

OECD Health Statistics 2025

Definitions, Sources and Methods

Medical graduates

Number of students who have graduated in medicine from medical faculties or similar institutions, i.e., who have completed basic medical education in a given year.

Exclusion

- Graduates in pharmacy, dentistry / stomatology, public health and epidemiology
- Individuals who have completed post-graduate studies or training in medicine

Note: In the European Union, a Directive has defined basic medical training as comprising a total of at least five years of study or 5,500 hours of theoretical and practical training provided by, or under the supervision of, a university (article 24, Directive 2005/36/EC of the European Parliament and of the Council, updated with Directive 2013/55/EC).

Sources and Methods

Australia

Source of data:

- 2004 onwards: **Australian Department of Education**. Award course completions (unpublished data).
- 2001-2003: **Australian Department of Education, Employment and Workplace Relations**. Award course completions 2008: selected higher education statistics tables (<http://www.deewr.gov.au>).
- 1989-2000: **Australian Institute of Health and Welfare** 2003. Medical labour force 1999. National Health Labour Force Series. Cat. no. HWL 24. Canberra: AIHW (also at www.aihw.gov.au).
- 1988: **Australian Institute of Health** 1991. Preparation of health professionals through tertiary education in Australia 1989. Health Workforce Information Bulletin No. 27. Canberra: AIH.
- 1980-1987: **Commonwealth Department of Community Services and Health** 1988. Characteristics of Australia's medical workforce - September 1986.

Coverage:

- The data represent award course completions leading to provisional registration as a medical practitioner.
- Data include overseas students.
- Data are based on universities in Australia - this may exclude overseas campuses of Australian-based universities.

Break in time series: Break in series in 2001 due to change in classification of field of education.

Austria

Source of data: **Statistics Austria**, University Statistics.

Reference period: Medical graduates are reported for the year of study (e.g. 20xx/yy). Up to 2016 the number of graduates was reported in 20xx. Since 2017 the data have been postponed to 20yy (t+1) according to Eurostat regulations.

Coverage:

Included are:

- Domestic and foreign graduates who have completed basic education in human medicine
- Medical graduates from public and private universities

- Primary graduation: Only a “primary graduation” is included, which is defined as the first degree in a particular discipline. “Subsequent graduations” in the same discipline are excluded (master studies, doctorates).

Excluded are:

- Dentist graduates
- Bachelor’s degrees

Deviation from the definition:

Estimation method:

Break in time series:

- 1999: Dentist graduates are excluded since 1999.

Note:

- According to the Austrian Medical Training Regulations, specialisation in "oral and maxillofacial surgery" is only possible with a degree in human medicine (not with a degree in dentistry). At the time of graduation, it is not known which specialist training a doctor will undertake after studying medicine.
- Data inconsistencies over time may result from the establishment of new (private) training institutions (graduates for the first time in 2008 and 2017 respectively).
- Due to the introduction of access restrictions and admission procedures at medical universities in Austria in 2006, the number of graduates has decreased.

Belgium

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.

- Data on graduates are based on regional statistics of which the sources are **Communauté française et Vlaamse Gemeenschap**.

Reference period: 31st December.

Coverage: Complete.

- The number of students graduating every year from medical faculties include those graduating in stomatology.

Deviation from the definition: Includes those graduating in stomatology.

Estimation method:

Break in time series: 2018. The strong increase in 2018 is linked with the reduction by one year in the length of the medical studies a few years before. In 2018, two cohorts of students graduated at the same time, explaining the high number of graduates that year.

Canada

Source of data: **Association of Faculties of Medicine of Canada**, Canadian Medical Education Statistics.

Coverage: Number of students who were awarded MD degrees by Canadian universities.

Chile

Source of data: **National Council of Education** (Consejo Nacional de Educación, CNED), <https://datosabiertos.mineduc.cl/titulados-en-educacion-superior/> and **Ministry of Education** Data Bases System (SIES): www.mineduc.cl. The Ministry of Health, through the Department of Health Human Resources Planning, collects data from the Ministry of Education. Data is reported from "Índice" which is a database held by the National Education Council, available since 2005, and SIES data bases (Superior Education Information System: www.mifuturo.cl/sies/) held by the Ministry of Education since 2007. The Universities, Professional Institutes and Technician’s Training Centers feed these databases.

Reference period:

- Annual periodicity.

- The figure provided for a given year refers to those who graduated during the previous year, because the calendar of studies in the south hemisphere is from March to January. The graduation takes place most of

the time in March or June. The incorporation in the CNED and SIES Registers takes place the following year of the graduation.

