

## Pharmacists

### Definitions

Updated: September 2021

<p>Practising pharmacists</p> <p>(ISCO-08 code: 2262)</p>	<p><b>Practising pharmacists</b> prepare, dispense or sell medicaments and drugs for patients and provide advice.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"><li>- Practising pharmacists who have completed studies in pharmacy at university level (granted by adequate diploma) and who are licensed to practice</li><li>- Salaried and self-employed pharmacists delivering services irrespectively of the place of service provision</li><li>- Pharmacists working in hospitals</li><li>- Foreign pharmacists licensed to practice pharmacy and actively practising in the country</li></ul> <p><b>Exclusion</b></p> <ul style="list-style-type: none"><li>- Students who have not yet graduated</li><li>- Pharmacists working in administration, research and in other posts that exclude direct contact with the patients</li><li>- Pharmacists working in the pharmaceutical industry</li><li>- Unemployed pharmacists and retired pharmacists</li><li>- Pharmacists working abroad</li></ul> <p><b>Note:</b> The number should be at the end of the calendar year.</p>
<p>Professionally active pharmacists</p>	<p><b>Professionally active pharmacists</b> are practising pharmacists and other pharmacists for whom their education in pharmacy is a prerequisite for the execution of the job.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"><li>- Pharmacists who provide services for patients</li><li>- Pharmacists working in administration and management positions requiring a pharmacy education</li><li>- Pharmacists conducting research, testing drugs to determine identity, purity and strength</li><li>- Pharmacists participating in development of controls and regulations</li><li>- Pharmacists preparing scientific papers and reports</li></ul> <p><b>Exclusion</b></p> <ul style="list-style-type: none"><li>- Pharmacists who hold a post/job for which pharmacy education is not required</li><li>- Unemployed pharmacists and retired pharmacists</li><li>- Pharmacists working abroad</li></ul> <p><b>Note:</b> The number should be at the end of the calendar year.</p>
<p>Pharmacists licensed to practice</p>	<p><b>Pharmacists licensed to practice</b> include practising and other (non-practising) pharmacists who are registered and entitled to practice.</p> <p><b>Inclusion</b></p> <ul style="list-style-type: none"><li>- Pharmacists who provide services for patients</li><li>- Pharmacists for whom their pharmacy education is a prerequisite for the execution of the job</li><li>- Pharmacists for whom their pharmacy education is NOT a prerequisite for the</li></ul>

	<p><b>execution of the job</b></p> <ul style="list-style-type: none"> <li>- Pharmacists licensed to practice but who are not economically active (e.g. unemployed or retired)</li> <li>- Pharmacists working abroad</li> </ul> <p><b>Note: The number should be at the end of the calendar year.</b></p>
Pharmacists at regional level	<b>Practising pharmacists</b> at regional (NUTS2) level according to the place (region) where the health care service is provided.
<p>This data collection was discontinued in 2017 (reference year 2015)</p>	

In the context of comparing health care services across Member States, Eurostat gives preference to the concept 'practising', as it best describes the availability of health care resources. The detailed definitions are available in [CIRCABC](#).

The data refer to 31<sup>st</sup> of December (unless otherwise indicated).

## Country specific notes

[Belgium](#), [Bulgaria](#), [Czechia](#), [Denmark](#), [Germany](#), [Estonia](#), [Ireland](#), [Greece](#), [Spain](#), [France](#), [Croatia](#), [Italy](#), [Cyprus](#), [Latvia](#), [Lithuania](#), [Luxembourg](#), [Hungary](#), [Malta](#), [Netherlands](#), [Austria](#), [Poland](#), [Portugal](#), [Romania](#), [Slovenia](#), [Slovakia](#), [Finland](#), [Sweden](#), [Iceland](#), [Liechtenstein](#), [Norway](#), [Switzerland](#), [Montenegro](#), [North Macedonia](#), [Albania](#), [Serbia](#), [Turkey](#), [United Kingdom](#)

## Belgium

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Institut National d'Assurance Maladie Invalidité.**

Break in time series: Since 2009, data on practising pharmacists exclude pharmacists aged 65 years old and over.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Source of data: **SPF Santé publique, sécurité de la chaîne alimentaire et de l'environnement, DG2 Soins de Santé primaires et gestion de crises - FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu DG2 Basisgezondheidszorg en Crisisbeheer. Cellule Planification des professionnels de santé - Cel planning Gezondheidsberoepen. Base de données fédérale des professionnels de soins de santé - Federale databank van de beoefenaars van de gezondheidszorgberoepen.**

Reference period: 31<sup>st</sup> December.

Coverage: Complete.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: CTI – INAMI

Reference period: 31<sup>st</sup> December

Break in time series: Since 2009, data on practising pharmacists exclude pharmacists aged 65 years old and over

## Bulgaria

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Ministry of Health.**

Reference period: 31<sup>st</sup> December.

Coverage: All pharmacists who worked in outpatient and inpatient facilities as well as those who worked in health administration and research institutions. Pharmacists working in pharmacies outside the health establishments are not covered.

Up to 1999 administrative sources were used. In 2000 this data collection was excluded from the National Statistical Program.

Source of data: From 2018, **Bulgarian Pharmaceutical Association, Register**

Reference period: 31<sup>st</sup> December.

Coverage: All pharmacists who worked in pharmacies are included.

### **Professionally active pharmacists**

Source of data: **Bulgarian Pharmaceutical Association, Register.**

Reference period: 31<sup>st</sup> December.

Coverage: According to the national legislation all pharmacists who are professionally active in Bulgaria have to be included in the Register at the Bulgarian Pharmaceutical Association.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Ministry of Health

Reference period: 31st December

Coverage: All pharmacists who worked in outpatient and inpatient facilities as well as those who worked in health administration and research institutions.

## **Czechia**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data:

- Till to 2013: **Institute of Health Information and Statistics of the Czech Republic**; Registry of Physicians, Dentists and Pharmacists.

- Since 2014, **Institute of Health Information and Statistics of the Czech Republic**; National Health Information System (Annual report on health personnel).

Reference period: 31<sup>st</sup> December.

Coverage:

- Until 1999, pharmacists working in other central organs not included. Since the year 2000, data cover pharmacists in all health services.

- In 2014, complete data are not available. Estimate is calculated from available data for 2014 and data from 2013.

- Double counting of pharmacists working in more than one health or social establishment.

Break in time series: 2000, 2014.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Institute of Health Information and Statistics of the Czech Republic. Registry of Physicians, Dentists and Pharmacists.

In 2014, Institute of Health Information and Statistics of the Czech Republic; National Health Information System (Annual report on health personnel).

Reference period: 31<sup>st</sup> December.

Coverage:

- Concept used: Practising pharmacists.

- In 2014, complete data are not available. Estimate is calculated from available data for 2014 and data from 2013.

- Double counting of caring personnel working in more than one health or social establishment.

Break in the series: 2000.

## Denmark

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **The Danish Health Authority**, Labour Register for Health Personnel.

Reference period: 31<sup>st</sup> December.

### **Professionally active pharmacists**

Source of data: **The Danish Health Authority**, Labour Register for Health Personnel.

Reference period: 31<sup>st</sup> December.

### **Pharmacists licensed to practice**

Source of data: **The Danish Health Authority**, Labour Register for Health Personnel.

Reference period: 31<sup>st</sup> December.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: The Danish Health Authority, Labour Register for Health Personnel

Reference period: 31st December

## Germany

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Federal Union of German Associations of Pharmacists**, Pharmacy and staff statistics;  
<http://www.abda.de> or <http://www.gbe-bund.de>.

Reference period: 31<sup>st</sup> December.

Coverage:

- The number of practising pharmacists includes pharmacists working in a public or hospital pharmacy (head-count data).
- The data exclude qualified pharmacists who are working abroad, working in administration, research and industry positions, unemployed and retired pharmacists and students who have not yet graduated.

### **Professionally active pharmacists**

Source of data: **Federal Union of German Associations of Pharmacists**, Pharmacy and staff statistics;  
<http://www.abda.de> or <http://www.gbe-bund.de>.

Reference period: 31<sup>st</sup> December.

Coverage:

- Included are practising pharmacists working in a public or hospital pharmacy and pharmacists working in administration, research and industry positions (head-count data).
- The data exclude pharmacists working abroad, unemployed and retired pharmacists and students

who have not yet graduated.

### **Pharmacists licensed to practice**

Source of data: **Federal Union of German Associations of Pharmacists**, Pharmacy and staff statistics; <http://www.abda.de> or <http://www.gbe-bund.de>.

Reference period: 31<sup>st</sup> December.

