

# OECD Health Statistics 2023

## Definitions, Sources and Methods

### Physicians by categories

Three main categories and eight sub-categories selected for the common module:

Generalist medical practitioners (ISCO-08 code: 2211)

- General practitioners
- Other generalist (non-specialist) medical practitioners

Specialist medical practitioners (ISCO-08 code: 2212)

- General paediatricians
- Obstetricians and gynaecologists
- Psychiatrists
- Medical group of specialists
- Surgical group of specialists
- Other specialists not elsewhere classified

Medical doctors not further defined (ISCO-08 code: 2210)

The [breakdown by categories](#) should be provided for [practising physicians](#) where possible. (If not possible, the data can be reported for professionally active physicians or physicians licensed to practise).

Notes:

- The following criteria are proposed in order to avoid double counting of doctors who have more than one specialty: 1) the predominant (main) area of practice of doctors; or 2) the last specialty for which doctors have received registration.
- The number should be at the end of the calendar year.

Generalist medical practitioners (ISCO-08 code: 2211)

[Generalist medical practitioners](#) do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities.

#### Inclusion

- General practitioners
- District medical doctors - therapists
- Family medical practitioners
- Primary healthcare physicians
- Medical doctors (general)
- Medical officers (general)
- Medical interns or residents specialising in general practice or without any area of specialisation yet

#### Exclusion

- Paediatricians
- Obstetricians and gynaecologists
- Specialist physicians (internal medicine)

- Psychiatrists
- Clinical officers
- Feldschers

**Note:** Medical interns and residents who have completed a basic medical university education and are undertaking postgraduate clinical training are included here, if they are specialising in general practice or if they have not chosen their area of specialisation yet. Although in some countries 'general practice' and 'family medicine' may be considered as medical specialisations, these occupations should always be classified here.

## General practitioners

**General practitioners** (or “family doctors”) assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities.

### Inclusion

- General practitioners
- District medical doctors - therapists
- Family medical practitioners (“family doctors”)
- Medical interns or residents specialising in general practice

### Exclusion

- Paediatricians
- Other generalist (non-specialist) medical practitioners

### **Notes:**

- Although in some countries ‘general practice’ and ‘family medicine’ may be considered as medical specialisations, these occupations should always be classified here.
- Offices of general medical practitioners (HP.3.1.1 in SHA 2011) include establishments of doctors who hold a degree in medicine and are primarily engaged in the independent practice of general medicine.

## Other generalist (non-specialist) medical practitioners

**Other generalist medical practitioners** do not limit their practice to certain disease categories or methods of treatment. They do not work in an area of specialisation.

### Inclusion

- Generalists not included in general practitioners
- Generalist/non-specialist practitioners working in hospital or in other settings
- Medical interns or residents without any area of specialisation yet

### Exclusion

- General practitioners (“family doctors”)
- Paediatricians
- Occupational medicine physicians

## Specialist medical practitioners (ISCO-08 code: 2212)

**Specialist medical practitioners** diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using specialised testing, diagnostic, medical, surgical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They specialise in certain disease categories, types of patient or methods of treatment and may conduct medical education and research in their chosen areas of specialisation.

### Inclusion

- Paediatricians
- Obstetricians and gynaecologists
- Psychiatrists
- Medical specialists
- Surgical specialists
- Medical interns or residents training for a specialty

### Exclusion

- General practitioners
- Dental practitioners
- Dental surgeons
- Oral and maxillofacial surgeons

**Note:** Medical interns and residents training as specialist practitioners (except general practice) are included here. Although in some countries 'stomatology' may be considered as a medical specialisation, stomatologists should be included in dentists.

## General paediatricians

**Paediatricians** deal with the development, care, and diseases of children.

### Inclusion

- Medical interns or residents specialising in paediatrics

### Exclusion

- Paediatric specialties (e.g. child psychiatry, child/paediatric surgery, child/paediatric gynaecology, paediatric cardiology, paediatric oncology, etc.)

## Obstetricians and gynaecologists

**Obstetricians** specialise in pregnancy and childbirth. **Gynaecologists** are concerned with the functions and diseases specific to women and girls, especially those affecting the reproductive system.

