

OECD Health Statistics 2018

Definitions, Sources and Methods

Physicians by age group (under 35, 35-44, 45-54, 55-64, 65-74, 75 and over) and by gender

Age groups include less than 35, 35-44, 45-54, 55-64, 65-74, 75+, for total, female and male **physicians**.

The **breakdown by age and gender** should be provided for practising physicians. (If not possible, the data can be reported for professionally active physicians or physicians licensed to practise).

Note: The number should be at the end of the calendar year.

Sources and Methods

Australia

Source of data:

- 2013 onwards: **Department of Health (DoH)**. NHWDS 2013-16 Medical Practitioners Data. Data request. Also available at <http://hwd.health.gov.au/>.
- 2012: **Australian Institute of Health and Welfare 2014**. Medical workforce 2012. National health workforce serie no. 8. Cat. No. HWL 54. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2011: **Australian Institute of Health and Welfare 2013**. Medical workforce 2011. National health workforce series no. 3. Cat. No. HWL 39. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2010: Comprehensive data for Australia are unavailable.
- 1991-2009: **Australian Institute of Health and Welfare 2011**. Medical labour force 2009. AIHW bulletin no. 89. Cat. no. AUS 138. Canberra: AIHW (and previous issues). Also available at www.aihw.gov.au. Data based on annual re-registrations.
- 1984-1990: Medicare provider summary, **Department of Health and Ageing**. Data are for registered providers with at least one annual claim.

Coverage:

- Data exclude non-practising physicians, retired professionals and professionals working abroad. Include professionals who are foreigners.
- Data report physicians currently working as clinicians, i.e. a medical practitioner who is involved in the diagnosis and/or treatment of patients, including recommended preventative action and spends most of their weekly working hours engaged in a clinical practice. Data include general practitioners/primary care practitioners, hospital non-specialists, specialists, specialists-in-training and other clinicians.
- Data exclude administrators, teacher/educators, researchers and 'other' non-clinicians i.e. medical practitioners who spend most of their total weekly working hours not engaged in clinical practice.
- From 2006, a new category called "other clinicians" has been added by the registrars.

Deviation from the definition: Until 2012 the age group "65-74" includes all physicians aged 65 and over. From 2013 the "75+" age-group is reported separate to the "65-74" age group.

Break in time series:

- Data was not provided by some states in 2010. Data is not available for a national comparison between 2010 and other years.
- Data for 2011 include provisional registrants. The 2011 numbers are not comparable with other years, hence it has been decided to remove them from the database.
- From 2012, data exclude provisional registrants.

- From 2011, data are based on estimates derived from the National Health Workforce Data Set (NHWDS). The NHWDS combines data from the National Registration and Accreditation Scheme (NRAS) with health workforce survey data. Before 2010, the AIHW Medical Labour Force Survey was managed by each state and territory health authority. A detailed description of the Medical Workforce Survey 2011, including a summary of changes from the 2009 AIHW Medical Labour Force Survey and data collected, is provided in Appendix A of *Medical workforce 2011* at www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129542629. Comparison of 2011 and later data with 2009 and earlier data should be made with caution.
- From 2013 the NHWDS is held by the Department of Health and the data has minor differences from the previous AIHW holdings due to the method of imputation for survey non-response and enhanced geocoding methods.

Austria

Source of data: **Austrian Medical Association**, Register of practising physicians.

Reference period: End of the calendar year.

Coverage:

- Included are domestic and foreign practising physicians who are licensed to practice according to the Austrian legislation and who are registered at the Austrian Medical Association (head count).
- Included are salaried and self-employed practising physicians in different places of service provision (private practices, hospitals, etc.).
- Included are interns and residents under supervision of other medical doctors.
- Included are dental and maxillofacial surgeons.
- Excluded are dentists and stomatologists.
- Excluded are physicians who do not provide services to individual patients (in pharmaceutical industry, administration, research, etc.).
- Excluded are physicians working abroad, unemployed and retired physicians.

Break in time series:

- Since 2002, legally qualified and approbated foreign physicians are included.
- Since 2013, physicians aged 65 years or more who run their private practice with only few patients and below a considerable income limit have to be registered by the Austrian Medical Association. Before 2013, this was not necessary.
- Before 2014, the age group “65-74” includes all physicians aged 65 years or more (including those aged 75 years or more). From 2014 onwards, the breakdown between age groups “65-74” and “75 and over” is available.

Belgium

Source of data: **Institut National d'Assurance Maladie Invalidité**, “Rapport Annuel”.

Reference period: 31st December.

