

OECD Health Statistics 2023

Definitions, Sources and Methods

Professionally active dentists

Professionally active dentists are practising dentists and other dentists for whom their education in dentistry / stomatology is a prerequisite for the execution of the job.

Inclusion

- Dentists who provide services for patients
- Dentists working in administration and management positions requiring education in dentistry
- Dentists conducting research into oral health and dental care
- Dentists who participate in public action to maintain or improve standards of oral health and dental care
- Dentists preparing scientific papers and reports

Exclusion

- Dentists who hold a post/job for which education in dentistry is not required
- Unemployed dentists and retired dentists
- Dentists working abroad

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 Allied Health Practitioners Data. Data request. Also available at <http://hwd.health.gov.au/>. Data are as at the end of the re-registration period for the profession in the reference year.
- 2012: **Australian Institute of Health and Welfare 2014**. Dental workforce 2012. National health workforce series no. 7. Cat. No. HWL 53. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2009 and 2011: **Australian Institute of Health and Welfare 2013**. Dental workforce 2011. National health workforce series no. 4. Cat. no. HWL 50. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2006: **Balasubramanian M, Teusner D** 2011. Dentists, specialists and allied practitioners in Australia: Dental Labour Force Collection, 2006. Dental statistics and research series no. 53. Cat. no. DEN 202. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2003: **Teusner DN, Chrisopoulos S & Brennan DS** 2007. Geographic distribution of the Australian dental labour force, 2003. Dental statistics and research series no. 37. Cat. no. DEN 168. Canberra: AIHW. Also available at www.aihw.gov.au.
- 2000: **Teusner DN & Spencer AJ** 2003. Dental labour force, Australia 2000. Dental statistics and research series no. 28. AIHW Cat No Den 116. Canberra: AIHW. Also available at www.aihw.gov.au.
- 1992-2005: **AIHW Dental Statistics and Research Unit** 2008. Dental labour force in Australia, 2005. AIHW Cat. No. DEN 172. Canberra: AIHW (and previous issues). Also available at www.aihw.gov.au.
- 1987-1991: Spencer J et al 1993. The impact of change in oral health status on dental education, workforce.

NHMRC Expert Panel.

- 1980-1986: Barnard, PD 1983. Dentist workforce. Figures and tables, 1970-1982. **Australian Dental Association**. Barnard, PD (ed). Australian dentistry, facts and figures. **Australian Dental Association** (annual).

Coverage:

- From 2013, data exclude dentists with non-practising registration.

- From 2011, data regarding professionally active dentists include those dentists who reported working in dentistry in the week before the survey. Hence, they are considered to be an 'employed dentist'.
- Census data report the respondents' main occupation during the week.
- National definition used for the data: a dentist diagnoses and treats diseases, injuries and abnormalities of teeth, gums and related oral structures, and prescribes and administers restorative and preventive procedures. A 5-year degree is required.
- Data include those currently working in dentistry in general and restricted practices, administration, research and other not elsewhere classified.

Break in time series:

- From 2011, data are based on estimates derived from the National Health Workforce Data Set (NHWDS). The data set contains information on the demographic and employment characteristics of dental practitioners (dentists, dental hygienists, dental prosthetists, dental therapists and oral health therapists) registered in Australia. Data are collected via registration forms and a survey instrument administered by the Australian Health Practitioner Regulation Agency, in conjunction with the annual registration renewal process for dental practitioners. Data prior to 2011 were supplied based on data from the now superseded state and territory dental boards and councils. For more information see Appendix A of *Dental workforce 2011* at <http://www.aihw.gov.au/publication-detail/?id=60129542638>.
- Comparison of 2011 and later data with data prior to 2011 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

Data not available.

Belgium

Data not available.

Canada

Data is not available. Data is rather available for dentists licensed to practice that include some inactive dentists.

Chile

Data not available. These data exist only for the public sector (not reported in *OECD Health Statistics*). At the national level (public and private), data are available only for "Dentists licensed to practice".

Colombia

Source of data:

- From 2012 onwards: Calculations by the Direction of Human Talent Development in Health, **Ministry of Health, and Social Protection**.
- 2001-2011: (Ruiz, 2008), Health Human Resources in Colombia - 2008. Balance, skills, and foresight. Center of Studies for Development and Ministry of Social Protection (now the Ministry of Health and Social Protection) - 2009.

Coverage: National.