### Inclusion

- Child/paediatric gynaecology
- Reproduction medicine
- Genetics
- Medical interns or residents specialising in obstetrics and gynaecology

## Psychiatrists

**Psychiatrists** are medical doctors who specialise in the prevention, diagnosis and treatment of mental illness. They have post-graduate training in psychiatry and may also have additional training in a psychiatric specialty.

### Inclusion

- Psychiatry
- Neuropsychiatry
- Adult and geronto-psychiatry
- Child psychiatry
- Psychiatry - addictive disorders / diseases
- Social psychiatry

- Psychiatric rehabilitation
- Medical interns or residents training in these psychiatric specialties

#### Exclusion

- Psychologists

### **Medical group of specialists**

**Medical specialists** are doctors who specialise in the diagnosis and non-surgical treatment of physical disorders and diseases.

#### Inclusion

- Internal medicine
- Cardiology
- Endocrinology
- Gastroenterology
- Pulmonology
- Respiratory medicine
- Oncology
- Gynaecologic oncology
- Immunology
- Rheumatology
- Neurology
- Oto-rhino-laryngology
- Radiology
- Infectious diseases
- Microbiology-bacteriology
- Haematology
- Dermatology
- Pathology
- Occupational medicine, Community medicine (including hygiene, epidemiology and assessment medicine)
- Medical interns or residents training in these specialties

#### Exclusion

- Surgery
- Gynecology and obstetrics
- Paediatrics
- Psychiatry
- General practice

### **Surgical group of specialists**

**Surgical specialists** are doctors who specialise in the use of surgical techniques to treat disorders and diseases.

#### Inclusion

- General surgery
- Neurological surgery
- Plastic surgery
- Orthopaedics
- Ophthalmology
- Urology, nephrology
- Other types of surgery
- Anaesthesiology

- Intensive care
- Accident and emergency medicine
- Medical interns or residents training in these specialties

#### Exclusion

- Dental surgery
- Oral and maxillofacial surgery

### Other specialists not elsewhere classified

#### Inclusion

- Other specialists not elsewhere classified
- Medical interns or residents training in these other specialties

### Medical doctors not further defined (ISCO-08 code: 2210)

#### Inclusion

- Medical practitioners who cannot be classified in the other categories
- Medical interns or residents who cannot be classified in the other categories

## Sources and Methods

### Australia

#### Source of data:

- 2013 onwards: **Department of Health (DoH)**. NHWDS Medical 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**. Medical workforce 2012. National health workforce series no. 8. Cat. No. HWL 54. Canberra: AIHW. Also available at [www.aihw.gov.au](http://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](http://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](http://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.
- 1980-1983: **Permail Pty Ltd**, as in Grant C & Lapsley HM, 1993. The Australian health care system, 1992. Sydney: School of Health Services management, University of New South Wales (and previous editions). Data are for registered doctors on Permail mailing list.

#### 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.
- 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](http://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.

Note: In 2011, the methodology used to report the data on physicians by categories was very different. Hence the 2011 numbers are not comparable with any other years. It has been decided to remove the 2011 Australian numbers from the database.

### ***Generalist medical practitioners (and sub-categories)***

#### Coverage:

- General Medical Practitioners is taken here to mean a primary care practitioner, i.e. a practitioner engaged in general practice or in the primary care of patients. This category includes practitioners recognised by Medicare as VRGPs, RACGP Fellows, RACGP trainees and other medical practitioners whose main practice is un-referred patient attendances. Education required is 5-6 year degree plus a 1-year internship.
- Data also include hospital non-specialists.

Break in time series: Since 2011, primary care practitioners who did not self-identify as general practitioners may have been counted as 'Other clinician'. Other clinicians are not included in this count. Due to a change in survey methods in 2010, data for general practitioner since 2011 are not directly comparable with earlier data on primary care practitioners.

### ***General practitioners***

#### Coverage:

- Primary care practitioners, i.e. practitioners engaged in general practice or in the primary care of patients. This category includes practitioners recognised by Medicare as VRGPs, RACGP Fellows, RACGP trainees and other medical practitioners whose main practice is un-referred patient attendances. Education required is 5-6 year degree plus a 1-year internship.

#### Break in time series:

- Specialists in general practice are included since 2011.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Data include hospital non-specialists.