Coverage:

- Head count data.
- Excludes non-practising physicians, retired professionals and professionals working abroad. Includes professionals who are foreigners.
- Excludes physicians in training.
- Stomatologists are included in the number of physicians.
- Data represent the number of physicians with a minimal volume of patient contacts.
- There are sometimes small differences between the total number of practising physicians and the data by age group and gender. This is due to lacking information on age and gender for some physicians.

Break in time series: Before 2009, the age group “65-74” covers all physicians aged 65 years old and over (including physicians aged 75 and over).

Canada

Source of data:

- **Canadian Institute for Health Information**, Scott’s Medical Database (SMDB).
- **Canadian Post-M.D. Education Register (CAPER)**.
- **Statistics Canada**.

- Health Canada.

Coverage:

- The breakdown by age and gender is provided for professionally active physicians.
- Professionally active physician counts from 1988 to current year reflect the summation of data from two distinct data sources: 'active' (see SMDB below) family medicine (includes general practitioners and specialists in family medicine and emergency family medicine) and specialist physicians from the Scott's Medical Database (SMDB) at the Canadian Institute for Health Information, formerly called the Southam Medical Database ; and, intern and resident (post-Medical Degree (M.D.) trainees) counts from the Canadian Post MD Education Registry (CAPER). General practitioner and specialist physician counts until 1987 represent SMDB data only (i.e. excluding interns and residents). Counts of interns and residents by area of post-M.D. training (general practitioner or specialist) are not available for this period.

- **SMDB Specific Notes:** The data reflects figures as at 31st December of the reference year and includes the total number of 'active' civilian physicians in clinical and non-clinical (i.e. administration, research, teaching and industry positions) practice. Physicians are counted as active if they have a Medical Degree, are registered with a jurisdictional medical college, do not work for the military and have a valid mailing address. Data exclude non-registered physicians who requested that their information not be published as at 31st December of the reference year.

Deviation from the definition: Data refer to professionally active physicians.

Break in time series: Data on age and gender (1988 forward) reflect the summation of 'active' civilian physicians (from SMDB) and interns and residents (from CAPER). Counts by age and gender until 1987 represent SMDB data only (i.e. excluding interns and residents). Counts of interns and residents by area of post-M.D. training (by age and gender) are not available for this period.

Estimation method: In SMDB, a number of physicians did not indicate either their date of birth and/or their year of MD graduation. For those physicians for whom only year of MD graduation is available, age is calculated using year of MD graduation with age at MD graduation equal to 25 years. For physicians under the age of 20 years old or over the age of 90 years old, their age is considered unknown. Generally, in each year, the age is not known for fewer than 0.5% of physicians. In addition, a number of physicians did not indicate their sex. Generally, in each year, the sex was not stated by fewer than 2% of physicians. Therefore, the number of physicians per gender and per age group as reported may be slightly understated. The physician's sex and age data are updated historically each year based on the most recent records received from Scott's Directories.

- For detailed methodological notes concerning the SMDB, please see CIHI's annual publication "Supply, Distribution and Migration of Physicians in Canada". Available free for download at <https://secure.cihi.ca/estore/productSeries.htm?pc=PCC34>.

- Provisional estimates for 2017, based on the average annual rate of growth between 2011 and 2016, subject to revision in 2019.

Chile

Source of data: **Ministry of Health** using as original source the National Registry of Individual Health Providers from the **Health Superintendence** (www.superdesalud.cl), which was created by a law-ranking decree of November 2008, progressively installed since 2009, and is henceforth used. Its creation and maintenance are in charge of the Health Superintendence. This Registry is now the official Health Human Resources data source of the Statistics National Institute of Chile (INE).

- The inscription in the Register has been progressive, and the changes in the figures that can be observed between 2010 and 2013 are principally due to its progressive extension, and this effect is lower since 2014.

Coverage: Nationwide.

- Data include physicians employed in the public and private sectors.

- The difference between 2010 and 2013 data is due both to the incorporation in the Registry of the new graduates (approximately 1000 in 2010, 1300 in 2011, 1000 in 2012 and 1500 in 2013; the graduates data of a year is published at the middle of the following year) and to the extensibility of the Registry. Since 2014, it could be considered that the extensibility of the Registry effect on the tendency is lower than in the previous period.

- When the professional has more than one grade, the last obtained has been chosen. This rule applies to all the professional categories considered (physicians, midwives, nurses etc.).

- In 2012, 2013, 2014, 2016 and 2017, the total of physicians by gender and age groups (e.g. 44 342 in 2017) is less

than the total of registered physicians (45 088 in 2017). This is due to the lack of information about age in a number of cases (e.g. 325 in 2016 and 746 in 2017).