Coverage:

- Included are all practising and non-practising **Pharmacists licensed to practice** (head-count data).
- Included are practising pharmacists working in a public or hospital pharmacy, pharmacists working in administration, research and industry positions, pharmacists working abroad and unemployed and retired pharmacists (head-count data).
- The number of registered pharmacists excludes students who have not yet graduated.
- Data available from 2006 onwards.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Federal Union of German Associations of Pharmacists, Pharmacy and staff statistics; <http://www.gbe-bund.de> or <http://www.abda.de>.

Reference period: 31<sup>st</sup> December

Coverage:

- The number of practising pharmacists includes pharmacists working in a public or hospital pharmacy (head-count data).
- The data exclude qualified pharmacists who are working abroad, working in administration, research and industry positions, unemployed and retired pharmacists and students who have not yet graduated.

## **Estonia**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data:

- Employees in hospital pharmacies. - Annual reports from health care providers, **National Institute for Health Development**, Department of Health Statistics.
- Employees in general pharmacies. - **Agency of Medicines**, monthly reports of pharmacies.

Reference period:

- 1980-2012: 31<sup>st</sup> of December.
- Since 2013: November.

Coverage:

- The data refer to practising personnel in health care institutions and in pharmacies.
- In 2001, the collection of statistical reports in the Agency of Medicines moved from the Bureau of Drug Statistics into the Department of Pharmacy. From 1991 to 2002, there was no obligation for pharmacies to submit activity reports to the Agency of Medicines, and therefore not all pharmacies submitted their reports to the Agency. Therefore, when using data from the years 1996-2003, it should be considered that the numbers are slightly underestimated.
- Data for 2001 have been calculated as the 5-years' average, pharmacists working in pharmacies has been derived by subtracting the pharmacists working in health care institutions from the calculated number.

- Similarly, the data for 1998-2000 has been provided for those working in pharmacies.

Break in the series: 2004, 2013 and 2015.

- The data collection methodology of NIHD on health care personnel was changed in 2013.

Aggregated data collection was replaced with data collection on a personal basis. From 2013, the predominant (main) area of practice is based on an occupation with the highest workload.

- Since 2015, the Agency of Medicines changed the data-collection methodology on the employees in general pharmacies. Since 2015 the number of pharmacists in general pharmacies reflects only the total number of filled occupations and not the total number of persons. Therefore the number of practising pharmacists can be slightly overestimated.

Note: The data series for “Practising pharmacists” 2013-2015 was updated in 2018 after data revision.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Source of data: Registry of Pharmacists, **Health Care Board**.

Reference period: January of the following year.

Coverage:

- The number of licensed pharmacists covers overall potential, not persons by the last obtained speciality.

- Register of dispensing chemists and pharmacists was introduced in July 2005. Previously, only responsible pharmacists were registered at National Agency of Medicines, not all of them. The data for 2007 present the number of registered persons by end-year of the first year.

## **Ireland**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: Pharmaceutical Society of Ireland (PSI)

Coverage:

- Figures refer to all persons on the register of the Pharmaceutical Society of Ireland.

-Figures are estimated for 2019 are estimated using information extracted from the Pharmacists data base in 2020. In the context of renewing registration a pharmacist is required to declare whether or not s/he is practising in a patient facing role. This declaration is made if the pharmacist practises for any period in a patient facing role and therefore may not necessarily be the practitioners primary area of practice .

The definition used is as follows;

“A patient-facing role includes any pharmacist providing care directly to a patient and/or any pharmacist whose work has an impact on patient care, irrespective of setting or the number of hours of practice per week, month or year. Although not exhaustive, the following gives examples of roles which are considered as patient-facing:

Pharmacists working on a fulltime, occasional or casual basis in community pharmacy

Hospital Pharmacists working on a fulltime, occasional or casual basis

Superintendent Pharmacists

Supervising Pharmacists

Locum Pharmacists

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Source of data: **Pharmaceutical Society of Ireland.**

Reference period: 31<sup>st</sup> December.

Coverage:

- Figures refer to all persons on the register of the Pharmaceutical Society of Ireland. They may include some pharmacists not in activity.
- The following are included: pharmacists employed in community pharmacies, pharmacists employed in the pharmaceutical industry, pharmacists employed in medical research, pharmacists employed in firms or public bodies in exercise of their profession, pharmacists employed in public and private hospitals, foreign pharmacists registered in Ireland and some Irish pharmacists living/working abroad.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Pharmaceutical Society of Ireland

Reference period: 31<sup>st</sup> December

Deviation from the definition: Data refer to licensed to practice.

Coverage:

They may include some pharmacists not in activity. The following are included:

- pharmacists employed in community pharmacies,
- pharmacists employed in the pharmaceutical industry,
- pharmacists employed in medical research,
- pharmacists employed in firms or public bodies in exercise of their profession,
- pharmacists employed in public and private hospitals,
- foreign pharmacists registered in Ireland and some Irish pharmacists living/working abroad.

The difference between the total pharmacists and the total of the 2 regions refers to the number of pharmacists who, although registered in Ireland, have a registered address outside this jurisdiction. Numbers are based on correspondence address as selected by the registrant which may not necessarily be their region of practise.

## **Greece**

### **Practising pharmacists (ISCO-08 code: 2262)**

Data not available.

### **Professionally active pharmacists**

Source of data: **Hellenic Statistical Authority (EL.STAT.).**

Reference period: 31<sup>st</sup> December.

Coverage: Data refer to the number of all pharmacists. Hospital pharmacists are included.

### **Pharmacists licensed to practice**

Data not available.

## **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Data not available.

## **Spain**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **National Statistics Institute (INE). Labour Force Survey** (several issues).

[https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736176918&menu=ultiDatos&idp=1254735976595](https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=ultiDatos&idp=1254735976595).

Reference period: Annual average. Three-year moving averages (e.g. data reported in 1996 is an average of 1995-1997).

Coverage:

- From 1995 to 2010, the data include practising pharmacists (2224 ISCO-88 code). The data by occupation are classified according the National Occupations Classification (CNO-94 Spain, code 214), the Spanish equivalence of ISCO-88 code 2224.
- From 2011 onwards the data are classified according to CNO-11 Spain, code 214. The CNO-11 code 214 is the Spanish equivalence of ISCO-08 code 2262 (pharmacists).
- Although the replacement of the old classification CNO-94 (the Spanish equivalence of ISCO-88), which had been in force since 1995 until 2010, by the current Spanish Classification of Occupations CNO-11 (equivalence of ISCO-08) in the source of the data should not have any impact on data, in practice this fact may have influenced the gap between 2010 and 2011 of some occupations such as the pharmacists. Besides, series on 'practising' and 'professionally active' pharmacists are based on a source that provides fluctuating data from year-to-year (i.e the use of the Labour Force Survey) while the data on licensed to practice are based on a more stable registry from the Register of Pharmacists Council.
- The number of practising pharmacists was obtained by calculating the number of pharmacists employed in the health sector and dispensing medicaments/drugs in specialised stores according to NACE rev.2 (chapter Q + code 4773) since 2009, and similarly with NACE Rev.1 and NACE Rev.1.1 from 1995 to 2008.
- Data analysis over time should be carried out with caution. Data are obtained from a survey and fluctuations in the data can occur for a number of reasons, one of them being the sampling errors. These variations can lead to false assumptions about trends. We advise users of time series data to carefully explore the relevant issues before drawing any conclusions about the reasons for year-on-year changes.
- During the **first quarter of 2005** various changes have been introduced into the **Economically Active Population Survey**:

1. New variables have been included in accordance with Eurostat (Statistical Office of the European Communities) requirements, set forth in Regulation 2257/2003.
2. A centralised procedure has been implemented for the process of the telephone interviews.
3. With the goal of further standardising the survey process, the questions of the questionnaire have been reformulated.

Estimation method: In 2014, data series have been updated with Spanish population figures imported from Census 2011 and recalculated by using three-year moving averages in order to reduce the large year-to-year fluctuations in data derived from the LFS. The number reported in 1996 is an average of 1995-1997; the number for 2012 is an average of 2011-2013.

### **Professionally active pharmacists**

Source of data: **National Statistics Institute (INE). Labour Force Survey** (several issues).

[https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736176918&menu=ultiDatos&idp=1254735976595](https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176918&menu=ultiDatos&idp=1254735976595).

Reference period: Annual average. Three-year moving averages (e.g. data reported in 1996 is an average of 1995-1997).

