and hospitals.
- Data include drugs dispensed in hospitals and non-reimbursed drugs, as well as OTC drugs (both from pharmacies and from other retailers).

Methodology:
- Data updated from 2000 onwards according to the ATC 2025.
- The figures show the drug sales expressed as number of DDD/1000 inhabitants/day (not only adults), which are updated according to the annual version of the ATC Index from the WHO Collaborating Centre, Oslo.
- The DDD statistics comprise all approved drugs sold to hospitals, prescribed to the public and sold over-the-counter.

Main Group B-Blood and blood forming organs:
- Sweden only used national DDDs for B05 until the year 2004. The implication on the consumption of "B-Blood and blood forming organs" is minimal since consumption of B05 is very low relative to B as a whole.
- Sweden uses the prophylactic DDD value of 0.4 for folic acid (ATC code B03BB01), as opposed to the therapeutic DDD value of 10. As a result, Sweden's values for the consumption of "B-Blood and blood forming organs" are comparatively large.

Further information: http://www.ehalsomyndigheten.se/Om-oss-/Uppdrag-och-verksamhet/Other-languages1/Swedish-eHealth-Agency/. Information on the re-regulation of the Swedish pharmacy market is available at the Medical Products Agency website at http://www.lakemedelsverket.se/english/overview/About-MPA/pharmacy-market/.

Switzerland

Data not available. There is no source concerning consumption of pharmaceuticals, and data from health surveys do not enable the calculation of DDDs for pharmaceutical consumption.

Türkiye

Source: Ministry of Health, Turkish Medicines and Medical Devices Agency.

Coverage: Data include drugs dispensed in pharmacies and non-reimbursed drugs.

Methodology:

Data follow the 2023 ATC/DDD index.
- Data were gathered via IMS Health (now IQVIA), Intercontinental Medical Statistics for 2008-2012. Since 2013, Pharmaceutical Track & Trace System has been used for the data collection.

- The Pharmaceutical Track & Trace System is the adaptation of the well-known Track & Trace System into the pharmaceutical industry. This system enables to define the locations of the products in the supply and distribution chain. It is possible with the help of the electronic product code to track each transaction of the drugs in the supply chain beginning from the production or importation. Accordingly, with the help of DataMatrix printed on the drug packages, it is possible to report the incoming and outgoing of the products, so that the last location, time and status of the product can be saved and stored in a live data source.
Further information: https://itsportal.saglik.gov.tr/index.php?run=home.

United Kingdom

Sources:
England: Data calculated by **NHS Business Services Authority (NHSBSA** using data for England captured during prescription processing, or gathered from consultation activity for **NHS Community Pharmacy Advanced Services** (Pharmacy First Urgent Medicines Service, Contraception Service, Hypertension Case Finding Service, Flu Vaccination Service, Covid Vaccination Service).
Please note that Advanced Service data have not been processed in the same way as prescription data, so totals for this element of the data are estimated based on the data available. For context, in 2023 95% of DDDs reported were derived from FP10 prescription data, 4.3% from hospital prescribing dispensed in the community, and 0.7% from Advanced Service activity.
Scotland: Data calculated by **Information Services Division, NHS National Services Scotland** () using data from **Prescribing Information System (PIS)**.
Northern Ireland: Prescription information is taken from the pharmaceutical payment system, supplied by the **Business Services Organisation (BSO)**.
Wales: **NHS Wales Informatics Service**.
Coverage:
Data do not cover drugs dispensed in hospitals, including mental health trusts or private prescriptions, only those drugs dispensed in the community, or (for England only), medicines supplied under the Community Pharmacy Advanced Services listed above.
- Data only include those prescription items or medicines supplied under Advanced Services that have been submitted for reimbursement. If prescriptions were not submitted for dispensing or if the medicines were given to the patients by a route other than prescriptions (e.g. homecare or in hospital), they would not be included.
- Prescribers are GPs, hospital doctors, dentists and non-medical prescribers such as nurses and pharmacists.
Northern Ireland:
- Data are based on a full analysis of all prescriptions dispensed in the community, i.e. by community pharmacists and appliance contractors, dispensing doctors, and prescriptions submitted by prescribing doctors for items personally administered in Northern Ireland. Also included are prescriptions written in Wales, Scotland, England and the Isle of Man but dispensed in Northern Ireland.
- Northern Ireland only report on generic volume in terms of items, not DDDs.
Breaks in time series in 2013 and 2023: Data for England only until 2012; data for the United Kingdom from 2013 -2022.Data for England only in 2023.
Methodology:
- The United Kingdom does not classify DDDs according to the Anatomic Therapeutic Chemical (ATC) classifications and instead uses the British National Formulary (BNF classification). Therefore BNF drug groups have been approximately mapped to ATC classifications, and each group may not strictly contain the same drugs. No information on why a drug is prescribed is available. Since drugs can be prescribed to treat more than one condition, it is impossible to separate the different conditions for which a drug was prescribed.
- Prescription items: prescriptions are written on a prescription form, and each single item written on the form is counted as a prescription item.
- Net Ingredient Cost (NIC): the NIC is the basic cost of a drug. It does not take account discounts, dispensing costs, fees or prescription charges income.
- All data are for calendar year.
England:
- Prescription information is supplied by Prescription Information Services, a division of the NHS Business Services Authority (BSA), and is based on a full analysis of all prescriptions dispensed in the community, i.e. by community pharmacists and appliance contractors, dispensing doctors, and prescriptions submitted by prescribing doctors for items personally administered in England, and medicines supplied under Community Pharmacy Advanced Services.
- Also included are prescriptions written in Wales, Scotland, Northern Ireland and the Isle of Man but dispensed in England.