Deviation from the definition:

- Data refer to physicians licensed to practice. It is not available for practising physicians.
- The age group “65-74” includes all physicians aged 65 years old and over (including those aged 75 and over) until 2014.

Break in time series: the breakdown between age groups “65-74” and “75 and over” is available from 2015 onwards.

Czech Republic

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

Reference period: 31st December.

Coverage:

- Only employees on payroll are included.
- Until 1999, physicians working in other central organs not included. Since the year 2000 data covers physicians in all health services.
- Since 2003, excluded physicians working in Public Health Stations (administrative offices for public health protection and supervision).
- Until 2003, also included physicians working only in the sector of Education and not providing direct medical care to patients.
- Number of physicians working in the sector of Labour and Social Affairs only estimated for 2004.
- In 2014, data are not available. The Registry of Physicians, Dentists and Pharmacists was legislatively terminated on 31. 12. 2013. Break in time series: 2000.

Denmark

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

Reference period: 31st December.

Coverage:

- Physicians who have a license to practice and whose status in the Central Personnel Register (CPR) is active (not dead or abroad), i.e. in the country; a) employed, b) employed, being on leave or c) employed, receiving sickness benefit.
- Dentists are not included.

Break in time series: 1992. Change in the data collection.

Estonia

Source of data:

- Annual reports, **National Institute for Health Development**, Department of Health Statistics (until 2006).
- Registry of Health Care Professionals, **Health Board** (licensed to practice since 2007).

Reference period:

- Until 2006: 31st of December.
- Since 2007: January of the following year.

Coverage:

- Until 2006, the number of practising physicians by gender was based on their last or main educational qualification. The number does not include medical staff working in research or other areas. The military area has been included since 2010.
- Since 2007, the number of physicians licensed to practice presents overall potential, not persons by the last obtained speciality.
- Data not available by age group for 1998-2006.
- Age group 65-74 includes people 65 years and over (i.e. 65+ years)

Break in time series: 2007. Data up to 2006 refer to practising physicians; data from 2007 onwards refer to physicians licensed to practice.

Estimation method: The total number of physicians for 1998-2001 has been corrected according to the total number of practicing physicians, and therefore the numbers of male and female physicians were estimated on the basis of

previous gender percentage distribution. For the years 2002 and 2004-2006 the original data were partial or missing, therefore trend estimation is used for the numbers of male and female physicians.

Finland

1) Until 2009

Source of data: **Finnish Medical Association.** Register of Finnish Medical Association which is updated by a yearly survey covering all physicians licensed to practice in Finland who are not retired.

Reference period: Mid-March.

Coverage: Data refer to professionally active. Includes physicians who are under 64 years old.

2) For year 2010

Source of data: **Finnish Medical Association.** Data from a survey: "Physicians' Working Conditions and Health" 2010 survey.

Reference period: End of year.

Coverage: Survey for 7000 physicians, response rate 54 %. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

3) 2011

Source of data: **Finnish Medical Association.** Data from a survey: "Finnish Medical Association Labour Market Survey 2012".

Reference period: March 2012.

Coverage: The survey population consisted of physicians aged under 70 years old, resident in Finland and having a registered e-mail address in the Finnish Medical Association's register. The survey was carried out electronically in March 2012. An e-mail invitation was sent to 18701 physicians. A total of 5660 physicians responded. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

4) 2012

Source of data: **Finnish Medical Association.** Data from a survey: "Finnish Medical Association Labour Market Survey 2013".

Reference period: March 2013.

Coverage: The survey population consisted of physicians aged under 70 years old, resident in Finland and having a registered e-mail address in the Finnish Medical Association's register. The survey was carried out electronically in March 2013. An e-mail invitation was sent to 19 212 physicians. A total of 5 076 physicians responded. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

5) 2013

Source of data: **Finnish Medical Association.** Data from a survey: "Finnish Medical Association Labour Market Survey 2014".

Reference period: March 2014.

Coverage: The survey population consisted of physicians aged under 70 years old, resident in Finland and having a registered e-mail address in the Finnish Medical Association's register. The survey was carried out electronically in March 2014. A total of 4 562 physicians responded. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

6) 2014

Source of data: **Finnish Medical Association.** Data from a survey: "Physicians' Working Conditions and Health 2015" Survey.

Reference period: March 2015.

Coverage: Survey for 7000 physicians under 70-years old, response rate 44 %. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

7) **2015**

Source of data: **Finnish Medical Association**. Data from a survey: "Finnish Medical Association Labour Market Survey 2016".

Reference period: March 2016.