Coverage:

- The data set for **Professionally active pharmacists** has been updated with better estimates in 2010. In this way, all the series follow the methodological definition. Before correction, some figures were in line with the definition of 'economically active professionals' whose values could include unemployed professionals.
- From 1995 to 2010 the data include **Professionally active pharmacists** (2224 ISCO-88 code). The data by occupation are classified according to the National Occupations Classification (CNO-94 Spain, code 214), the Spanish equivalence of ISCO-88 code 2224.
- From 2011 onwards the data are classified according to CNO-11 Spain, code 214. The CNO-11 code 214 is the Spanish equivalence of ISCO-08 code 2262 (pharmacists).
- Although the replacement of the old classification CNO-94 (the Spanish equivalence of ISCO-88), which had been in force since 1995 until 2010, by the current Spanish Classification of Occupations CNO-11 (equivalence of ISCO-08) in the source of the data should not have any impact on data, in practice this fact may have influenced the gap between 2010 and 2011 of some occupations such as the pharmacists. Besides, series on 'practising' and 'professionally active' pharmacists are based on a source that provides fluctuating data from year-to-year (i.e. the use of the Labour Force Survey) while the data on licensed to practice are based on a more stable registry from the Register of Pharmacists Council.
- The number of **Professionally active pharmacists** was obtained by calculating the number of pharmacists employed in health sector/specialised stores as well as in remaining sectors of NACE rev.2 since 2009, and similarly with NACE Rev.1 and NACE Rev1.1 from 1995 to 2008. Thus, the 'Professionally active' data correspond to pharmacists regardless of NACE sector where they are working.
- Data analysis over time should be carried out with caution. Data are obtained from a survey and fluctuations in the data can occur for a number of reasons, one of them being the sampling errors. These variations can lead to false assumptions about trends. We advise users of time series data to carefully explore the relevant issues before drawing any conclusions about the reasons for year-on-year changes.
- During the **first quarter of 2005** various changes have been introduced into the **Economically Active Population Survey**:

1. New variables have been included in accordance with Eurostat (Statistical Office of the European Communities) requirements, set forth in Regulation 2257/2003.
2. A centralised procedure has been implemented for the process of the telephone interviews.
3. With the goal of further standardising the survey process, the questions of the questionnaire have been reformulated.

Estimation method: In 2014, data series have been updated with Spanish population figures imported from Census 2011 and recalculated by using three-year moving averages in order to reduce the large year-to-year fluctuations in data derived from the LFS. The number reported in 1996 is an average of 1995-1997; the number for 2012 is an average of 2011-2013.

### **Pharmacists licensed to practice**

Source of data: **National Statistics Institute (INE)** from the **Register of Pharmacists Council**.

[https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736176781&menu=ultiDatos&idp=1254735573175](https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176781&menu=ultiDatos&idp=1254735573175).

Reference period: Data as of December 31<sup>st</sup>.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: National Statistics Institute from the Register of Pharmacists Council.

<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t15/p416&file=inebase&L=0>.

Reference period: data as of December 31

Deviation from the definition: Data refer to licensed to practice. They may include some pharmacists who are not economically active (unemployed, retired).

Estimation method: Data on practising pharmacists are not available for several regions because of high sampling errors in the Economically Active Population Survey.

## **France**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **ASIP- RPPS (Répertoire Partagé des Professionnels de Santé)**.

<http://esante.gouv.fr/espace-cps/editeurs/le-rpps>.

Reference period: 31<sup>st</sup> December.

Coverage:

- Subsections of pharmacists: A, DA, DM, EA, ED, EH, H, G, EG.
- Data concern pharmacists and assistant pharmacists working in pharmacies (excluding those working in pharmaceutical industry, managing directors or assistant directors of laboratories, pharmacist working in administration, research, etc.). Data also include biologists working in medical laboratories.
- Data include foreign Pharmacists licensed to practice and exclude pharmacists working abroad.
- Data refer to metropolitan France and D.O.M. (overseas departments).

### **Professionally active pharmacists**

Source of data:

- Up to 2009: **Ministère des Solidarités et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES)**, Sous-Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Professions de santé, Répertoire ADELI.

- Since 2010: **ASIP- RPPS (Répertoire Partagé des Professionnels de Santé)**. See at:

<http://esante.gouv.fr/espace-cps/editeurs/le-rpps>.

Reference period: 31<sup>st</sup> December.

Coverage:

- Data concern pharmacists in activity (including those working in a pharmacy or those working in pharmaceutical industry, administration, or research).
- All established pharmacists, assistant pharmacists and pharmaceutical assistants are included in figures.
- Data include foreign pharmacists licensed to practise and exclude pharmacists working abroad.
- Data refer to metropolitan France and D.O.M. (overseas departments).

Break in time series: In 2010, there is a break in the series due to the change in the data source (ADELI before 2010, RPPS since 2010).

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Ministère du Travail, des Relations sociales, de la Famille, de la Solidarité et de la Ville, Ministère de la Santé et des Sports, Ministère du Budget, des Comptes publics et de la Fonction publique, Direction de la Recherche, des Etudes, de l'Evaluation et des Statistiques. DREES. (Source: Répertoire ADELI), Sous Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Professions de santé.

Reference period: 31st December

Deviation from the definition: data refer to the concept "professionally active".

## **Croatia**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Croatian Institute of Public Health**, Health Manpower Register.

Coverage: Private pharmacists have been included since 1993.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Source of data: **Croatian Chamber of Pharmacists**.

Coverage: data as of December 31<sup>st</sup>.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source: Croatian Institute of Public Health, Health Manpower Register

Reference period: data on December 31

Coverage: public and private health sectors included, private physicians have been included since 1993.

## **Italy**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: ISTAT provides data provided by COGEAPS <http://wp.cogeaps.it/>.

Reference period: 31<sup>st</sup> December.

Estimation method: data on the "Continuing Medical Training program" have been used to estimate the practicing personnel. In Italy health professionals have to be recorded in the professional register to be licensed to practice and to acquire "training credits" while practicing. These credits are registered in the Continuing Training Education database. The estimate of practicing personnel was done by counting, among all registered professionals, those who acquired at least one credit in the last three years.

### **Professionally active pharmacists**

Source of data:

- Until 2012: **ISTAT, Labour Force Survey**. <http://www.istat.it/it/archivio/8263>.
- From 2013: **COGEAPS** <http://wp.cogeaps.it/> and **ISTAT, Labour Force Survey**. <http://www.istat.it/it/archivio/8263>.

Reference period: 31<sup>st</sup> December.

Estimation method:

- From 2013 onwards, the estimate is based on the number of practicing pharmacists (provided by COGEAPS) increased by a percentage of pharmacists who do not work in economic sectors related to drugs. This percentage is obtained from the labor force survey.
- Until 2012: Estimation from the sample survey. Data are affected by the statistical error due to the sample design.

Break in time series: 2013. Break in the time series is due to changing data source and calculation method.

### **Pharmacists licensed to practice**

Source of data: **ISTAT** provides data produced by **FOFI** (National Federation of pharmacists). [www.fofi.it](http://www.fofi.it).

Reference period: 31<sup>st</sup> December.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data:

1993-2012: **ISTAT - FOFI** (National Federation of pharmacists). [www.fofi.it](http://www.fofi.it).

2013-onwards: **ISTAT** provides data provided by **COGEAPS** <http://wp.cogeaps.it/>.

Estimation method: data on the “Continuing Medical Training program” have been used to estimate the practicing personnel. In Italy health professionals have to be recorded in the professional register to be licensed to practice and to acquire “training credits” while practicing. These credits are registered in the Continuing Training Education database. The estimate of practicing personnel was done by counting, among all registered professionals, those who acquired at least one credit in the last three years.

Reference period: 31<sup>st</sup> December

Deviation from the definition: data refer to licensed to practice from 1993 to 2012

## **Cyprus**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Statistical Service of Cyprus**, Public sector administrative sources.

Reference period: 31<sup>st</sup> December.

Coverage: Up to 2014, the numbers of practising pharmacists refer to personnel employed in the public sector only. From 2015 onwards, the figures refer to both public and private sectors.

Break in series: There is a break in series in 2015, since from 2015 onwards the figures refer to both public and private sectors (up to 2014 the figures refer to the personnel employed in the public sector only).

### **Professionally active pharmacists**

Data not available.

## **Pharmacists licensed to practice**

Data not available.

## **Latvia**

### **Practising pharmacists (ISCO-08 code: 2262)**

#### Source of data:

- Up to 2006 and 2009-2012: **State Agency of Medicines**, report "Summary on operation of pharmacies, medicine wholesales enterprises and medicines production enterprises".
- 2007-2008 and from 2013 onwards: Pharmacist and pharmacist assistant register, under direct jurisdiction of **Pharmacists' Society of Latvia**.

Reference period: 31<sup>st</sup> December.