Coverage: Nationwide.

Break in time series: In 2021-22, there has been a change in the trend of graduates. Due to the COVID-19 pandemic, the graduation of many students, which should have occurred in 2021, was delayed to 2022. This explains the low number of graduates in 2021, and the high number in 2022.

Colombia

Source of data: Calculations by the Direction of Human Talent Development in Health, **Ministry of Health, and Social Protection**, from the information published by the **Ministry of National Education**.

Coverage: National.

Costa Rica

Data not available.

Czechia

Source of data: **Ministry of education, youth, and sports**.

Reference period:

Coverage: Foreigners who graduated in the Czech Republic are included since 2001. Study programmes in English are included.

Break in time series: 2001, change of coverage.

Denmark

Source of data:

- 1980-2021 **The Danish Health Data Authority**, Labour Register for Health Personnel
- 2022-2023 **The Danish Health Data Authority**, Educational Statistic, STIL Educational Statistic, STIL.

Reference period: 31st December

Coverage: The number of medical graduates from Danish schools. 1980-2023

Break in time series: In 2022, there is a break in time series, as we have changed Labour Register for Health Personnel to Educational Statistics.

Estonia

Source of data:

- Until 2004: **Statistical Office**, annual reporting.
- Since 2005: **Ministry of Education and Research**, Estonian Education Information System (EHIS).

Reference period: Given academic year.

Finland

Source of data: The students and qualifications of educational institutions statistics kept by **Statistics Finland**. The statistics cover the students and attained qualifications in education leading to a qualification or degree and are part of the StatFin database maintained by Statistics Finland. The classification of education is based on the International Standard Classification of Education 2011 (ISCED 2011).

(https://statfin.stat.fi/PxWeb/pxweb/en/StatFin/StatFin_opiskt/statfin_opiskt_pxt_11c3.px/)

Reference period: Calendar year.

Coverage: Classification of physicians consists of the 2011 ISCED code 772101.

France

Source of data: **Ministère de l'enseignement supérieur et de la recherche**, Sous-direction des systèmes d'information et des études statistiques.

For further information: <https://publication.enseignementsup-recherche.gouv.fr/FR/>.

Reference period: yearly data.

Coverage: Data are given for metropolitan France and overseas departments and territories.

Deviation from the definition: the medical graduates reported here correspond to students who have completed their training (i.e. basic training and speciality training).

Break in time series: Postgraduate studies were reformed in 2017. This led to a break in the series in 2020, the first year in which students affected by the reform graduated.

Furthermore, in 2025, some corrections were made to the old series.

Germany

Source of data: **Federal Statistical Office**, Statistics of higher education 2023 (college/university exams); Statistisches Bundesamt 2024, *Statistischer Bericht: Statistik der Prüfungen, Prüfungsjahr 2023*, table 21321-02, <http://www.destatis.de> or <http://www.gbe-bund.de>.

Reference period: examination year 2023 (winter semester 2022/2023 and summer semester 2023).

Coverage:

- Data refer to passed university examinations. Bachelor's degree and master's degree in human medicine are excluded.

- Graduates in pharmacy and dentistry are excluded.

Greece

Source of data: **Hellenic Statistical Authority (EL.STAT.), Survey on Tertiary Education (Universities and Technological Institutions)** <https://www.statistics.gr/en/statistics/-/publication/SED33/->

Reference period: 31st December.

Coverage: All the data refer to graduates from Greek universities. Data for 1986-1992 are not available as figures cannot be retrieved from publications. Data for 2000 and 2002-2004 are not available, as the number of graduates from some medical schools is missing. Data collected for the academic year t/t+1 including students that graduated in year t+1 but the whole time series are classified in year t.

Break in time series: please see above.

Hungary

Source of data:

- Up to 2012: **Hungarian Central Statistical Office** (KSH in Hungarian), Statistical Yearbook.

<http://www.ksh.hu>.

- From 2013 until 2014: **Office of Health Care Authorisation and Administrative Procedures** (EEKH in Hungarian) www.eekh.hu. Basic register.

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

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

- From 2021, **National Directorate General for Hospitals** (OKFŐ in Hungarian) www.okfo.gov.hu, Basic register.

Reference period: 31st December.

Coverage: From 1990 onwards, the data are derived from the "Report on the number of physicians, dentists, pharmacists and specialised clinical psychologists with granted diploma" collection.

Iceland

Source of data:

- As of 1996: **Statistics Iceland**, Register of graduations.

- 1980-1995: **Directorate of Health**.

Reference period: As of 1996, the calendar year.