Coverage: The survey population consisted of physicians aged under 70 years old, resident in Finland and having a registered e-mail address in the Finnish Medical Association's register. The survey was carried out electronically in March 2016. A total of 4 118 physicians responded. The data were weighted according to sex, age group and specialisation to represent all physicians under 70 years old who are licensed to practice and living in Finland. These data concern professionally active physicians under 65 years old.

Deviation from the definition: Data refer to professionally active physicians.

France

Source of data: **Ministère du Travail, de l'Emploi 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.**

- Until 2010 (01/01/2011): Répertoire ADELI (DREES).

- From 2011 (01/01/2012): RPPS (Répertoire partagé des professionnels de santé), ASIP-SANTE RPPS.

Reference period: 31st December.

Coverage:

- Data refer to metropolitan France and D.O.M. (overseas departments).
- All public and private hospitals and clinics are covered.
- Stomatologists and dentists are not included in the number of physicians.
- Interns and residents are not included.

Deviation from the definition:

- The data refer to active physicians.
- Interns and residents are not included.

Break in time series:

- In 2009 (01/01/2010), there is a break in the series for physicians because of a change in the statistical methodology. Therefore the evolution between 2008 and 2009 must not be interpreted as a decrease in the number of professionals. (The change in methodology had an impact of about -1.3% on the number of doctors in metropolitan France in 2009).

- In 2011 (01/01/2012), there is a second break in the series because of the change in the data source (RPPS since 2011).

Germany

Source of data: **German Medical Association**, Medical practitioner statistics; <http://www.gbe-bund.de> or <http://www.baek.de>.

Reference period: 31st December.

Coverage:

- Data contain the number of physicians who are actively practising medicine in public and private institutions and provide services directly to patients (head-count data).
- Included are general practitioners, specialists, interns and resident physicians, and foreign physicians licensed to practice and actively practising medicine in the country.
- The data exclude dentists, stomatologists and physicians with specialty "dental, oral and maxillofacial surgery".
- Excluded are qualified physicians working abroad, working in administration, research and industry positions, unemployed and retired physicians and students who have not yet graduated.

Deviation from the definition:

- The delivered data refers to German demarcation of age, which is as follows: less than 35 years old = less than 35 years old, between 35 and 44 years old = between 35 and 39 years old, between 45 and 54 years old = between 40 and 49 years old, between 55 and 64 years old = between 50 and 65 years old, between 65 and 74 years old = 66 years old and over.

Greece

Source of data: Hygiene Divisions and Sections attached to prefectures, Athens Medical Association and Pireas Medical Association. Annual Doctors and Dentists survey, <http://www.statistics.gr/el/statistics/-/publication/SHE09/>.

Reference period: 31st December.

Coverage: The breakdown by age and gender is provided for physicians licensed to practice. Unemployed physicians are included.

Deviation from the definition: Data refer to physicians licensed to practice. However, retired physicians and physicians working abroad are not included.

Hungary

Source of data:

- Up to 1999: **Ministry of Health**.

- Between 2000 and 2001: Data are estimates from National Institute for Strategic Health Research (ESKI) based on the operational registration of the **Hungarian Medical Chamber** (MOK in Hungarian) www.mok.hu.

- Between 2002 and 2006: Operational registration of the **Hungarian Medical Chamber** (MOK in Hungarian) www.mok.hu.

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

- From 2015, **Health Registration and Training Center** (ENKK in Hungarian) www.enkk.hu.

Reference period: 31st December.

Deviation from the definition: Data from 1995 to 2003 included the number of practicing dentists as well. It is not possible to filter out the dentists from the different age groups.

Break in the series: 2000, 2002, 2004, 2005, 2007, 2008, 2010, 2015.

- In 2000, change of data source from the Ministry of Health to estimates based on values obtained through the Hungarian Medical Chamber in the years 2002-2006.

- In 2002: change of data source to the Hungarian Medical Chamber.

- In 2004: Since 2004, practicing dentists are excluded and only practicing physicians are reported.

- In 2005, the Hungarian Medical Chamber (MOK) performed data cleaning in the database to identify more precisely practising physicians, deleting 3,000 persons due to retirement or death and about 1,300 persons due to employment abroad or leaving the profession.

- From 2007, the Office of Health Authorization and Administrative Procedures (EEKH) – unlike in the previous years – provided data not on the basis of last acquired specialisation, but according to the dominant specialisation practiced during medical work.

- In 2008, the Office of Health Care Authorisation and Administrative Procedures significantly revised the data in the registry by calling for refinement, according to the 1997. CLIV. Act.

- In 2010, 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.