Coverage: Persons who have graduated completed studies in pharmacology at university level and working in pharmacies or hospital pharmacies and its branches.

Break in time series: 2007, 2009, and 2013: Change in data source.

Note: As the registration is not compulsory for the pharmacists, the numbers may vary from year to year. This may explain the higher number of practising pharmacists in 2017.

### **Professionally active pharmacists**

#### Source of data:

- Up to 2006 and 2009-2012: **State Agency of Medicines**, report "Summary on operation of pharmacies, medicine wholesales enterprises and medicines production enterprises".
- 2007-2008 and from 2013 onwards: Pharmacist and pharmacist assistant register, under direct jurisdiction of **Pharmacists' Society of Latvia**.

Reference period: 31<sup>st</sup> December.

Coverage: Persons who have graduated completed studies in pharmacology at university level and who work in Pharmacies, medicine wholesales enterprises or in medicines production enterprises.

Break in time series: 2007, 2009, and 2013: Change in data source.

### **Pharmacists licensed to practice**

#### Source of data:

- Up to 2006 and 2009-2012: **State Agency of Medicines**, report "Summary on operation of pharmacies, medicine wholesales enterprises and medicines production enterprises".
- 2007-2008 and from 2013 onwards: Pharmacist and pharmacist assistant register, under direct jurisdiction of **Pharmacists' Society of Latvia**.

Reference period: 31<sup>st</sup> December.

#### Coverage:

- Persons who have graduated completed studies in pharmacology at university level and who work in Pharmacies, medicine wholesales enterprises, in medicines production enterprises or retired.
- From 2009: New normative acts were introduced, and compulsory registration is required only for pharmacists working in pharmacies. Therefore, not all graduated pharmacists received a license to practice.
- From 2014 – pharmacists registered in the register.

Break in time series:

- 2007, 2009, and 2013: Change in data source.

## Lithuania

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: Up to 2003 for data on pharmacists working in pharmacies and wholesale medicine supply enterprises - **State Medicines Control Agency**; for data on pharmacists working in health care institutions - **Health Information Centre of Institute of Hygiene**, data of entire annual survey of health establishments.

Since 2017: **Health Information Centre of Institute of Hygiene**. Data are calculated from the Compulsory Health Insurance Fund information system (subsystem METAS).

Reference period: 31<sup>st</sup> December.

Coverage: Up to 2003, the number of practicing pharmacists at the end of the year includes all **Professionally active pharmacists** excluding those working in administration, health education and research. Since 2017: the number of practicing pharmacists at the end of the year employed in pharmacies.

### **Professionally active pharmacists**

Source of data: Up to 2003 for data on pharmacists working in pharmacies and wholesale medicine supply enterprises - **State Medicines Control Agency**; for data on pharmacists working in health care institutions - **Health Information Centre of Institute of Hygiene**, data of entire annual survey of health establishments.

Reference period: 31<sup>st</sup> December.

Coverage: Up to 2003: The number of pharmacists at the end of the year includes all active pharmacists.

### **Pharmacists licensed to practice**

Source of data: Since 2004 **State Medicines Control Agency**, Register of licenses. Report "Health Statistics of Lithuania", available from <http://www.hi.lt/health-statistic-of-lithuania.html>.

Reference period: 31<sup>st</sup> December.

Break in series: 2007 - the new Law of Pharmacy demanded that administrators of pharmacies have pharmacist license, this increased the number of **Pharmacists licensed to practice**.

## Luxembourg

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Direction de la Santé**.

- Until 2005: Service des statistiques.

- 2005-2011: Division de la pharmacie et des médicaments.

- From 2012: Service des statistiques. Register of doctors and health professionals.

Reference period: 31<sup>st</sup> December.

Coverage:

- The data reported do not include pharmacists paid by hospital, making pharmaceuticals or those working abroad.

- Data includes self-employed pharmacists and pharmacies' employees, along with employees in clinical laboratories, retail sales of medications, and those working in administrations.

- Foreign pharmacists authorised to work in Luxembourg who work in the mentioned sectors are included.

- The series has been rectified back to 1993. It includes only pharmacists (salaried or self-employed) who have direct contact with patients. Foreign pharmacists who are permitted to practice in Luxembourg are also included.
  - Data should be considered with care due to methodological issues encountered during the census series concerning pharmacists and nurses.
  - A more precise methodology has not yet been finalised for data relating to pharmacists.
- Break in time series: 1993.

### **Professionally active pharmacists**

Source of data: **Direction de la Santé** – Service des statistiques until 2005; from 2005: Division de la pharmacie et des médicaments.

Reference period: 31<sup>st</sup> December.

Coverage: Data includes pharmacists working in community pharmacies, hospital pharmacies, community laboratories, wholesale, civil servants and other sectors.

### **Pharmacists licensed to practice**

Source of data: **Direction de la Santé** – Service des statistiques.

Reference period: 31<sup>st</sup> December.

## **Hungary**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data:

- Up to 2012: **Hungarian Central Statistical Office** (KSH in Hungarian) [www.ksh.hu](http://www.ksh.hu).
- From 2013 until 2014: **Office of Health Care Authorisation and Administrative Procedures** (EEKH in Hungarian) [www.eekh.hu](http://www.eekh.hu). Operational Register.
- From 2015 to 2016, **Health Registration and Training Center** (ENKK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Operational Register.
- From 2017, **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Operational register.

Coverage:

- Up to 2012: All pharmacists working in public pharmacies and hospital pharmacies are included, according to the latest qualification acquired.
- Since 2013: Pharmacists with a valid registration in the Operational Registry, which is the condition of the unsupervised healthcare activity.

Break in time series: 2013, 2015.

- In 2013 due to change of the data source.
- In 2015: In case of physicians, dentists and pharmacists there is a five-yearly cyclical decrease in the operational registration because of the expiry of the five yearly renewable operational license. In every fifth year (2000, 2005, 2010, 2015) there was a dropout in the case of those physicians, dentists and pharmacists, who did not request the renewal of their next five year cycle because they did not fulfill their mandatory further training, or they have been retired, or left to a foreign country, left the healthcare sector, or died.

### **Professionally active pharmacists**

Source of data:

- Up to 2012: **Hungarian Central Statistical Office** (KSH in Hungarian) on the basis of the data collection of the Ministry of Health.

- From 2013: Data not available.

Reference period: 31<sup>st</sup> December.

Coverage: According to the latest qualification acquired.

Break in time series: Break in 2007, when the Office of Health Authorization and Administrative Procedures took over the maintenance of registration from the Ministry of Health.

### **Pharmacists licensed to practice**

Source of data:

- Up to 2006: **Hungarian Chamber of Pharmacy** (MGYK in Hungarian) [www.mgyk.hu](http://www.mgyk.hu).

- From 2007 until 2014: **Office of Health Care Authorisation and Administrative Procedures** (EEKH in Hungarian) [www.eekh.hu](http://www.eekh.hu). Basic register.

- From 2015 to 2016, **Health Registration and Training Center** (ENKK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Basic register.

- From 2017, **National Healthcare Service Center** (ÁEEK in Hungarian) [www.enkk.hu](http://www.enkk.hu). Basic register.

Reference period: 31<sup>st</sup> December.

Coverage: According to the latest qualification acquired.

Break in time series: Break in 2007, when the Office of Health Authorization and Administrative Procedures took over the maintenance of registration from the Ministry of Health. A significant decrease in numbers is a consequence of cleaning of the database at the take-over time.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data:

- Up to 2006: Hungarian Chamber of Pharmacy (MGYK in Hungarian) [www.mgyk.hu](http://www.mgyk.hu).

- From 2007 until 2014: Office of Health Care Authorisation and Administrative Procedures (EEKH in Hungarian) [www.eekh.hu](http://www.eekh.hu).

- From 2015, Health Registration and Training Center (ENKK in Hungarian) [www.enkk.hu](http://www.enkk.hu).

Reference period: 31<sup>st</sup> December

Coverage:

- Head count data. Excludes non-practising physicians, retired professionals and professionals working abroad. Includes professionals who are foreigners.

- Residents are excluded.

## **Malta**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: The Registers of the **Pharmacy Council**.

Coverage: 2006/2007: The number of 493 (2006) and 442 (2007) practising Pharmacists represent the number of pharmacists working as pharmacists in Hospital and Community Pharmacies

Break in series: 2009. A change in methodology in supply of data by Pharmacy Council was implemented for figures for end 2009. Figures quoted for practising and professionally active pharmacists are based on full time employment only. The full time equivalence is not recorded by the Pharmacy Council and therefore Head Count of Pharmacists working full time only have been included.