### ***Specialist medical practitioners (and sub-categories)***

#### Coverage:

- Data include main specialty of practice for specialists, as well as separately derived main specialty of training for specialists-in-training.
- Specialists: a medical practitioner with a qualification awarded by, or which equates to that awarded by, the relevant specialist professional college in Australia. Specialist recognition is normally based on the completion of a program of approved supervised training covering a minimum of six years after initial medical graduation and an examination leading to the award of a higher qualification.

### ***Medical group of specialists***

#### Coverage/Break in time series:

- For 2009 and earlier, the Medical group of specialties includes internal medicine specialties (cardiology, clinical genetics, clinical haematology, clinical immunology, clinical pharmacology, endocrinology, gastroenterology, general medicine, geriatrics, infectious disease, medical oncology, neurology, nuclear medicine, renal medicine, respiratory and sleep medicine, rheumatology and thoracic medicine), pathology (anatomical pathology, clinical chemistry, cytopathology, forensic pathology, general pathology, haematology, immunology and microbiology), dermatology, radiation oncology and diagnostic radiography.

- From 2012, the Medical group of specialties includes specialists with a primary specialty of cardiology, clinical genetics, clinical pharmacology, endocrinology (physician), gastroenterology and hepatology, general medicine, geriatric medicine, haematology (physician), immunology and allergy (physician), infectious diseases, medical oncology, nephrology, neurology, nuclear medicine (physician), respiratory and sleep medicine, rheumatology, specialist physician, diagnostic radiology, diagnostic ultrasound, nuclear medicine (radiology), dermatology, radiation oncology, general pathology, anatomical pathology (including cytopathology), chemical pathology, haematology (pathology), immunology (pathology), microbiology, forensic pathology, and specialist pathologist.

### ***Surgical group of specialists***

#### Coverage/Break in time series:

- For 2009 and earlier, the Surgical group of specialties includes anaesthesia, intensive care, cardiothoracic surgery, general surgery, neurosurgery, ophthalmology, oral maxillo facial surgery, orthopaedic surgery, otolaryngology, paediatric surgery, plastic surgery, urology, vascular surgery and other surgery.
- From 2011, the Surgical group of specialties includes specialists who listed their specialty as anaesthesia, emergency medicine, intensive care medicine, ophthalmology or surgery.

### ***Other specialists not elsewhere classified***

#### Coverage/Break in time series:

- For 2009, Other specialties not elsewhere classified include medical administration, occupational medicine, pain medicine, palliative care, public health medicine, rehabilitation medicine and other.
- From 2012, Other specialties not elsewhere classified include specialists who listed their main specialty, and specialists-in-training who listed their main specialty-in-training, as oral and maxillofacial surgery (small number); all paediatrics and child health specialties excluding General paediatrics, Neonatal and perinatal medicine and Specialist paediatrician; General practice (small number); Rehabilitation medicine; Public health medicine; Occupational and environmental medicine; Medical administration; Palliative medicine; Sport and exercise medicine; Sexual health medicine; Addiction medicine; and Pain medicine.

### ***Medical doctors not further defined***

#### Coverage/Break in time series:

- 2009 data are for main specialty of practice for specialists. For 2008 and earlier years, data also include specialists-in-training.
- For 2008 and earlier, Medical doctors not further defined include medical administration, occupational medicine, pain medicine, palliative care, public health medicine, rehabilitation medicine and other.
- In 2009, Medical doctors not further defined include physicians whose area of practice is unknown.
- For 2012 onwards, Medical doctors not further defined include ‘other clinicians’ (that is clinicians that did not identify as general practitioners, specialists, hospital non-specialists or specialists in training) and ‘specialists in training’ who were not in a recognised specialist training program.

## **Austria**

Source of data: **Austrian Medical Association**, Register of Practising Physicians.

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

#### 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 medical interns and residents. However they cannot be separated by specialisation or progress of training, hence they are all reported in the category “Medical doctors not further defined”.
- Excluded are dentists and stomatologists.
- Excluded are dental and maxillofacial surgeons (since 2007).
- 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.

#### Note:

- Since 2002 legally qualified and approbated foreign physicians are included.
- Until 2015, the Austrian Medical Association double counted physicians who had graduated as general practitioners as well as specialists. This concerns about 200 to 300 cases in the latest years. Therefore the sum of physicians by categories is higher than the total number of practising physicians until 2015.
- In 2018 there was a temporary change in the allocation algorithms for the different types of doctors (general practitioner, specialists), which led to a data variation in time series. For this reason, the 2018 numbers are not shown.