Coverage:

- Students who graduated in medicine (who have completed basic medical education) from the medical faculty of the University of Iceland (the only one in Iceland) in a given year.
- Data exclude: graduates in pharmacy, dentistry/stomatology, public health and epidemiology, and individuals who have completed post-graduate studies or training in medicine.

Ireland

Source of data: **Higher Education Authority** (<https://hea.ie/>).

Reference period: Calendar year.

Coverage: Universities, Institutes of Technology, and designated institutions.

- From 2021, figures are rounded to the nearest 5 due to the source's disclosure control policy.

Break in time series:

From 2021: Due to change in coding structure by the HEA, data refers to all graduate students from the ISCED field/discipline code 0912 (Medicine), excluding specialists' courses. Therefore, data pre-2021 is not directly comparable due to potential impacting changes in classification in the relevant field of study and/or level.

Israel

Source of data: **Central Bureau of Statistics**. The data are based on personal records of degree recipients received from all Universities in Israel which include information on subjects of study and degree received.

Coverage: Medical graduates include recipients of second degrees in Medicine (MD). Data do not include programs intended exclusively for foreign students.

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: **Ministry of Education**; "National Register of Graduates" (<http://dati.ustat.miur.it/organization/ace58834-5a0b-40f6-9b0e-ed6c34ea8de0?tags=Universit%C3%A0&tags=Laureati&tags=Studenti>).

Reference period: Year.

Coverage: All graduated in Italy.

Deviation from the definition: None.

Estimation method: None.

Break in time series: None.

Japan

Source of data: **Ministry of Education, Culture, Sports, Science and Technology**, School Basic Survey.

Korea

Source of data:

- From 2019: **Korean Education Development Institute**, Educational Statistics.

- Until 2018: **Ministry of Education**, Statistical Yearbook on Education.

Note: A new education system for medicine was introduced in 2005, concerning graduates since 2009.

Latvia

Source of data: Until 2022 **Central Statistical Bureau (CSB)**. From 2023 - National information system for education, owner and manager Ministry of Education and Science of Latvia. Source of data prior to 2008 not clear.

Reference period: Medical graduates are reported for the academic year (e.g. 2022/2023).

Coverage: Information includes data from all universities and colleges listed in the Register of Education institutions providing accredited programmes. Domestic and foreign graduates who have completed basic medical education are covered.

Medical graduates from public and private higher education institutions and colleges are covered. The increase in the number of medical graduates in 2018 was mainly seen in the number of foreign students (86%).

Break in time series: 2008: Change in data source.

- Source of data prior to 2008 not clear.

2023: Change in data source.

Lithuania

Source of data: **Statistics Lithuania**, data of entire annual survey of education institutions. Report “Health Statistics of Lithuania” available from <https://www.hi.lt/sveikatos-statistikos-leidiniai/#--lietuvos-sveikatos-statistika>. Available on Official Statistics Portal of Statistics Lithuania <http://osp.stat.gov.lt/en>.

Reference period:

Coverage: The number of graduates fluctuates starting from 1992 due to political and economic changes in the country, changes in the status of medical institutes (to universities) and medical schools (to colleges) and changes in studying programmes. Therefore, every year different number of groups of students of medical specialties is starting the education (and after some years graduating).

Luxembourg

The University of Luxembourg does not offer full training in medicine.

Mexico

Source of data:

- 2000 to 2017: **Ministry of Education, General Directorate of Professions**.

- From 2018 onwards: **National Association of Universities and Institutions of Higher Education (ANUIES)**.

Coverage:

- Includes persons who have graduated and have obtained the professional license.

Note: In 2020, the COVID pandemic delayed the graduation process, the number of graduates being regularized in subsequent years.

Netherlands

Source of data: **Statistics of Netherlands**, Statistics of university education. Primary source: Dienst Uitvoering Onderwijs of the Ministry of Education, Culture and Science. Integral data of funded educational institutions. Participants’ higher education:

https://duo.nl/open_onderwijsdata/databestanden/ho/ingeschreven/.

Reference period:

Coverage: Graduates with a Master of Medicine, plus (post)master clinical researchers medicine. The number of medical graduates in universities is based on the “integrated higher education project”. In this project, Statistics Netherlands is working together with the Information Management Group (IBG), Higher Professional Education Council (HBO-Raad), Association of Dutch Universities (VSNU) and the Ministry of Education, Culture and Science (OCW).

Break in time series: From 2016 onwards, the number of graduates refer to students who have finished the Master of Medicine and may register as generalist medical practitioners (not as general practitioner).

- As from 2011, data have been rounded to multiples of ten.