Break in series: From 2012 onwards an estimate of part-timers have been included in the total head count of the practicing pharmacists. Also, a proportion of the pharmacists who have not paid their retention fees have been included.

Deviation from the definition: 2009 figures quoted for practising and professionally active pharmacists are based on full time employment only.

Estimates: From 2011. A proportion of pharmacists who have not indicated their place of work to the Pharmacy Council have been assumed to be practicing pharmacists by the Pharmacy Council.

From 2012 onwards: The number of part-time practicing pharmacists was estimated since these are not all captured by the Pharmacy Council. A proportion of pharmacists who had not paid their retention fees by the end of the year were assumed to be practising pharmacists by the Pharmacy Council Coverage: Data of 2012 has been updated since the number of practising pharmacists was calculated incorrectly.

2015: The data for 2015 is no longer an estimate due to better data capture.

### **Professionally active pharmacists**

Source of data: **Pharmacy Council, Malta**

Reference period: 31<sup>st</sup> December

Figures were supplied by Council for Pharmacists from end 2006 onwards. Figures for years 2006, 2007 and 2008 are the same as those for pharmacists licensed to practice. The figure for end 2009 (488) refers to FTEs pharmacists who are professionally active as many pharmacists have more than one job.

Data for 2010 refers to head counts

Break in series: 2009: A change in methodology in supply of data by Pharmacy Council was implemented for figures for end 2009. Figures quoted for practising and professionally active pharmacists are based on Full Time Employment. The full time equivalence is not recorded by the Pharmacy Council and therefore Head Count of Pharmacists working full time only have been included.

Break in series: 2009.

Break in series: From 2012 onwards. Part-timers have now been included in the total head count of the professionally active pharmacists. Also, a proportion of pharmacists who had not paid their retention fees by the end of the year were included

Deviation from the definition: 2009 figures quoted for practising and professionally active pharmacists are based on full time employment only.

Deviation from the definition: 2010 figures are based on head counts and not full time equivalents

Estimates: 2011. An estimate of 100 professionally active pharmacists has been added as some pharmacists would have not indicated their place of work to the Pharmacy Council.

Estimates: From 2012 onwards a proportion of pharmacists who had not paid their retention fees by the end of the year were assumed to be professionally active pharmacists by the Pharmacy Council. A proportion of pharmacists who have not indicated their place of work to the Pharmacy Council have been assumed to be professionally active pharmacists by the Pharmacy Council. The number of part-time practicing pharmacists was estimated since these are not all captured by the Pharmacy Council 2015: The data for 2015 is no longer an estimate due to better data capture

Coverage: Data of 2012 has been updated since the number of professionally active physicians was calculated incorrectly.

### **Pharmacists licensed to practice**

Source of data: **Pharmacy Council, Malta.**

Reference period: 31<sup>st</sup> December.

Coverage:

Since 2006, an annual registration fee is required for the inclusion in the register of the Pharmacy Council of Malta.

For 2007: Discrepancy in numbers from 2006 in licensed to practice: Numbers quoted by Pharmacy Council (630) refers to the number of pharmacists who had paid their annual registration fees by end 2007 only.

For 2008: Discrepancy in numbers from 2007 in licensed to practice: Numbers quoted by Pharmacy Council (692) refers to the number of pharmacists who had paid their annual registration fees by end 2008 only.

Figures quoted from end 2009 onwards represent those pharmacists who had paid their retention fees by the end of the year.

Break in series: 2006.

Break in series: From 2012 onwards. Figures quoted now also include those pharmacists who had not paid their retention fees by the end of the year.

Deviation from the definition: 2009 figures quoted from end 2009 onwards represent those pharmacists who had paid their retention fees by the end of the year.

2015: The data for 2015 is no longer an estimate due to better data capture.

## Netherlands

### Practising pharmacists (ISCO-08 code: 2262)

Source of data:

- Up to and including 1994: **Inspectorate Health Care**.
- 1995-1998: pharmacists in public pharmacies: **Stichting Farmaceutische Kengetallen** (Foundation Pharmaceutical Key figures); pharmacists in hospitals: **Koninklijke Nederlandsche Maatschappij ter bevordering der Pharmacie** (KNMP) (Royal Dutch Society for the Advancement of Pharmacy).
- 1999 onwards: **Social Statistical Database of Statistics Netherlands, BIG Register** (official register of health care professionals).

Reference period: The last Friday before Christmas.

Coverage:

- Up to 1998: Pharmacists in public pharmacies + pharmacists in hospitals.
- From 1999 onwards: licensed pharmacists working in health care and social assistance (SIC 86, 87 and 88) and in public pharmacies (NACE 4773).
- From 2017 onwards: the license register required re-registration for pharmacists. The register required pharmacists to have been practising with a certain minimum amount working hours in the last 5 years in their professional field. The practising has to be directly related to individual patients or to research and industry activities. Therefore we kept the selection of branches (Sector Q (SIC 86, 87 and 88) and public pharmacies (NACE 4773)). The re-registration has led to a decrease in the numbers published so far.

### Professionally active pharmacists

Source of data: **Social Statistical Database of Statistics Netherlands, BIG Register** (official register of health care professionals).

Reference period: The last Friday before Christmas.

- Figures have been rounded to 5 until 2011.

Coverage: all licensed and economically active (working) pharmacists.

Break in time series

- From 2017 onwards: the license register required re-registration for pharmacists. The register required pharmacists to have been practising with a certain minimum amount working hours in the last 5 years in their professional field. The practising has to be directly related to individual patients or to research and industry activities. All working pharmacists are thus included in the professionally active number. The re-registration has led to a decrease in the numbers published so far.

### **Pharmacists licensed to practice**

Source of data: **Social Statistical Database of Statistics Netherlands, BIG Register** (official register of health care professionals).

Reference period: The last Friday before Christmas.

Coverage: Refers to pharmacists registered and living in the Netherlands (**Pharmacists licensed to practice** exclude pharmacists living abroad).

- Figures have been rounded to 5 until 2011.

- From 2017 onwards: the license register required re-registration for pharmacists. The register required pharmacists to have been practising with a certain minimum amount working hours in the last 5 years in their professional field. The re-registration has led to a decrease in the numbers published so far.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: From 1999 onwards: Data based on BIG register (register of (para)medical professions) and SSB database (micro-integrated database of Statistics Netherlands with data from municipal register, tax register, social security, business register). Before 1999: register of pharmacists.

Reference period: The last Friday before Christmas.

Deviation from the definition: from 1999 onwards: Data refer to **Professionally active pharmacists**. Data refer to the place where the pharmacists live. Included are the pharmacists working in The Netherlands, but living abroad. Their number is the difference between the total and the sum of the workers by region.

Break in time series: 1999 due to change in data source. In 2014 we altered the sector selection as we did not select the industry, wholesale and raw materials sectors, as it is a better estimation for practising pharmacists and dentists. The selection of jobs also has changed from 2014 as we will now also apply the selection of health- or social care sector or a healthcare-related sector on the self-employed persons, before there was no selection on the sector the self-employed health professionals worked. This causes a slight decrease on the numbers of dentists and pharmacists from 2014 onwards. The data on pharmacists are subject of investigation. For now, the data on regional level can be interpreted as **Professionally active pharmacists**.

## **Austria**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Austrian Chamber of Pharmacists**.

Reference period: 31<sup>st</sup> December.

Coverage:

- Included are domestic and foreign practising pharmacists who are licensed to practice according to the Austrian legislation and who are registered at the Austrian Chamber of Pharmacists (head count).
- Included are salaried and self-employed practicing pharmacists in different places of service

provision (public pharmacies, hospital pharmacies).

- Excluded are pharmacists working in industry, administration and research.
- Excluded are pharmacists working abroad, unemployed and retired pharmacists.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Österreichische Apothekerkammer - Vollerhebung / Austrian Chamber of Pharmacists  
- total of members.

Reference period: 31 December.

## **Poland**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Central Statistical Office, Ministry of Health, Ministry of Interior, Ministry of National Defence.**

Reference period: 31<sup>st</sup> December.

Coverage:

- Since 2003 data from the Ministry of National Defence and the Ministry of Interior and Administration are included.
- Includes pharmacists working in hospitals, pharmacies and pharmaceutical outlets and excludes pharmacists working in pharmaceutical manufacturing corporations. Teaching and administrative staff have been excluded since 2004. Pharmacists in training were included in years 2003 and earlier.

Break in time series: Since 2004, pharmacists in training are excluded.

Note: The main reason for the decrease in the number of pharmacists in 2004 was the change in data collection methods (for example pharmacists were previously listed together with persons undergoing training).