Break in time series: Mentioned (when existing) in each category below.

### ***General medical practitioners***

Coverage: Includes all general practitioners (with and without a private practice).

Break in time series:

- 2013: 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. Up to and including 2012, these physicians were not required to register.

- 2016: The group of other general medical practitioners also included approbated foreign physicians up to and including 2015. Since 2016, it has no longer been possible to register as an approbated doctor. Approved physicians are now registered as general practitioners or specialists.

### ***General practitioners***

Coverage: Includes general practitioners who run a private practice.

Break in time series:

- 1995: Before 1995, data include freelancing general practitioners without private practice.

- 2013: 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. Up to and including 2012, these physicians were not required to register.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Includes general practitioners who do not run a private practice, mainly general practitioners in hospitals.

Break in time series:

- 1995: From 1995 onwards, data include freelancing general practitioners without private practice.

- 2013: 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. Up to and including 2012, these physicians were not required to register.

- 2016: The group of other general medical practitioners also included approbated foreign physicians up to and including 2015. Since 2016, it has no longer been possible to register as an approbated doctor. Approved physicians are now registered as general practitioners or specialists.

### ***Paediatricians***

Coverage: Includes the specialisation General Paediatrics.

Break in time series:

- 2013: 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. Up to and including 2012, these physicians were not required to register.

### ***Obstetricians and gynaecologists***

Coverage: Includes gynaecology and obstetrics, medical genetics (since 2007, replacing medical biology from 1995 to 2006).

Break in time series:

- 2013: 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. Up to and including 2012, these physicians were not required to register.

### ***Psychiatrists***

Coverage: Includes psychiatry and neurology, psychiatry, psychiatry and psychotherapeutic medicine, child psychiatry (since 2007) and child psychiatry and psychotherapeutic medicine (since 2016).

Break in time series:

- 2013: 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. Up to and including 2012, these physicians were not required to register.

### ***Medical group of specialists***

Coverage: Includes

- Internal medicine: internal medicine, physical medicine and general rehabilitation, medical physiology of physical strain (since 1995), special prophylaxis and tropical medicine (since 1995), internal medicine and infectiology (since



2016), Internal medicine and nephrology (since 2016), internal medicine and rheumatology (since 2016), internal medicine and angiology (since 2019).

- Cardiologists: Internal medicine and cardiology (since 2016).
- Endocrinologists: Endocrinology is not a separate specialty, but is subsumed under Internal Medicine. It requires (in addition to the training in internal medicine) three years of further education in endocrinology and metabolic diseases (since 2018: internal medicine, endocrinology and diabetology).
- Gastroenterologists: Internal medicine and gastroenterology/hepatology (since 2016).
- Pulmology/respiratory medicine: Pulmology, internal medicine and pneumology (since 2016).
- Oncologists: Internal medicine and haematology/internistic oncology (since 2016).
- Immunologists: Clinical immunology (since 1995).
- Neurologists: Neurology and psychiatry, neurology (since 1995).
- Oto-rhino-laryngologists
- Radiologists: Radiologists Radiotherapists/radio-oncologists (since 1995), nuclear medicine diagnostic radiology (from 1995 to 2015).
- Microbiology-bacteriologists: Clinical microbiology and hygiene (since 1995), clinical microbiology and virology (since 2016), tumor biology (since 1995), virology (since 1995), pharmacology and toxicology (since 1995, replacing pharmacology up to 1994).
- Haematologists: Transfusion medicine (since 1995).
- Dermatologists: dermatology and venerology.
- Pathologists: Forensic medicine, pathology (up to 2015), clinical pathology and molecular pathology (since 2016), clinical pathology and neuropathology (since 2016).
- Occupational medicine: Occupational medicine (since 1995), occupational medicine and applied physiology (since 2016 and up to 2019), medical and chemical laboratory diagnostics, microbiological-serologic laboratory diagnostics, social medicine (since 1995), public health (since 2016).

**Break in time series:**

- 2013: 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. Up to and including 2012, these physicians were not required to register.