Estimation method:

- The estimation of stock considers the inputs (professionals graduates or with recognized diplomas in each period) and fewer withdrawals (adjustments for migration, retirement, and death).
- Estimation of the stock of practising dentists, who may not be exercising, without distinction of their field of exercise. Data thus include dentists working in areas that do not have direct contact with patients (e.g., dentists working in administration and research).
- Data presented are estimates.

Costa Rica

Data not available.

Czech Republic

Data not available.

Denmark

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

Reference period: 31st December.

Coverage:

- The term of dentist covers all persons qualified as a dentist with or without authorization to practice independently in the country.

Estonia

Data not available.

Finland

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

Reference period: At the end of the calendar year.

Estimation method: For the years 2004-2014, the numbers are provisional and values are not accurate due to possible inconsistencies in how occupations are classified in our database.

France

Source of data: **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.

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

- **From 2011** (01/01/2012): **RPPS** (Répertoire partagé des professionnels de santé). Data were revised in 2023 (years 2011 to 2021).

Reference period: 31st December year N (approximated by data of January 1st year N+1).

Coverage:

- Data refer to metropolitan France and D.R.O.M. (overseas departments and regions).

- Data cover practising dentists and also the following categories: dentists employed in the pharmaceutical industry, dentists employed in odontological research, dentists employed in firms or government departments and dentists practising as dental surgeons. They do not include dentistry students undergoing initial training or who are undergoing specialist training. They include dentists who specialize in neo-facial orthopaedics or who are in the process of specialising. They include physicians who are specialists in stomatology.

- All public and private hospitals, private clinics and teaching establishments are covered.

Break in time series: In 2011, there is a break in the series due to the change in the data source (ADELI before 2011, RPPS since 2011).

Germany

Source of data: **German Dental Association**, Membership statistics of the dental chambers 2021 and **German Medical Association**, Medical practitioner statistics 2021; special calculation by the Federal Statistical Office on base of data from the German Dental Association and the German Medical Association; <http://www.gbe-bund.de> or <http://www.bzaek.de> or <http://www.baek.de>.

Reference period: 31st December.

Coverage:

- Included are practising dentists and dentists who are involved in research or who work in their capacity as a dentist in industry or administrative bodies (head-count data).

- The data exclude qualified dentists working abroad, unemployed and retired dentists and students who have not yet graduated.
- The number of dentists includes those undergoing further training for specialisation and physicians with specialty “dental, oral and maxillofacial surgery”.

Greece

Data not available. It is not feasible to separate unemployed dentists from the available data. For this reason, only data for dentists licensed to practice are provided.

Hungary

Data not available.

Iceland

Source of data:

- 2011 and onwards: Icelandic Dentists' Association.
- 2001-2010: **The Directorate of Health** - Register of dentists.
- Until 2001: **Icelandic Dentists' Association**. Reference period: 31st December.

Coverage:

Before 2011:

- Includes: Dentists who are 70 year old and younger with a permanent residence in Iceland (Icelanders or foreign).

As of 2011:

- Number of individuals registered as professionally active dentists by the Icelandic Dentists' Association.

Break in time series: 2011.

Ireland

Data not available.

Israel

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

Reference period: End of the year.

Coverage: Data are for all licensed dentists under age 67, which is the retirement age in Israel since the early 2000's. The data include only dentists with valid licenses at the end of each reference year.

- At the beginning of the 1990s, there was a large immigration wave from the former USSR countries to Israel which included a large number of dentists who received a license to work in Israel.

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:

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

Reference period: 31st December.

Coverage: Dentists professionally active (see estimation method).

Deviation from the definition: None

Estimation method:

- From 2013 onwards, data on the “Continuing Medical Training program” have been used to estimate the practicing personnel and the professionally active. 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 and the professionally active was done by counting, among all registered professionals, those who acquired at least one credit in the last three years.

- In Italy, there are no dentists who practice a job (research or public health) without providing services to patients too. So it was decided to use the same data for practising and professionally active dentists, from 2013 onwards.
- 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 of data source and calculation method.

Japan

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

- Data consist of dentists working at medical institutions (including those working as clinical teaching staff at medical school hospitals), healthcare facilities for the elderly requiring long-term care and integrated facility for medical and long-term care, and dentists working in the areas such as education, research, administration, occupational health and other public health fields. Data include orthodontists and foreign dentists licensed to practice. Data exclude dentists working abroad and not acting dentists.
- Data include dentists-in-training.

Korea

Data not available.