### **Professionally active pharmacists**

Source of data: **Ministry of Health, Ministry of Interior, Ministry of National Defence.**

Coverage: Includes pharmacists with universities, units of state or local self-government administration or the National Health Fund as primary workplace.

### **Pharmacists licensed to practice**

Source of data: **Ministry of Health.** Register of the Polish Pharmaceutical Chamber.

Reference period: 31<sup>st</sup> December.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Central Statistical Office, Ministry of Health, Ministry of Interior, Ministry of National Defence.

Reference period: 31st December.

Coverage:

- Since 2003 data from the Ministry of National Defence and the Ministry of Interior.
- Includes pharmacists working in hospitals, in pharmacies and pharmaceutical outlets and excludes pharmacists working in pharmaceutical manufacturing corporations. Teaching and administrative staff excluded since 2004. Pharmacists in training were included in year 2003 and earlier.

Break in time series:

Since 2004: Pharmacists in training are excluded.

Note: The main reason for the decrease in the number of pharmacists in 2004 was the change in data collection methods (for example pharmacists were previously listed together with persons undergoing training).

## **Portugal**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Statistics Portugal / Portuguese Pharmaceutical Society.**

Reference period: 31<sup>st</sup> December.

Coverage:

- Data reflect the number of practising pharmacists registered at the Portuguese Pharmaceutical Society.

### **Professionally active pharmacists**

Source of data: **Statistics Portugal / Portuguese Pharmaceutical Society.**

Reference period: 31<sup>st</sup> December.

Coverage:

- Data reflect the number of practising and non-practising pharmacists registered at the Portuguese Pharmaceutical Society.
- Pharmacists working abroad are excluded.

Deviation from the definition:

- Pharmacists who hold a post/job for which pharmacy education is not required are not excluded.

### **Pharmacists licensed to practice**

Source of data: **Statistics Portugal:**

- Since 1988: Portuguese Pharmaceutical Society;
- 1986-1987: General Directorate of Pharmacist Affairs;
- 1980-1985: Trade Union.

Reference period: 31<sup>st</sup> December.

Coverage:

- Data reflect the number of all pharmacists registered at the Portuguese Pharmaceutical Society.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Statistics Portugal and the Portuguese Pharmaceutical Society.

Reference period: 31st December.

Coverage:

- Data on pharmacists refer to practising pharmacists, which are a part of the total of **Pharmacists licensed to practice** (Portuguese Pharmaceutical Society), by place of activity.

- Pharmacists practising abroad are not included.

## Romania

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **National Institute of Statistics**, Activity of Sanitary Units – annual survey performed by NIS.

Reference period: data as of 31<sup>st</sup> December.

Coverage:

- From 1970 to 1998, data refer only to the public sector.

Before 1990 all pharmacies were only in the public sector, so all pharmacists worked in the public sector. After 1990 an increasingly large number of drugstores was privatized. The trend of sharp decrease in the number of pharmacists between 1991 and 1998 is due to the transition of the pharmacies and pharmacists from public to private sector.

- From 1999 the data cover all sanitary pharmacists from public and private sector.

- Pharmacists (ISCO/COR 2224) are defined as the persons who have completed studies in pharmacology at university level and who are licensed to practice in pharmacology. Pharmacists' tasks include: preparing and supervising the preparation of drugs according to prescription of physicians and dentists, or establish formulae for drugs, checking prescriptions to assure that the recommended dosages are not exceeded and that the instructions are understood by patients or persons who will administrate the drugs, advising on possible drug incompatibility; dispensing drugs in hospital or selling them in pharmacies.

- The pharmacists who work in education field as teachers and pharmacists from health insurance field or that work in other institutions involved in the administration of the healthcare system (e.g. public health institutes) are not included as practising pharmacists. It was impossible to exclude pharmacists who have administrative function in health units because separate registrations do not exist.

- Excluding: students, unemployed pharmacists in health field, retire pharmacists not still working and pharmacists working abroad, pharmacists working in sales field if is not a pharmacy.

Until 2007 pharmacists working in administration, research and in other posts that exclude direct contact with patients could not be totally excluded.

Break in series: 1999.

### **Professionally active pharmacists**

Source of data: **National Institute of Statistics**, Activity of Sanitary Units – annual survey performed by INS.

Reference period: data as of 31<sup>st</sup> December.

Coverage:

- From 1970 to 1998, data refer only to the public sector.

- Before 1990 all pharmacies were only in the public sector, so all pharmacists worked in the public sector. After 1990 an increasingly large number of drugstores was privatized. The trend of sharp decrease in the number of pharmacists between 1991 and 1998 is due to the transition of the pharmacies and pharmacists from public to private sector.

- From 1999 the data cover all sanitary pharmacists from public and private sector.

- Pharmacists (ISCO/COR 2224) are defined as the persons who have completed studies in pharmacology at university level and who are licensed to practice pharmacology. Pharmacists' tasks include: preparing and supervising the preparation of drugs according to prescription of physicians and dentists, or establish formulae for drugs, checking prescriptions to assure that the recommended dosages are not exceeded and that the instructions are understood by patients or persons who will

administrate the drugs, advising on possible drug incompatibility; dispensing drugs in hospital or selling them in pharmacies.

- The number of professionally active pharmacists include: pharmacists who work in education field as teachers and pharmacists from health insurance field or that work in other institutions involved in the administration of the healthcare system (e.g. public health institutes). It was impossible to exclude pharmacists who have administrative function in health units because separate registrations do not exist.

- Excluding: students, unemployed pharmacists in health field, retired pharmacists and pharmacists working abroad, pharmacists working in sales field if is not a pharmacy.

Break in the series: 1999.

### **Pharmacists licensed to practice**

Source of data: **College of the Pharmacists** in Romania

Reference period: data as of 31<sup>st</sup> December.

Coverage: The data cover public and private sector.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: National Institute of Statistics

Reference period: data as of 31<sup>st</sup> December

Coverage: The data for period between 1993-1998 refers to Professionally active pharmacists and include data only from public sector.

Break in the series: 1999.

Until 2007 pharmacists working in administration, research and in other posts that exclude direct contact with patients could not be totally excluded.

## **Slovenia**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **National Institute of Public Health, Slovenia;** National Health Care Providers Database.

Reference period: 31<sup>st</sup> December.

Coverage:

- Practising pharmacists are those working in pharmacies and the health-care sector (primary and secondary care), including public health institutes and the health insurance institute.

### **Professionally active pharmacists**

Source of data: **National Institute of Public Health, Slovenia;** National Health Care Providers Database.

Reference period: 31<sup>st</sup> December.

Coverage:

- Professionally active pharmacists include practising pharmacists working in pharmacies and in the health-care sector and pharmacists working at H.P.4, 6.1, 6.3-6.9 and H.P.7 providers.

- The category "Professionally active pharmacists" includes practising pharmacists (in pharmacies) as well as pharmacists working for other employers (e.g. pharmaceutical industry). Reporting on the latter depends on the accuracy and reliability of reported data. Additionally, practising pharmacists are recorded individually within the National Health Care Providers Database, while other

pharmacists are only aggregated.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: National Institute of Public Health, Slovenia; National Health Care Providers Database.

Reference period: 31st December.

## **Slovakia**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **National Health Information Center.**

Before 2005: Administrative register of health care professionals.

Reference period: 31<sup>st</sup> December.

Coverage: Pharmacists with completed pharmaceutical education, licensed and practising.

Note: As of 2005, data are only available for professionally active pharmacists. Suitable data source for providing “practising” concept is under development.

### **Professionally active pharmacists**

Source of data: **National Health Information Center.**

- From 2005 onwards: Annual report M (MZ SR) 1- 01 on structure and number of health professionals.

Reference period: 31<sup>st</sup> December.

Coverage: Professionally active pharmacists with completed pharmaceutical education (including those working in management or research).

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: National Health Information Center

Data are selected from two different sources:

Annual report on structure and amount of health professionals

Register of Health professionals, as of Dec. 31,

Data for 2005, 2006, 2008, 2009, 2010, 2011, 2012, 2013 , 2014 are from Annual report on structure and amount of health professionals

Data for years 1994 – 2004 and 2007 are from Register of Health professionals, as of Dec. 31,

Reference period: 31st December

Difference in methodology: Pharmacists at regional level are divided from Total number of Professionally active pharmacists.

Data for 2005, 2006 and 2008 are selected from Annual report on structure and amount of health professionals and data for 2007 and before 2005 are selected from Register of Health professionals, as of Dec. 31.