***Surgical group of specialists***

**Coverage:** Includes

- General surgeons: General surgery (up to 2015), general surgery and visceral surgery (since 2016), paediatric and adolescent surgery).
- Neurological surgeons: Neurologic surgery.
- Plastic surgeons: Plastic surgery.
- Ophthalmologists: Ophthalmology and optometry.
- Orthopaedics: Orthopaedics, orthopaedics and orthopaedic surgery (since 2016), orthopaedics and traumatology (since 2018).
- Other types of surgery: Cardiac surgery (since 2007), thoracic surgery (since 2007), general surgery and vascular surgery (since 2016).
- Intensive care and anaesthesiologists: Anaesthesiology and intensive care, internal medicine and intensive care (since 2016).
- Urology, nephrology: Urology.
- Accident and emergency medicine: Accident medicine.

**Break in time series:**

- 2007: Since 2007, dental and maxillofacial surgeons are excluded (enclosed up to and including 2006).

- 2013: 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. Up to and including 2012, these physicians were not required to register.

***Other specialists not elsewhere classified***

**Coverage:** Includes anatomy, histology and embryology (up to 2005), histology, embryology and cell biology (since 2006), neurobiology (since 1995), neuropathology (since 1995), pathophysiology (since 1995), physiology, theoretical medicine.

Note: Due to software conversions, changes in the physician training regulations and various changes in the legal framework for the practice of medicine, a disproportionately high number of specialist medical practitioners could not be assigned to any (dominant) category in 2016.

Break in time series:

- 2013: 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. Up to and including 2012, these physicians were not required to register.

### ***Medical doctors not further defined***

Coverage: Included are physicians in training because it is not possible to separate the specialties of training.

Break in time series:

- 2016: Changes in the medical training regulations led to an increase in the number of registrations of doctors in training in 2016.

## **Belgium**

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

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

Coverage:

- Head count data.  
- Excludes non-practising physicians, retired professionals and professionals working abroad. Includes professionals of foreign origin.

Deviation from the definition:

- Excludes physicians in training.  
- Stomatologists are included in the number of physicians.

### ***General practitioners***

Coverage: Physicians with a minimal volume of patient contacts.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: If other generalists exist in Belgium, they do not fulfil the activity requirements used in definition applied on the Belgian data and have only very small activity levels. Therefore, "0" has been reported.

### ***Specialist medical practitioners (and sub-categories), Medical doctors not further defined***

Coverage: Number of physicians with at least 1 patient contact.

## **Canada**

Source of data:

- **Canadian Institute for Health Information**.  
- **Canadian Post-M.D. Education Register (CAPER)**.

Coverage:

- 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; 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 from 1968 to 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 of December 31<sup>st</sup> 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 of December 31<sup>st</sup> of the reference year.

- Detailed data tables and methodological notes concerning SMDB are available free for download at

<https://www.cihi.ca/en/physicians>.

- **CAPER Specific Notes:** The data on interns and residents exclude visa trainees and fellows. For Generalist medical practitioners, the distinction between general practitioner and specialist interns/residents is based on programs of post-MD training. For Specialist medical practitioners, data include physicians who have a Medical Degree and are completing a residency program as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

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

Break in time series: 1988. Interns and residents are included as of 1988.

### ***General practitioners***

#### ***Coverage:***

- **SMDB Note:** General practitioners include physicians who have a Medical Degree and have completed either a 1-year internship for certification in General Practice (General Practitioner) before 1992 or have a certification in Family Medicine or Emergency Family Medicine. As of 1992, a policy was implemented that requires minimum 2-year residency training before certification as a Family Physician (there is no more certification as a General Practitioner). SMDB Family Medicine counts also include “non-certified” specialists, physicians who are licensed as specialists within their jurisdictions, but who have not (yet) been certified by the specialty certification authorities noted above. The exceptions to this last inclusion are in Saskatchewan and Newfoundland and Labrador (starting in 2004); in Nova Scotia, New Brunswick and the Yukon (starting in 2007); in Quebec (from 2009 to 2018); in Prince Edward Island (starting in 2009); and in Alberta (starting in 2010). In these jurisdictions, non-certified specialists are recorded as specialists in their specialty of practice.

- **CAPER Note:** The distinction between general practitioner and specialist interns/residents is based on programs of post-MD training.

### ***Other generalist (non-specialist) medical practitioners***

- In Canada, no physicians fall under the category “Other generalist medical practitioners”.

### ***General paediatricians***

- **SMDB Note:** General paediatrics includes physicians who have a Medical Degree and have completed a 4-year residency program in Pediatrics as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

- **CAPER Note:** General paediatrics residents include physicians who have a Medical Degree and are completing a 4-year residency program in Pediatrics as accredited by the Royal College of Physicians and Surgeons of Canada (RCSPC).