Latvia

Source of data:

- Since 2005: **Health Inspectorate of Latvia**; Register of Medical Practitioners and Medical Support Staff.
- 2004 and earlier: **Health Statistics and Medical Technologies State Agency**; Statistical Report No.17 "Report About Medical Staff".

Reference period: 31 December.

Coverage: Including maxillo-facial surgery, dental and oral surgery.

Break in time series: 2005: Change in data source.

Lithuania

Source of data: **Health Information Centre of Institute of Hygiene**, data of entire annual survey of health establishments. Report “Health Statistics of Lithuania”, available from <http://www.hi.lt/health-statistic-of-lithuania.html>. Available on Official Statistics Portal of Statistics Lithuania <http://osp.stat.gov.lt/en>.

Reference period: 31st December.

Coverage:

- The number of professionally active dentists at the end of the year includes all active dentists working in healthcare, public health, health administration, health education and research institutions (public or private), including healthcare institutions under other ministries than the Ministry of Health. Interns and residents, i.e. dentists in postgraduate training, are also included. The number of dentist excludes: dentists working outside the country; dentists on the retired list and not practising or unemployed; dentists working outside health services, e.g. employed in industry, etc.

- The number of professionally active dentists is collected by annual survey of healthcare establishments. Response rate for private healthcare establishments is about 70%. Due to non-response of part of private healthcare establishments the number of dentists could increase by approximately 400 persons (or 17%). But such estimation is not done as it is not clear how many of not responded institutions are actually working.

Break in time series: 1997, when compulsory annual survey of private health establishments had started, and as most of the private healthcare establishments were dentist institutions, the number of dentists had increased.

Luxembourg

Source of data: **Ministère de la Santé**. Register of doctors and health professionals.

Reference period: 31st December.

Break in time series: 2014.

- From 2014: stomatologist, dental and maxillofacial surgeons are excluded.

Mexico

Data not available.

Netherlands

Source of data: **Social Statistical Database of Statistics Netherlands, BIG Register** (official register of healthcare professionals) (1999-today).

Reference period: The last Friday before Christmas.

Coverage: Professionally active dentists are estimated as all licensed dentists who are economically active and live in the Netherlands.

Break in time series:

- From 2017 onwards: the license register required re-registration for dentists. The register required dentists to have been practising with a certain minimum amount working hours in the last 5 years in their professional field. This means that the number of economically active and licensed dentists is better suited for the estimate of the number of practising dentists.

- In 2015 the register has carried out a check on foreign medical professionals. The result has been an increase in the figure of licensed dentists of around 400.

- Up until 2017, figures have been rounded to 5.

New Zealand

Source of data: **NZ Dental Council Workforce Survey**, based on survey data from the New Zealand Dental Council's workforce survey commissioned by the Ministry of Health, National Collections and Reporting, Information Group, National Health Board.

Coverage:

- The Health Workforce Data Collection consists of 14 stand-alone databases of annual survey information for each of New Zealand's registered health professions: doctors, nurses, midwives, dentists, chiropractors, medical laboratory technologists, medical radiation technologists, optometrists, dispensing opticians, psychologists, occupational therapists, dieticians, podiatrists, and physiotherapists.

- Included: dentists in hospital, stomatologists, odontologists, and odontologists.

- Includes dentists in administrative, academic or research functions who are not providing direct care to patients.

- Dentists are included in the survey when they are recorded on the Dental Register. The basic training is a five-year course leading to the degree of Bachelor of Dental Surgery. The Dental Register includes both NZ dental graduates and dentists who graduated overseas but meet the Dental Council's registration requirements.

- As with doctors, all dentists are included in the data, as long as they are on the Dental register and are working four or more hours per week in dentistry. The principal type of work they are doing may not necessarily be dental work.

Note: The latest survey data available are for 2009.

Norway

Source of data: **Statistics Norway**; Statistics on health-care personnel. Administrative registers. See <http://www.ssb.no/hesospers/en/>.

Reference period: 3rd week of November.

Coverage: The figures provided cover all professionally active dentists in all industries.

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).

Poland

Source of data: **Ministry of Health, Ministry of Interior and Administration, Ministry of National Defence and Statistics Poland.**

- 2019: estimates based on administrative sources, i.e. register of licensed dentists (Polish Chamber of Physicians), files provided by Social Insurance Institution and registers of healthcare establishments including dentist's private

Reference period: 31st December.

Break in time series:

- 2019: The new calculation method based on administrative sources provides more robust results. The data until 2018 are underestimated due to high non-response rates in the survey.