Iceland

Source of data:

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

- 2003-2015: **The Directorate of Health**, Register of Physicians.

- Until 2002: **The Directorate of Health**. Data from inpatient care institutions, health centres and The State Social Security Institute.

Reference period: 31st December.

Coverage:

- Head count data.

- Includes those physicians who are 70 years old or younger with permanent residence in Iceland (Icelanders or foreigners).

- Excludes retired professionals and professionals working abroad.
- May include a very small number of non-practising physicians.

Deviation from the definition regarding age-group: Data for the age-group 65-74 refers to 65-70.

Break in time series:

- Break in series in 2005 due to revision of methodology. The methodology was altered in 2009 in such a way that registered domicile is now taken into account when counting the number of physicians, not only permanent residence. Figures for previous years, back to 2005, were revised accordingly.
- Break in series in 2016 is due to revision of methodology and change in data source. The methodology was altered in such a way that registered domicile is no longer taken into account when counting the number of physicians, only permanent residence. The data source is the Register of Licenced Health Care Professionals instead of the Register of Physicians, which no longer exists.

Ireland

Source of data: **Medical Council of Ireland.**

Reference period: Since 2006, figures refer to 31st December.

Coverage:

- From 2014: Data refer to doctors registered with the Medical Council of Ireland who, in the last 12 months, have declared themselves active and who have worked in Ireland either full or part-time
- Up to 2013, figures refer to all persons (including those abroad from 2006 on) who have entered and maintained their name as fully registered doctors in the Register of Medical Practitioners, regardless of the area in which they are engaged or whether or not they are practising medicine. Physicians licensed refer to those registered by the Medical Council of Ireland. Registration is a pre-requisite for practice in Ireland. It is not possible to exclude physicians working in administration, research or other posts that exclude direct contact with patients. These physicians can still be registered as a medical practitioner and are therefore included.

Deviation from the definition:

- From 2014, data refer to professionally active physicians.
- Up to 2013, data refer to physicians licensed to practice.
- Up to and including 2012, age groups refer to 20-35 years old, 36-45 years old, 46-55 years old, 56-64 years old and 65 years old and over.
- Data for age groups not available for 2009 and 2010.

Break in time series:

- Break in time series in 2014: From 2014, data refer to doctors registered with the Medical Council of Ireland who, in the last 12 months, have declared themselves active and who have worked in Ireland either full or part-time, thus approximating the professionally active concept.
- In 2012, data were not available by age/gender for the 288 doctors registered in the Supervised Division. As a result, the total physicians licensed does not equate to the totals of age and gender.
- Break occurs in 2006 – up to and including 2004, data refer only to those registered with addresses in the Republic of Ireland. From 2006 on, those with overseas addresses are also included.

Note (2006-2012): The sum of the age groups does not add up to the total number of physicians as the Oral and Maxillo-Facial specialty is excluded from the total (as per ISCO). However, it was not possible to exclude this specialty from the age group breakdown. This only accounts for a small number of physicians.

Israel

Source of data: The data are based on the Physicians License Registry maintained by the Medical Professions Division and the Health Information Division in the **Ministry of Health**, for which the demographic information and date of death are periodically updated from the Population Registry at the Ministry of Interior.

Coverage: Data are for all licensed physicians (including residents). The data include only physicians with valid licenses at the end of each reference year.

Deviation from the definition: Data are for the number of physicians licensed to practice.

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 of data:

- Since 2012: a) *For General practitioners and General paediatricians practicing in the National Health System: Ministry of Health* - General Directorate of digitalisation, health information system and statistics - Office of Statistics. b) *For Specialised physicians, Other generalist medical practitioners and General paediatricians not practicing in the National Health System: ISTAT* provides data produced by **IQVIA ITALIA** - OneKey database. <https://www.iqvia.com/>.

- 1995-2011: **ISTAT** provided data produced by **ENPAM** (National Insurance Institute of physicians and dentists).

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Coverage: Data refer to practising physicians since 2012.

Deviation from the definition:

- Data refer to physicians licensed to practice from 1995 to 2011.

- Until 2011, the age group “65-74” includes all physicians aged 65 years old and over (including those aged 75 and over). The breakdown between age groups “65-74” and “75+” is available starting from 2012.

Break in time series: 2000, 2012.

- Figures include dentists until 1999. Since 2000, dentists have been excluded.

- Up to 2011: Physicians licensed to practice. Since 2012, data refer to practising physicians.

Estimation method:

- Data from 2000 to 2004 are estimated. The total number of physicians licensed to practice (excluding dentists) was distributed by age group using the proportion by age group of previous data (that included dentists).