- Data available in DDDs cover 81.6% of prescription items and 64.3% of Net Ingredient Cost in 2023 (these figures apply to prescribed medicines only, and do not include Advanced Services activity).
Scotland:
- Prescription Information is taken from the Prescribing Information System (PIS) supplied by Practitioner and Counter Fraud Services, NHS National Services Scotland and is based on a full analysis of all prescriptions dispensed in the community, i.e. by community pharmacists, appliance contractors, and dispensing doctors.
- Also included are prescriptions written in England, Wales and Northern Ireland but dispensed in Scotland.
Northern Ireland:
- Prescription information is taken from the pharmaceutical payment system, supplied by the Business Services Organisation (BSO), and is based on a full analysis of all prescriptions dispensed in the community i.e. by community pharmacists and appliance contractors, dispensing doctors, and prescriptions submitted by prescribing doctors for items personally administered in Northern Ireland.
- Also included are prescriptions written in Wales, Scotland, England and the Isle of Man but dispensed in Northern Ireland.
The data do not cover drugs dispensed in hospitals, including mental health trusts, or private prescriptions.
- Northern Ireland does not classify drugs by ATC but rather uses the British National Formulary (BNF).
Up until 2017: Data on **Antiinfectives for systemic use (J)** and **Antibacterials for systemic use (J01)** for the **community (primary care sector) and hospital sector** come from the **European Surveillance of Antimicrobial Consumption Network (ESAC-Net) Database** ©European Union, 1997-2020. Data last extracted 2 June 2022 via https://ecdc.europa.eu/en/antimicrobial-consumption/database/trend-countryhttps://ecdc.europa.eu/en/antimicrobial-consumption/database/trend-country.

United States

Data not available.

NON-OECD ECONOMIES

Argentina

Data not available.

Bulgaria

Source: Data on **Antiinfectives for systemic use (J)** and **Antibacterials for systemic use (J01)** for the **community (primary care sector) and hospital sector** come from the **European Surveillance of Antimicrobial Consumption Network (ESAC-Net) Database** © European Centre for Disease Prevention and Control (ECDC) 2025. Data extracted in June 2025 via https://www.ecdc.europa.eu/en/antimicrobial-consumption/surveillance-and-disease-data/database.
Coverage:
- Total care includes data from both the hospital sector and the community (primary care sector) and overestimates the figures when used for reporting for the community sector.
- Some countries report reimbursement data that do not include consumption of antimicrobials obtained without prescription and other non-reimbursed courses.
- For more information please see the report "Data source overview of antimicrobial consumption (https://www.ecdc.europa.eu/en/antimicrobial-consumption/database/data-source-overview)".

Croatia

Source: HALMED, Croatian Agency for Medicinal Products and Medical Devices.
Coverage: Data include drugs dispensed in hospitals, non-reimbursed drugs, as well as OTC drugs.
Methodology:
- Total data are collected from pharmacies, hospital pharmacies and specialised drugstores.
- The obtained data can be displayed in the WHO ATC classification system.
- Significant variations have occurred due to changes in the defined daily doses for specific medicinal products in certain years.
Further information: https://www.halmed.hr/Novosti-i-edukacije/Publikacije-i-izvjesca/Izvjesca-o-potrosnji-lijekova/Izvjesce-o-potrosnji-lijekova-u-Republici-Hrvatskoj-u-2023/.

Data on **Antiinfectives for systemic use (J)** and **Antibacterials for systemic use (J01)** for the **community (primary care sector) and hospital sector**

Source: European Surveillance of Antimicrobial Consumption Network (ESAC-Net) Database © European Centre for Disease Prevention and Control (ECDC) 2025. © European Centre for Disease Prevention and Control (ECDC) 2025. Data extracted in June 2025 via https://www.ecdc.europa.eu/en/antimicrobial-consumption/surveillance-and-disease-data/database.