### ***Obstetricians and gynaecologists***

- **SMDB Note:** Obstetrics and gynaecology includes physicians who have a Medical Degree and have completed a 5-year residency program in obstetrics and gynaecology or medical genetics as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

- **CAPER Note:** Obstetrics and gynaecology residents includes physicians who have a Medical Degree and are completing a 5-year residency program in obstetrics and gynaecology as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

### ***Psychiatrists***

- **SMDB Note:** Psychiatrists include physicians who have a Medical Degree and have completed a 5-year residency program in psychiatry as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

- **CAPER Note:** Psychiatry residents include physicians who have a Medical Degree and are completing a 5-year residency program in psychiatry as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

### ***Medical group of specialists***

- **SMDB Note:** Medical specialists include physicians who have a Medical Degree and have completed a residency program in internal medicine, and its subspecialties, most paediatric subspecialties (paediatric cardiology or paediatric gastroenterology, for example, but excluding pediatric surgery, pediatric emergency medicine and pediatric critical care medicine), dermatology, neurology, otolaryngology, nuclear medicine, diagnostic radiology, radiation oncology, medical biochemistry, medical microbiology, general pathology, neuropathology, hematological

pathology, anatomical pathology, community medicine and occupational medicine as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

- **CAPER Note:** Medical specialist residents include physicians who have a Medical Degree and are completing a residency program in internal medicine and its subspecialties, paediatric subspecialties (paediatric cardiology or paediatric gastroenterology, for example, but excluding pediatric surgery, pediatric emergency medicine and pediatric critical care medicine), dermatology, neurology, nuclear medicine, diagnostic radiology, radiation oncology, medical biochemistry, medical microbiology, general pathology, neuropathology, hematological pathology, anatomical pathology, otolaryngology, gynaecologic oncology, community medicine and occupational medicine as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

#### ***Surgical group of specialists***

- **SMDB Note:** Surgical specialists include physicians who have a Medical Degree and have completed a residency program in anesthesiology, cardiac surgery, cardiothoracic surgery, general surgery, pediatric surgery, neurosurgery, ophthalmology, emergency medicine, pediatric emergency medicine, critical care medicine, pediatric critical care medicine, orthopaedic surgery, plastic surgery or urology as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

- **CAPER Note:** Residents in surgical specialties include physicians who have a Medical Degree and are completing a residency program in anesthesiology, cardiac surgery, cardiothoracic surgery, general surgery, neurosurgery, ophthalmology, emergency medicine, critical care medicine, orthopaedic surgery, plastic surgery or urology as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

#### ***Other specialists not elsewhere classified***

- **SMDB Note:** “Other specialists n.e.c.” includes physicians who have a Medical Degree and have completed a residency program in physical medicine and rehabilitation or palliative medicine as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC) and medical scientists.

- **CAPER Note:** Other residents include physicians who have a Medical Degree and are completing a residency program in physical medicine and rehabilitation or palliative medicine as accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC).

#### ***Medical doctors not further defined***

- Specialty category data was not available for 7 physicians in 2019 and 14 physicians in 2020.

## **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](http://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.

Coverage: Nationwide.

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

- When the professional has more than one specialty, the last obtained has been chosen.

- The registration of Chilean Medical and Dentist Specialists in the National Registry of Individual Health Providers obey to a Specialties Certification System adopted by law-ranking decree in November 2008, updated in February 2013. This decree provides for transitory legal arrangements for physicians who were not postgraduates in the Specialty they practiced at the date when the law came into force. The deadline to achieve the corresponding proceedings has been delayed by decree until December 2014. For this reason, the share of General Practitioners in the total number of physicians will decline at least until the end of 2014. By 2015 1<sup>st</sup> January, the transitory legal arrangements of the decree on Specialties certification system has ended, so that since this date, the permanent legal rules apply.

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

#### ***Generalist medical practitioners***

- Data include General Practitioners and Family Doctors as well as Physicians of the “Destination and Formation Cycle” who are recent graduates and who go to work as general practitioners in areas of Chile where there is need for health professionals (sub attended sectors). Specialists in Family Medicine are included in the General Practitioners category.