Japan

Source of data: **Ministry of Health, Labour and Welfare**. Survey of Physicians, Dentists and Pharmacists (published annually until 1981, and every two years from 1982).

Coverage:

- Head count data.

- Data consist of physicians working at medical institutions (including those who work as clinical teaching staff at medical school hospitals) and at healthcare facilities for the elderly requiring long-term care. Data include foreign physicians licensed to practice. Data exclude physicians working in the areas such as industry, research and administration, physicians working abroad, and not-acting physicians.

- Data include doctors-in-training.

Deviation from the definition: the age group “65-74” includes all physicians aged 65 years old and over (including over 74).

Korea

Source of data: **Health Insurance Review & Assessment Service**, Unpublished data.

Further information at <http://www.hira.or.kr/eng/index.html>.

Coverage:

- Data refer to practising physicians.

- Includes Korean oriental medicine doctors.

- Includes interns and residents.

Break in time series: Until 2011, the age group “65-74” includes all physicians aged 65 and over. From 2012 onwards, data are split between physicians aged 65-74 years old and physicians aged 75 years old and over.

Latvia

Source of data:

- Since 2005: **Medical Persons' Register** Health Inspectorate of Latvia.

Reference period: 31 December.

Coverage: From 2005 onwards, data refer to practising physicians.

Break in time series:

- 2010: until 2009, the age group “65-74” includes also physicians aged 75 and over. Data are separated between “65-74” and “75+” from 2010 onwards.

Luxembourg

Source of data: **Direction de la Santé** - Service des statistiques. Register of doctors and health professionals.

Reference period: 31st December.

Coverage: Practising physicians, female physicians and male physicians, by age groups and total.

Break in time series:

- Until 2014: Age group 65-74 years includes physicians aged 75+ as well.

- Since 2015: new breakdown in data collection: physicians aged 65-74 years and 75+ are identified.

Mexico

Source of data:

- **Ministry of Health**. 2015 to 2016, data are taken from the National Health Information System (SINAIS). In the case of the private sector, for 2015 to 2016 the data are taken from the **National Institute of Statistics and Geography** (INEGI). National Survey on Medical units with Inpatient Hospital Services.

- **Ministry of Health**. 2015 to 2016, Health Professional Register.

Estimation method:

- To calculate the number of physicians by age and sex, an estimate is made based on information from the nominal registry of professionals of public institutions, in which the sex and age of health professionals is recorded.

- The proportions of physicians are generated according to the sex reported and to the established age groups, by type of resources in order to obtain the correct weights. Once the proportions are identified, they are applied to the national data to obtain the estimated values that are reported.

Netherlands

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

Deviation from the definition: From 1999 to 2013, data refer to professionally active physicians. The figures for previous years refer to physicians licensed to practice. From 2014 onwards we use the definition of practising physicians.

Break in time series: 1999, 2014.

- As from 2014 we adapted a new method to physicians with a specialism and general practitioners. As the license register requires physicians to have been practising in the past five years we did not use the sector of employment in the selection method anymore. Research showed this was a better estimate for the required definition of practising. The result is a slight increase of their numbers from 2014 onwards.

New Zealand

Source of data: **New Zealand Medical Council Registration Data**.

Coverage:

- The breakdown by age group and gender from 2000 is based on "physicians licensed to practice".

- The data is sourced from the NZMC's registration database.

- The figures for “Physicians Licensed to Practice” are based on the number of doctors on the New Zealand medical register with a current practising certificate.

- In New Zealand, doctors are entitled to retain their name on the medical register, but they may not practice medicine without a current practising certificate.

- Both interns and residents are included in NZ figures for physicians by age group.

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

Break in time series: Until 2014, the age group “65-74” includes all physicians aged 65 and over. From 2015 onwards, data are split between physicians aged 65-74 years old and physicians aged 75 years old and over.

Norway

Source of data: **Statistics Norway**. Statistics on health-care personnel. Administrative registers. See www.ssb.no/hesospers_en/.

Reference period: 3rd week of November.

Coverage:

- 2002-2008 data include all personnel within HP1-HP3.
- 2009: data include all personnel within HP1-HP4.
- Personnel with a medical degree who are working in the relevant industries and for whom occupational data are missing are assumed to be practising physicians. Retired professionals and professionals working abroad are excluded and foreign professionals are included. Specialists in dental surgery are excluded.

Break in time series: 2009, 2015.

- Up to 2008, data include all personnel within HP1-HP3. From 2009, because of national registration and quality, it is also chosen to include physicians in HP4.
- 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).

Poland

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

Reference period: 31st December.