Break in time series: Till 1997 the state statistical findings on number of pharmacists were carried out within the state establishments of pharmaceutical services. In 1997 and before (i.e. in 1994 – 1997 including) privatization of pharmacies / pharmaceutical services was carried out. There is notable decrease of number of pharmacists in 1997 since no private establishments are included within the state statistical findings in 1997. In 1998 non state i.e. private establishments of pharmaceutical services / pharmacies were also included in the state statistical findings and therefore the number of pharmacists increased in 1998.

## **Finland**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: THL Health Personnel Statistics; **National Institute for Health and Welfare**. The data are based on the Employment Register kept by Statistics Finland.

Reference period: Data refer to information for the whole year.

Coverage: from 2014 on figures consist of ISCO-08 codes 2262 and 3213. Practicing pharmacists are limited to social welfare and health care sector.

### **Professionally active pharmacists**

Source of data: THL Health Personnel Statistics; **National Institute for Health and Welfare**. The data for 2000 and 2005 onwards are based on the Employment Register kept by Statistics Finland.

Reference period: Data refer to information for the whole year.

### **Pharmacists licensed to practice**

Source of data: VALVIRA. **National Supervisory Authority for Welfare and Health**. Register on Qualified Health Care Personnel, number of persons aged less than 64 years with qualifications on 31 December.

Reference period: 31<sup>st</sup> December.

Coverage: from 2013 there is age limitation from 18 to 68 year olds.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Administrative figures (National Register of Health Care Professionals).

Reference period: 31<sup>st</sup> December

## **Sweden**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data:

- Before 1999: **The National Corporation of Swedish Pharmacies**.

- From 1999: **National Board of Health and Welfare**, LOVA-register (change of register-name from former NPS-register).

Reference period: 1<sup>st</sup> November.

Coverage:

Before 1999:

-The figures include all pharmacists employed by the National Corporation of Swedish pharmacies.

- All pharmacists working in retail are included in these figures. Even prescriptionists (with a 2-year university education) are included.
- The latter category makes up about 80 % of the group.

From 1999:

- Pharmacists include all persons with a Swedish pharmacist license employed within the retail pharmacy sector.
- Prescriptionists (with a 23-year university degree) are included. This category makes up about 60 % of all pharmacists.
- 100% coverage until year 2018.
- The entire time series has been revised in 2021.

Break in time series: Figures on pharmacists before 1999 are not consistent with the data from 1999 onwards because of differences in sources and methodology.

### **Professionally active pharmacists**

Source of data: **National Board of Health and Welfare**, LOVA-register (change of register-name from former NPS-register).

Reference period: 1<sup>st</sup> November.

Coverage:

- In addition to the NACE-codes used to identify practicing pharmacists the NACE-codes are used to identify professional active pharmacists:
  - 75.1 - Public authorities
  - 80.3 - Higher education establishments
- 100% coverage until year 2018.
- The entire time series has been revised in 2021.

### **Pharmacists licensed to practice**

Source of data: **National Board of Health and Welfare**, LOVA-register (change of register-name from former NPS-register).

Reference period: 1<sup>st</sup> November.

Coverage:

- Pharmacists include all persons with a Swedish pharmacist license employed within the retail pharmacy sector.
- Prescriptionists (with a 23-year university degree) are included. This category makes up about 60 % of all pharmacists.
- Non-retired personnel.
- 100% coverage until year 2019.
- The entire time series has been revised in 2021.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: National Board of Health and Welfare, National Planning Support (NPS) register

Reference period: 1st November

Coverage:

Before 1999:

- The figures include all pharmacists employed by the National Corporation of Swedish pharmacies.
- All pharmacists working in retail are included in these figures. Even prescriptionists (with a 2-year university education) are included.

- The latter category makes up about 80 % of the group.

From 1999:

- 100 percent

- Pharmacists include all persons with a Swedish pharmacist license employed within the retail pharmacy sector.

- Prescriptionists (with a 2-year university degree) are included. This category makes up 86 % of all pharmacists.

Break in time series: Figures on pharmacists before 1999 are not consistent with the data from 1999 onwards because of differences in sources and methodology.

## **Iceland**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Directorate of Health** and **The Association of Icelandic Pharmacists**.

Reference period: 31<sup>st</sup> December.

Coverage:

Included: Practicing pharmacists and exam pharmacists working in pharmacies and in hospitals.

### **Professionally active pharmacists**

Source of data: **Directorate of Health** and **The Association of Icelandic Pharmacists**.

Reference period: 31<sup>st</sup> December.

Coverage:

- Included: Pharmacists and exam pharmacists, proprietary pharmacists, pharmacists working in pharmacies, pharmacists working in the pharmaceutical industry, pharmacists working in hospitals, pharmacists working as professors, pharmacists working in public administration. Assistant pharmacists (people graduating with a shorter university education than full pharmacists) are included.

- Excluded: Pharmacists not working as pharmacists, unemployed pharmacists.

Break in time series: More detailed data (recently available) showed that some pharmacists had been counted twice (both as pharmacists and proprietary pharmacists). Corrections could not be made further back than 1999.

### **Pharmacists licensed to practice**

Source of data:

2016 and onwards: **The Directorate of Health**, Register of Licenced Health Care Professionals.

## **Liechtenstein**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Office of Public Health** (Amt für Gesundheit), List of **Pharmacists licensed to practice** ("Berufsliste Apotheker").

Coverage: Data available from 2005 onward.

Deviation from the definition:-

Estimation method:-

Break in time series:-

## **Professionally active pharmacists**

Source of data: **Office of Public Health** (Amt für Gesundheit), List of **Pharmacists licensed to practice** (“Berufsliste Apotheker”), census.

Coverage: Data available from 2005 onward.

Estimation method: Census data 2010 are used as estimates for the following years. From 2015 onward values are updated due to the availability of the 2015 census.

Break in time series: From 2010 pharmacists, who work in different professions are included (source: census).

## **Pharmacists licensed to practice**

Source of data: **Office of Public Health** (Amt für Gesundheit), List of **Pharmacists licensed to practice** (“Berufsliste Apotheker”), census.

Coverage: Data available from 2005 onward.

Estimation method: Census data 2010 are used as estimates for the following years. From 2015 onward values are updated due to the availability of the 2015 census.  
Break in time series: As above; from 2010 on additionally pharmacists who are not economically active are included (source: census).

## **Norway**

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: **Statistics Norway**; Register-based statistics on employment of health-care personnel.

Reference period: 3<sup>rd</sup> week of November.

Coverage:

- Practising pharmacists are pharmacists working within HP1-HP4 and in nace 21, 46.46 and 47.73.
- Pharmacists working in administration cannot be separated from pharmacists working with patients.

Break in time series: 2015.

- As from 2015, the register-based employment statistics will be based on a new data source for employees. Until the end of 2014, the main data source was The Central Register on Employers and Employees (EE register), produced by the Norwegian Labour and Welfare Organisation (NAV). In 2015, this reporting to NAV was coordinated with the reporting of earnings and personnel data to the Tax Administration and Statistics Norway. This common reporting system is called “a-ordningen” (the a-system).

### **Professionally active pharmacists**

Source of data: **Statistics Norway**; Statistics on health-care personnel. Administrative registers. See [http://www.ssb.no/hesospers\\_en/](http://www.ssb.no/hesospers_en/).

Reference period: 3<sup>rd</sup> week of November.

Break in time series: 2015.

- As from 2015, the register-based employment statistics will be based on a new data source for employees. Until the end of 2014, the main data source was The Central Register on Employers and Employees (EE register), produced by the Norwegian Labour and Welfare Organisation (NAV). In 2015, this reporting to NAV was coordinated with the reporting of earnings and personnel data to the Tax Administration and Statistics Norway. This common reporting system is called “a-ordningen” (the a-system).

## **Pharmacists licensed to practice**

Source of data: **Statistics Norway**; Statistics on health-care personnel. Administrative registers. See [http://www.ssb.no/hesospers\\_en/](http://www.ssb.no/hesospers_en/).

Reference period: 3<sup>rd</sup> week of November.

Coverage: The figures provided cover all registered pharmacists.

Break in time series: 2015.

- As from 2015, the register-based employment statistics will be based on a new data source for employees. Until the end of 2014, the main data source was The Central Register on Employers and Employees (EE register), produced by the Norwegian Labour and Welfare Organisation (NAV). In 2015, this reporting to NAV was coordinated with the reporting of earnings and personnel data to the Tax Administration and Statistics Norway. This common reporting system is called "a-ordningen" (the a-system).

## **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Statistics Norway, Register-based statistics on employment of health care personnel.

Reference period: 3<sup>rd</sup> week of November

Estimation method: Because of organization of pharmacies in Norway, few pharmacists are registered in HP.1-3. All Professionally active pharmacists are included from 2009. The regional figures do not add up because some pharmacists can't be placed according to region.