New Zealand

Source of data: **Medical Council of New Zealand (MCNZ)**. Table 16: Graduate retention of class years 1995-2010 from ‘The New Zealand Medical Workforce in 2011’ report - <http://www.mcnz.org.nz/news-and-publications/workforce-statistics/>. Figures from 2011 were supplied directly by MCNZ.

Coverage:

- Figures supplied to OECD prior to 1995 related to final class size. 'Size of class is a list of those in final class years, as given by medical schools. Not all will necessarily be eligible for graduation'.

Break in time series: 1995. Medical Council of New Zealand has advised that figures for the number of doctors registered from the final class year is a more accurate representation of the number of doctors entering the NZ workforce than the size of class. Data supplied from 1995 have been on the basis of 'Number Registered'. 'Registered' is defined as those from the class year who have been registered at some time.

2021: Numbers refer to actual numbers of medical graduates (NZ citizens and permanent residents with MBChB) as supplied by the two medical schools (University of Otago and University of Auckland).

Norway

Source of data: **Statistics Norway.**

- Statistics Norway collects student data from the administrative systems of the various tertiary institutions. The administrative systems in tertiary institutions create data files in the format specified by Statistics Norway. Information on completed doctoral degrees is collected from NIFU

(<http://www.nifustep.no/English/Pages/default.aspx>).

- Tertiary graduation statistics include all individuals who have completed a degree of 2 years or longer from an educational institution classified by the Standard Industrial Classification as a tertiary institution. Registration of completed educational activities occurs during the period 1 October in year x, 30 September in year x+1.

- See http://www.ssb.no/english/subjects/04/02/40/eksuvh_en/ and then 'About the statistics'.

Reference period:

Coverage: Complete coverage as statistics are based on enumeration of graduates in tertiary education. Sampling errors and non-response errors do not exist.

Note: The increase in medical graduates in 2023 reflects delays from previous years. COVID-19 disruptions in 2020–2021 postponed exams and clinical training. Curriculum reforms between 2015 and 2021 caused minor timing misalignments. Additionally, a shortage of LIS 1 internship positions in 2022 led some students to delay their graduation to align with application windows.:

Break in time series: Individually based data on completed education have been published annually since they were first collected in 1973/74 (academic year). Most variables are comparable, but some have changed. The revised Norwegian Standard Classification of Education

(http://www.ssb.no/english/subjects/04/90/nos_c751_en/) recoded education courses to enable comparison of newer and older data (also including a recoding to ISCED-97). While education courses are reasonably comparable over time, other variables are not (e.g. coding of institution types).

Poland

Source of data:

- Until 1990: publication of the Ministry of National Education, "Higher education, basic data".

- From 1990: **Statistics Poland**, reports S-10.

Break in time series: 1990 due to change of data source.

Portugal

Source of data:

- Since 2011: **Directorate General of Statistics of Education and Science, Ministry of Education and Science.**

- Between 2006 and 2010: **Ministry of Science, Technology and Higher Education.**

- Up to 2005: **Ministry of Education.**

Reference period: End of academic year.

Coverage:

- Data represent the total number of graduates.

Slovak Republic

Source of data:

- Until the year 2009: **National Health Information Center** (Submitted data are from the Institute of Information and Prognosis of Education.).
- From the year 2010: directly the Institute of Information and Prognosis of Education, from the year 2014 under the new name the **Slovak Centre of Scientific and Technical Information** (www.cvtisr.sk (<http://www.cvtisr.sk/>)).

Slovenia

Source of data: **Ministry of Education.**

Reference period: 31st December.

Coverage: graduates from Slovenian institutions (schools).

Spain

Source of data:

- Since 2011: **Ministry of Universities** from **the Statistics of University Students:** http://estadisticas.mecd.gob.es/EducaDynPx/educabase/index.htm?type=pcaxis&path=/Universitaria/Alumnado/EEU_2022/GradoCiclo/Egresados/&file=pcaxis&l=s0
- Up to 2010: **National Statistics Institute** (INE). University Education Statistic. https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176744&menu=resultados&idp=1254735573113

Reference period: Academic Year: the data for 2021 corresponds to the graduates of the 2020-21 academic year.

Sweden

Source of data:

- *Until 1995:* **National Board of Health and Welfare**. LOVA-register.
- From 1996: **Swedish Higher Education Authority** (UKÄ).

Reference period:

- Until 1995: 1st November.
- From 1996: 31st December.

Coverage: Data refers to medical graduates in Sweden in a given year.

- Full coverage.