Coverage: Physicians are categorised as practising or professionally active physicians based on the primary workplace.

- Since 2003 data from the Ministry of National Defence and the Ministry of Interior are included.
- Since 2004 teaching and administration staff are excluded.
- Since 2005 physicians with the primary work place being private medical offices, stationary social assistance facilities and nursing homes are included.
- Physicians working in prisons are excluded.

Break in time series:

- 2003, 2004, and 2005. See coverage notes above for description.

Portugal

Source of data: **Statistics Portugal** and the **Portuguese Medical Association.**

Reference period: 31st December.

Coverage:

- Head count data.
- Includes all physicians registered in the Portuguese Medical Association at the time of data collection, practising or not practising medicine.
- Data by age groups are not available.

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

Slovak Republic

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

- From 2005 onwards: Annual Report M (MZ SR) 1- 01 on structure and number of health professionals.
- Before 2005: Administrative register of health care professionals.

Reference period: 31st December.

Deviation from the definition:

- Data refer to professionally active physicians.
- Age group 65-74 years contains physicians aged 65 or more years, as it is not possible to split physicians between the age groups 65-74 and 75 and over.

Break in time series: 2005 (change in data source).

Slovenia

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

Reference period: 31st December.

Coverage:

- Practising physicians are those working in the health-care sector (primary and secondary care) including public health institutes and the health insurance institute.
- The National Health Care Providers Database is a registry with total (100 %) coverage of health workers.

Spain

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

http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t22/e308_mnu&file=inebase&N=&L=0.

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

Coverage:

- Up to 2010, the data include “physicians and odontologists” from the National Occupations Classification (CNO-94 Spain, code 212) on 3-digit level. The information on 4 digit level is not available. The CNO-94 code 212 is the Spanish equivalence of ISCO-88 codes 2221 (medical doctors) and 2222 (dentists). It is not possible to separate “physicians and odontologists” on 3-digit level.
- From 2011 onwards the data are classified according to CNO-11 Spain, code 211. The CNO-11 code 211 is the Spanish equivalence of ISCO-08 code 221 (medical doctors). Dentists are not included in the ‘practising’ figures since 2011.
- The ‘practising’ data correspond to physicians whose activity (NACE) is within the health sector. The number of practising physicians was obtained by calculating the number of physicians employed in the health sector according to NACE rev.2 (chapter Q) since 2009, and similarly with NACE Rev.1 and NACE Rev.1.1 before 2009.
- Medical interns/residents are included in the data on health employment if they worked at least one hour in return for remuneration during the week prior to the interview (Survey reference week).
- 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.

Deviation from the definition:

- Data include dentists until 2010.
 - The age group “65-74” includes all physicians aged 65 years old and over (including those aged 75 and over).
- 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.

Sweden

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

Reference period: 1st November.

Coverage:

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

- Physicians include all persons with a Swedish physician's license and pre-licensed physicians employed within the health-care sector.
- 100% coverage.
- The time series is revised annually because the register is a living register which means that certain information like date of death or examination and licence status are updated retroactively.

Switzerland

Source of data: **FSO Federal Statistical Office**, Neuchâtel; **Swiss Medical Association (FMH)**, Bern; medical statistics of physicians; yearly census.

Coverage:

- Data refer to practising physicians since 2008.
- There is a small difference between the total and the sum of age categories, because a very few number of physicians have an unknown age.

Deviation from the definition:

- Data refer to professionally active physicians until 2007.
- No data available for age group 75 and over before 2008.

Break in time series: 2008. Since 2008, the data refer to practising physicians.

Turkey

Source of data: **General Directorate of Management Services, Ministry of Health; General Directorate of Health Services, Ministry of Health.**

Coverage:

- Medical residents, specialists and GPs acting as managers are included.

Deviation from the definition: Data refer to professionally active physicians.

Estimation method: The number of female and male physicians and their age breakdown across the country has been estimated based on the number of female and male professionally active physicians in the Ministry of Health hospitals.

United Kingdom

Source of data:

- **England:** Up to 1999: NHS Digital, General & Personal Medical Services Statistics, and Medical & Dental Workforce Census. Data since 2000 have been updated in 2018 as follows:

* Hospital and Community Health Services (HCHS) Doctors. 2000-2008: Medical & Dental Workforce Census; 2009 onwards: NHS Hospital & Community Health Service (HCHS) workforce statistics. (Data as at 30 September each year). 2009-2014: Data were previously rolecount - they are now headcount so 2009 onwards data are consistent.

* General Practitioners (GPs). 2000-2014: General & Personal Medical Services Statistics; 2015 onwards: Primary Care Workforce Tool. (Data as at 30 September each year). Data have been revised for all years. GP Retainers are now included for all years where they were previously excluded.