Coverage:

- Total care includes data from both the hospital sector and the community (primary care sector) and overestimates the figures when used for reporting for the community sector.
- Some countries report reimbursement data that do not include consumption of antimicrobials obtained without prescription and other non-reimbursed courses.
- For more information please see the report "Data source overview of antimicrobial consumption (https://www.ecdc.europa.eu/en/antimicrobial-consumption/database/data-source-overview)".

Peru

Source: Integrated System of Supply of Pharmaceutical Products, Medical Devices and Sanitary Products (SISMED) Database. This database contains information on monthly consumption of pharmaceutical products from 100% of the Ministry of Health and regional government establishments.

Open data accessed through:

- **ESSALUD Pharmaceutical Product Consumption Report** in Excel
- **SUSALUD-TEDEF Pharmacy Database**
- **Close-Up International Database**
- **Norwegian Institute of Public Health ATC/DDD Index 2025 Web Application**

Coverage:

- Public health establishments belonging to the Ministry of Health, Social Security, private establishments. Data do not include data from police and armed forces' health establishments:
  - Ministry of Health and Regional Governments at the national level: this includes information to 100% of health facilities (8,599) that include health posts, health centers, hospitals, and specialised institutes. Affiliate coverage approx. 73.8%. Year 2024.
  - ESSALUD: consumption of 100% of all its networks nationwide. Affiliate coverage approx. 21.5%. Year 2024.
    - Pharmacies and pharmacies in the private sector retail: includes information at the national level (first place in search of health care with 41.2%, and first place in the purchase of medicines (out-of-pocket expenditure on medicines) approximately 91%. Year 2024.
    - It does not include information from the Armed Forces, Police Forces or private clinics. Affiliate coverage approx. 4.8%.
- Data include drugs dispensed in public hospitals (MINSA, Gores and Essalud).
- Data cover 100% of the products consumed, not distinguishing between reimbursed drugs or not.
- Data include OTC drugs. Only medicines and biologics are included in this analysis, including OTC. Vaccines, medical gases, galenics, natural, homeopathic, dietetic products, milks, cosmetics or medical devices are not included.

Methodology:

- Information recorded from 1 January to 31 December 2024 is considered.
- Steps for calculation:

Step 1: Considering that each subsector has a differentiated coding for its products, a comparison is made between the product codes of SISMED, the ESSALUD Excel file, the SUSALUD database, and the CLOSEUP database.

Step 2: The ATC (5th level) is identified in each database for each product. The ATC was identified according to ATC 2024 (https://atcddd.fhi.no/atc_ddd_index/?code=L01&showdescription=no).

Step 3: The TEDEF PHARMACY-SUSALUD database has the sanitary registration of pharmaceutical products identified. With this variable, a link is made with the DIGEMID sanitary registration database to identify the ATCs of each product and select the molecules of each of the ATCs prioritised by the OECD.

Step 4: The CLOSEUP database uses the Anatomical Classification of Pharmaceutical Products developed and maintained by the European Pharmaceutical Market Research Association (EPHMRA). A match is made with the names of the required ATC groups. The CLOSEUP database is used to identify the medications corresponding to the required ATCs.

Step 5: The SISMED database has the ATC identification as an attribute. For the EsSalud database, the ATC assignment is done individually.

Step 6: For each product of the ATCs prioritised by the OECD, the DDD is identified, which is obtained from the ATC/DDD web application.
Step 7: In each database, the medications corresponding to the prioritised ATCs are filtered.
Step 8: For each filtered medication, the DDD is identified and recorded.
Step 9: For each database, the total content of each medication is calculated and converted to the same units of measurement as the DDD, to proceed to calculate the number of DDDs consumed. Subsequently, the number of DDDs is multiplied by 1000, and divided by 365 and by the estimated Peruvian population for 2024.
Step 10: The DDD/1000 inhabitants/day of the molecules belonging to a determined ATC from the different databases are added and the results of each of the ATC groups prioritised by the OECD are presented.
Further information:
- SISMED Database: https://app.powerbi.com/view?r=eyJrIjoiN2FhNzI5MzYtZTcyOS00ZWM3LTllN2ItZTBmYWY3Y2ZmM2EzIiwidCI6IjExMzgxOTYwLWVkYWMtNGRkNC1hZTQ0LWViZGRmNGE3OTVjYyJ9.
- SUSALUD TEDEF Database: http://datos.susalud.gob.pe/dataset/cppart5tedefiafas-2024/resource/d69338e1-3cc2-4a92-8b57-8beb933fa379.
- ATC/DDD Index: https://atcddd.fhi.no/atc_ddd_index/.

Romania

Data on **Antiinfectives for systemic use (J)** and **Antibacterials for systemic use (J01)** for the **community (primary care sector) and hospital sector**
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Coverage:
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- For more information please see the report "Data source overview of antimicrobial consumption" (https://www.ecdc.europa.eu/en/antimicrobial-consumption/database/data-source-overview).