Switzerland

Source of data: **Federal Statistical Office (FSO)**, Neuchâtel; Students and Degrees of Higher Education Institutions (SHIS-studex); yearly census.

Reference period: Annual census.

Coverage: Full coverage based on population data (full-survey).

Türkiye

Source of data:

- Up to 2013: **General Directorate for Health Services, Ministry of Health** and **ESPC Higher Education Statistics.**
- From 2013 onwards: **Council of Higher Education**, Higher Education Statistics (main source).

Reference period: End of the academic year.

Coverage: Data refer to medical school graduates having graduated after a 6-year basic medical education at university.

- The rise in the number of medical graduates in 2015-16 is due to a new faculty of medicine and to the increase in quotas in universities.

United Kingdom

Source of data:

- 2002-onwards: **Higher Education Statistics Agency (HESA)**, <https://www.hesa.ac.uk/data-and-analysis>. In 2020, data have been revised for the academic years 2014/15 through to 2016/17.

- 1992-2001: **Higher Education Funding Council for England (HEFCE)**, 'UK Graduate Output 1991/92 to 2012/13'.

Reference period: Period covers 1st August to 31st July. From 2002 onwards, the reference period covers the financial year. The academic year x/y is reported in year y (e.g. the academic year 2017/18 is reported under 2018).

Coverage: UK.

- Medical qualifiers have been defined as qualifiers from the following principal subjects:
Medicine - (A1) Pre-clinical medicine and (A3) Clinical medicine.

Methodology: Data are restricted to only include those who qualified.

United States

Source of data: Centers for Disease Control and Prevention/**National Center for Health Statistics/ Health, United States**, various years. Association of American Medical Colleges: AAMC Data Book, Statistical Information Related to Medical Schools and Teaching Hospitals, Washington, DC. 2004, 2005, (Copyright 2005, 2006: Used with the permission of the AAMC) and unpublished data.

<http://www.cdc.gov/nchs/hs.htm>.

Coverage: National.

Deviation from the definition: Includes allopathic and osteopathic medical graduate students. Excludes dentistry graduate students.

- Numbers of graduates are reported at the end of the academic year.

Estimation: Annual census.

Break in time series: No breaks in time series.

NON-OECD ECONOMIES

Bulgaria

Source of data: **National Statistical Institute**,

https://infostat.nsi.bg/infostat/pages/module.jsf?x_2=164

<https://nsi.bg/en/node/3388>

Until 2022:

Report on tertiary education for educational-qualification degrees 'Master', 'Bachelor' and 'Professional bachelor' as of 15 November - exhaustive annual survey.

From 2023:

An administrative register of the Ministry of Education and Science.

Reference period:

Until 2022:

From 16.11 of the previous year (t-1) to 15.11 of the index year (t). E.g., data for year 2010 contains number of graduates from 16.11.2009 to 15.11.2010.

From 2023:

Calendar year.

Coverage: Full coverage.

The survey covers all authorized higher schools (colleges, universities, and equivalent higher schools) under the regulation of Higher Education Act.

The specialties for medical doctors, dentists, pharmacists, midwives, and nursing are taught in public higher schools. Ministry of Education and Science is determining annually plan scheme (limits for new entrants) for each specialty in public higher schools, which varies at different years.

Break in time series: 2023 - Break in the time series due to a change of the data source.

Croatia

Source of data: Croatian Bureau of Statistics, Statistical Yearbook of the Republic of Croatia. Ministry of Science and Education of the Republic of Croatia.

Reference period: From the year 2008, data are provided by the Ministry of Science, Education and Sports. Data refers not on calendar, but on academic years. For example, registered data for the year 2008, refers to the 2007/2008 academic year (01.10.2007 – 30.09.2008).

Cyprus

It should be mentioned that up to 2018, all the physicians practising in Cyprus have been trained abroad, since no medical faculties existed in Cyprus Universities. **The first physicians graduated from universities in Cyprus in 2019.**

Source of data: Tertiary education statistics, Statistical Service of Cyprus.

Reference period: Data for year n referring to the academic year (n-1)-n.

Coverage: Complete coverage of all graduates by academic qualification achieved.

Deviation from the definition: No deviation.

Estimation method: No estimation, actual data used.

Break in time series: No break.

Romania

Source of data: **Ministry of Education** for the period 1990-1997 data on graduates and **National Institute of Statistics** since 1998, Activity of Education Units (Statistical data on tertiary education) – annual survey performed by NIS.

Reference period: academic year.

Break in time series: 1996 (Since 1996 including private sector).

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<https://www.oecd.org/en/data/datasets/oecd-health-statistics.html>