* Ophthalmic Medical Practitioners (OMPs). 2000-2017: Ophthalmic Workforce Data. (Data as at 31 December each year).

- **Northern Ireland:** Hospital staff from the Human Resource Management System / Human Resource, Payroll, Travel & Subsistence system, DHSSPS, GP staff from Medlist, Business Services Organisation;

- **Scotland:** Information Services Division, Medical and Dental Census, GP Contractor Database, Scottish Workforce Information Standard System;

- **Wales:** Welsh Government: <http://gov.wales/statistics-and-research/?topic=Health+and+social+care&lang=en>.

Reference period: Data as of 30th September, unless otherwise stated.

Coverage:

- Does not include private sector.
- Data exclude dental staff, optometrists/opticians, and locum staff.
- **Northern Ireland:** Data exclude bank staff, research fellows, clinical assistants and hospital/medical practitioners (who will likely already have been counted as General Practitioners on Medlist). Data from 2000 exclude staff on career breaks. Female physicians aged 65 years old and over have not been included due to the small number of

staff. Data excludes GPs and OMPs as age/gender breakdown is not known.

Deviation from the definition:

- **Scotland:** Data exclude Ophthalmic Medical Practitioners.
- **England:** Data are provided for Physicians aged '65-74' and '75 and over' as of 2015 onwards only. The figures previously provided were for '65 and over'.
- The age/gender breakdown does not equate to the overall Physicians total due to inconsistencies in the recording of dates of birth on the different sources:
 - a) **England:** There are a number of physicians with unknown age/gender. The age/gender breakdown also excludes a small number of Ophthalmic Medical Practitioners, which are included in total physicians. Following the change in GP collection method in 2015, a large number of GPs have an unknown gender and age so are only included in the 'Total Physician' category on this sheet (explaining the larger difference since 2015 between the total and the sum by gender and age group).
 - b) **Northern Ireland:** Age/gender data excludes General Practitioners, Ophthalmic Medical Practitioners and those physicians whose age is not known.
 - c) **Wales:** The age/gender breakdown excludes a small number of Ophthalmic Medical Practitioners. There is a small number of physicians with unknown age/gender (e.g. two in 2010).

Break in time series: 2009, 2015.

- **England:** There are breaks in the time series in 2009 and 2015 which relate to major changes in the collection methodology: 2009 - HCHS data changed from an annual census collection to monthly workforce statistics from the Electronic Staff Record (ESR). 2015 - GP data changed from an annual census collection to a quarterly collection from the Primary Care Workforce Tool (PCWT)
- **England:** Up to 2008, data are based on rolecount; since 2009, they are based on headcount.

United States

Source of data: **American Medical Association (AMA)**/Physician Characteristics and Distribution in the US, various editions. AMA Physician Masterfile unpublished data for 2014 and later. Used with the permission of AMA. <http://www.ama-assn.org/>.

Coverage:

- Head count data. Excludes non-practising physicians, retired professionals and professionals working abroad. Includes professionals who are foreigners.
- Includes active medical doctors (M.D.).
- Active practising physicians include MDs who have office-based or hospital-based practices.
- Data include residents and interns in medicine.
- Data exclude dentists and stomatologists, as well as physicians who work in administration, research and industry.
- Data include full-time and part-time physicians.
- Includes active MDs, only excluding those working in administration, research, and industry.

Deviation from the definition: The age group "65-74" includes all physicians aged 65 years old and over (including those aged 75 and over).

Calculation methods: Calculation methods match OECD definition.

Estimation method: Annual census.

Break in time series: 2003.

- From data year 2003, data includes Federal and non-Federal physicians.

NON-OECD ECONOMIES

Lithuania

Source of data:

- 2001-2006: **State Health Care Accreditation Agency** under the Ministry of Health, Register of licenses.
- Since 2007: **Health Information Centre of Institute of Hygiene**, data of entire annual survey of health establishments.

Reference period: 31st December

Break in time series: Data for 2001-2006 refer to physicians licensed to practice, data since 2007 refer to professionally active physicians (estimation).

Estimation method: As part of health institutions have not presented data on physicians by age and sex (about 13% of physicians), simple estimation has been made using age and sex structure of the existing disaggregated data.

Deviation from the definition: Age group 65-74 includes age group 75 and over as well. There is no data on active physicians for the age group 75 and over. According to licensed physicians statistics about 3.2% of all physicians with valid licenses for practice is at the age 75 and over.

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<http://www.oecd.org/health/health-data.htm>