Portugal

Data not available. (Data available for all dentists licensed to practice only.)

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.

Reference period: 31st December.

Coverage: Includes occupation "dentist" (according to the ISCO-08 classification, code 2261) performed by all healthcare providers.

Slovenia

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

Reference period: 31st December.

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

- The variations between 1992 and 1996 might be explained by a problem of under-reporting.

Spain

Data not available. (Data based on Economically Active Population Survey and referring to CNO-11 codes at 4-digit level (Spanish equivalence of ISCO-08) are not available.)

- Up to 2010: Professionally active dentists are included in the number of professionally active physicians at 3 digit level of the National Occupations Classification (CNO-94), the Spanish equivalence of ISCO-88, in the Economically Active Population Survey.

(Data are available for the total number of dentists licensed to practice.)

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:

- In addition to the NACE-codes used to identify practicing dentists the NACE-codes are used to identify professional active dentists:

75.1 - Public authorities.

80.3 - Higher education establishments.

- 100% coverage until year 2020.

- The entire time series has been revised in 2023.

Switzerland

Data not available.

Türkiye

Source of data:

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

Reference period: 31st December.

Coverage:

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

Break in time series: 2000, 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.

United Kingdom

Data not available.

United States

Source of data: **American Dental Association (ADA)/Survey Center.** Reprinted with permission. All rights reserved. Any form of reproduction is strictly prohibited without prior written permission of American Dental Association. <http://www.ada.org/>.

Coverage: National.

- Professionally active dentists in this report are those who are listed in the ADA masterfile as licensed, not retired, living in the 50 states or the District of Columbia, and having a primary occupation of private practice (full- or part-time), dental school/faculty staff member, armed forces, other federal services (i.e., Veterans' Affairs, Public Health Service), state or local government employee, hospital staff dentist, graduate student/intern/resident, or other health/dental organization staff member. This report excludes dentists who are located in U.S. territories or U.S. armed forces overseas.

- U.S. estimates represent professionally active dentists.

- U.S. data are derived from headcounts of full-time and part-time dentists.

- U.S. estimates include public health dentists, general dentists, endodontists, oral pathologists, oral surgery dentists, orthodontists, pediatric dentists, periodontists, and prosthodontists.

Deviation from the definition: Data match the OECD definition.

Estimation method: Annual census.

Break in time series: No breaks in time series.

Note: Prior estimates of active dentists prior to 2001 were the result of a periodic American Dental Association (ADA) survey of all dentists in the U.S., supplemented with estimation methods conducted by an economic consulting firm to compensate for incomplete or unreturned surveys. Given the change in methodology, we discourage the use of pre-2001 numbers. Therefore, such estimates were excluded from the present time trend data.

- The American Dental Association (ADA) Masterfile contains the most up-to-date information on dentists in the United States. The Masterfile is a database of all dentists, practicing and non-practicing, in the United States. It is updated through a variety of methods, including reconciliation with state licensure databases, death records, various surveys and censuses of dentists carried out by the ADA.

NON-OECD ECONOMIES

Bulgaria

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

Reference period: 31st December.

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

Remark: 2018 data are revised due to technical error.

Romania

Source of data: **National Institute of Statistics**, The activity of the sanitary and healthcare network – annual survey performed by NIS.

Reference period: data as of 31st December.

Coverage:

- From 1980 to 1998, data refer only to the public sector. From 1999 the data cover all sanitary dentists from public and private sector.
- Dentists (ISCO/COR 2222) are defined as the persons who have completed studies in stomatology at university level and who are licensed to practice. Dentists' tasks include: making diagnosis, giving necessary dental treatment, giving surgical, medical and other forms of treatment for different types of dental and oral diseases and disorders, establish curative and preventive dental measurement, relished reports and participate to scientific communication in oral health and dental care.
- The number of professionally active dentists include: dentists from health insurance field or that work in other institutions involved in the administration of the healthcare system (e.g. public health institutes).
- The number of professionally active dentists doesn't include: dentists who work in education field as teachers, students, unemployed dentists in health field, retired dentists that are not still working, and dentists working abroad, dentists working in sales field even if they work in medical sales (ex. medical drugs).

Deviation from the definition:

- From 1980 to 1998, data refer only to the public sector
- Until 2019, data doesn't include oral and maxillofacial surgeons.

Break in time series: 1999.- 2019 - Beginning with 2019, oral and maxillofacial surgeons were included in the number of practicing physicians.

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