Break in time series: 2009.

Note: For some institutions the variable Official Municipality Key is missing in the business register. Therefore it can be differences between the totals (national level) and the sum of regions. As from 2015, the register-based employment statistics will be based on a new data source for employees. Until the end of 2014, the main data source was The Central Register on Employers and Employees (EE register), produced by the Norwegian Labour and Welfare Organisation (NAV). In 2015, this reporting to NAV was coordinated with the reporting of earnings and personnel data to the Tax Administration and Statistics Norway. This common reporting system is called "a-ordningen" (the a-system).

## **Switzerland**

### **Practising pharmacists (ISCO-08 code: 2262):**

Source of data: Pharmasuisse, Swiss Pharmaceutical Association (FPH), Bern; Statistics of members.

### **Professionally active pharmacists:**

Data not available.

### **Pharmacists licensed to practice:**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Data not available.

## Montenegro

### **Practising pharmacists (ISCO-08 code: 2262)**

No data available.

### **Professionally active pharmacists**

Source of data: The source for all data submitted is the Institute of Public Health. Some additional information can be found in Health Statistical Yearbooks available at <http://www.ijzcg.me/>

Reference period: December 31<sup>st</sup>

Coverage: Only data from the public sector.

### **Pharmacists licensed to practice**

Source of data: The source for all data submitted is the Pharmaceutical Chamber of Montenegro.

Reference period: December 31<sup>st</sup>

Coverage: All licensed pharmacists in Montenegro.

## North Macedonia

### **Practising pharmacists (ISCO-08 code: 2262)**

Data not available.

### **Professionally active pharmacists**

Source of data: **Institute for Public Health –Skopje**, Report for health staff in health sector (3-00-60), starting from 2008. Until 2006 data were extracted from Agency for drug control, Ministry of Health.

Reference period: 31<sup>st</sup> December.

Coverage: Since 2005, it includes both public and private sector.

Break in time series:

- 2005: inclusion of both public and private sector.
- 2008: Change in data source.

### **Pharmacists licensed to practice**

Data not available.

## Albania

### **Practising pharmacists (ISCO-08 code: 2262)**

Source of data: Ministry of Health

Deviation from the definition: Total number of pharmacists

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Data not available.

## Serbia

### **Practising pharmacists (ISCO-08 code: 2262)**

Data available from 2016.

Source of data: Institute of Public Health of Serbia, National register on health care human resources.

Data as of December 31<sup>st</sup>. <http://www.batut.org.rs/>.

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. Data from health institutions under other ministries (military services, prisons, social services) than the Ministry of Health are not included. Data from private health sector are not included.

Break in time series: During 2019, a new IT solution was piloted and implemented, and the methodology for collecting data on human resources for health in the Republic of Serbia was improved. Data collected by the new methodology have been reported since 2020.

### **Professionally active pharmacists**

Source of data: Institute of Public Health of Serbia, National register on health care human resources.

Data as of December 31<sup>st</sup>. <http://www.batut.org.rs/>.

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. Data from health institutions under other ministries (military services, prisons, social services) than the Ministry of Health are not included. Data from private health sector are not included.

Break in time series: During 2019, a new IT solution was piloted and implemented, and the methodology for collecting data on human resources for health in the Republic of Serbia was improved. Data collected by the new methodology have been reported since 2020.

### **Pharmacists licensed to practice**

Source of data: Serbian Chamber of Pharmacists. Data as of December 31. <http://www.farmkom.rs/>.

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Source of data: Institute of Public Health of Serbia, National register on health care human resources.

Data as of December 31. <http://www.batut.org.rs/>

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. Data from health institutions under other ministries (military services, prisons, social services) than the Ministry of Health are not included. Data from private health sector are not included.

Deviation from the definition: Data refer to professionally active physicians

## Turkey

### **Practising pharmacists (ISCO-08 code: 2262)**

Data not available. Data are available for "professionally active" pharmacists (including pharmacists in administrative, academic or research functions, who are not providing direct care to patients).

### **Professionally active pharmacists**

#### Source of data:

- From 2000 onwards: **General Directorate for Health Services, Ministry of Health.**
- Up to 1999: **Health Statistics Yearbook - Ministry of Health.**

#### Coverage:

- From 2000 onwards: Pharmacists in the MoH, universities, the private sector and self-employed pharmacists are included.
- Ministry of Health, university, private and other sectors (other public establishments, local administrations and since 2012 MoND-affiliated facilities) are included.
- Pharmacists acting as managers in the MoH, universities and the private sector are included.
- Pharmacists who work abroad or have not graduated from school yet are not included.

#### Break in time series: 2018.

- In 2018, the used database for health personnel has been changed. This new source keeps the data as person-based. Health personnel data were collected from health facilities as health facility-based before 2018.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

#### Source of data:

- From 2000 onwards: General Directorate for Health Services, Ministry of Health
- Up to 1999: Ministry of Health; Health Statistics Yearbook.

Deviation from the definition: Data refer to Professionally active pharmacists.

#### Coverage:

- From 2000 onwards: Pharmacists in the MoH, University, private, other sector and self-employed pharmacists are included.
- Pharmacists acting as managers in the MoH, University, private and other sector are included.
- Pharmacists who work abroad or have not graduated from school yet are not included.
- Up to 1999: Data includes Pharmacists working in public or university administration.

## **United Kingdom**

### **Practising pharmacists (ISCO-08 code: 2262)**

#### Source of data:

- **Great Britain: General Pharmaceutical Council (GPhC)** from 2011 onwards; **Royal Pharmaceutical Society of Great Britain (RPSGB)** prior to 2011.
- **Northern Ireland: Pharmaceutical Society of Northern Ireland.**

#### Coverage:

- Data are the sum of GB data and Northern Ireland data.
- **Great Britain:**

For the purposes of the Pharmacy Order 2010, section 3(2), a person practises as a pharmacist if, whilst acting in the capacity of or purporting to be a pharmacist, that person undertakes any work or gives any advice in relation to the preparation, assembly, dispensing, sale, supply or use of medicines, the science of medicines, the practice of pharmacy or the provision of healthcare. To practise as a pharmacist in Great Britain, an individual must be registered with the GPhC. Therefore the GB numbers are based on pharmacists registered.

Data exclude:

- Students who have not yet graduated and pre-registration trainees  
Pharmacists in these groups will be included if the definition of practising (Pharmacy Order 2010 3(2)) applies to them and they register with the GPhC:
  - Pharmacists working in administration, research and in other posts that exclude direct contact with the patients (clients)
  - Unemployed pharmacists and retired pharmacists
  - Pharmacists working abroad.
- **Great Britain:** The data will not necessarily exclude these groups, since if they intend to practise or wish to be known as a pharmacist they need to register. A pharmacist would not normally come off the register if they are temporarily unemployed, for example.
- **Northern Ireland:** Data only available from 2005. The number of pharmacists who paid for full membership in the Pharmaceutical Society of Northern Ireland in each year. This will exclude practising pharmacists aged 65+ (these pharmacists are not required to pay for full membership).
- In Northern Ireland, there will be a small percentage of students included (approx. 150 to 200 per year).

Estimation method:

- **Great Britain:** Data estimated by using data from the RPSGB register data 2009 and workforce census of 2005 and 2008. Estimates were calculated by applying the proportion of survey respondents who were found to be “working as a pharmacist” in 2005 and 2008 to the number of registered members of the RPSGB who were living in Britain in each year.
- **Northern Ireland:** Data for 2002 to 2004 estimated based on the contribution to the UK total between 2005 and 2008. In 2011, data for 2007-2009 have been revised and were approximated using the Pharmaceutical Society annual reports excluding an estimate of those in academia, but figures may still include retirees. Data from 2010, however, do exclude staff working in academia and those retired.

Break in time series: change in data source for the Great Britain in 2011. The RPSGB maintained a ‘practising’ register and a ‘non-practising’ register. Before 2011, data refer to ‘RPSGB Practising Pharmacists register’. The GPhC was established under the Pharmacy Order 2010 and took over the regulatory functions of the RPSGB from 27 September 2010. In accordance with Article 20(3) of the Pharmacy Order, the GPhC register is a register of pharmacists who intend to practise in GB, the Channel Islands or the Isle of Man. Anyone on the RPSGB ‘non-practising’ register who intended to practise as a pharmacist had to apply to enter the GPhC register of pharmacists. This explains the increase in the number of pharmacists reported in 2011.

### **Professionally active pharmacists**

Data not available.

### **Pharmacists licensed to practice**

Data not available.

### **Pharmacists at regional level**

Data collection discontinued in 2017 (reference year 2015)

Data not available.