- The breakdown between General practitioners and other generalist (non-specialist) medical is not provided since the general practitioners category included every kind of general or family practice.

Break in time series: The decrease in 2019 is due to some adjustment in the database from the Superintendencia de Salud.

### ***General Practitioners***

Deviation from the definition: The information provided in the category of General Practitioners includes every kind of general practitioners wherever they practice (primary care doctors, ambulatory and hospital settings) and the Medical interns and residents.

Break in time series: The decrease in 2019 is due to some adjustment in the database from the Superintendencia de Salud.

### ***Specialist medical practitioners (and sub-categories)***

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

- When the physician is registered with more than one specialty or sub-specialty, the last certificated specialty or sub-specialty has been chosen.

### ***Psychiatrists***

- The number of Psychiatrists included in the Registry at the end of 2010, was only 356 and reached 791 at the end of 2011: this important increase between 2010 and 2011 is due to a massive incorporation of Psychiatrists in the Registry all along the year 2011.

### ***Medical group of specialists***

- In Chile, Community Medicine (Medicina Comunitaria) is associated to the specialty of Family Medicine. The role of these doctors consists in focusing in preventive medicine and health promotion, and in attending a community and families by providing primary healthcare, including rehabilitation care. For this reason, they are classified in the category "General Practitioners". However, those who specialised in Public Health have been classified in the "Medical Specialists" group. The specialty of Occupational Medicine does not exist in Chile.

### ***Medical doctors not further defined***

Data not applicable. (All the Medical Doctors licensed to practice are classified in one of the other categories.)

## **Colombia**

### Source of data:

- From 2011 onwards: Calculations by the Direction of Human Talent Development in Health, **Ministry of Health and Social Protection**.

Coverage: National.

Methodology: 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).

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

- Estimation of the stock of specialist physicians, including general practitioners and specialists, who may not be exercising, without distinction of their field of exercise. Data thus include doctors working in areas that do not have direct contact with patients (e.g. physicians working in administration and research).

Estimation: Data presented are estimates.

### **Medical group of specialists**

- Medical specialties included (subspecialties): Internal Medicine (including the subspecialty of Cardiology), Neurology, Otolaryngology, Radiology, Dermatology, Pathology, Occupational Medicine, and Family Medicine.

### **Surgical group of specialists**

- Surgical specialties included (including subspecialties): General Surgery, Pediatric Surgery, Plastic Surgery, Gynaecology and Obstetrics, Neurosurgery, Ophthalmology, Orthopaedics, Otolaryngology, and Urology.

### **Medical doctors not further defined**

- For the variable "Medical doctors not further defined" the data are not available considering that doctors in Colombia are defined on the basis of undergraduate university training and may or may not have a medical specialty.

## Costa Rica

Data not available.

## Czech Republic

**Source of data:** Institute of Health Information and Statistics of the Czech Republic.

- Till 2013: Registry of Physicians, Dentists and Pharmacists.

- Since 2019: statistical surveys on workers in providers of healthcare services.

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

**Coverage:** From 2014 to 2018, data are not available. The Registry of Physicians, Dentists and Pharmacists was legislatively terminated on 31. 12. 2013.

**Estimation method:** Since 2019, the structure according to fields of activity of practicing physicians (full-time equivalents) is taken from the statistical surveys on workers in providers of healthcare services and is adjusted to the total number of practicing physicians estimated from the National Registry of Reimbursed Health Services. Physicians with unknown field of activity were partly distributed in the specific categories of physicians (see notes below).

**Break in time series:** 2005 (a new legislation on medical professions came into effect in 2004), 2019 (new data source).

### ***Generalist medical practitioners (General practitioners, Other generalist (non-specialist) medical practitioners)***

**Coverage:**

- Practising GPs for adults and GPs for children and adolescents are counted as General Practitioners.

- There are no other generalists/non-specialists in the Czech Republic.

**Estimation method:** Till 2000 and since 2019 only estimation of total number of GPs for children and adolescents based on split of total number of pediatricians. Since 2019, all physicians with unknown field of activity but working in offices of GPs for adults or GPs for children and adolescents were also included.

### ***Paediatricians***

**Coverage:** Adolescent medicine, Neonatology, Paediatrics.

**Note:** Since 2019, all paediatricians working in offices of GPs for children and adolescents were included under general medical practitioners.

### ***Obstetricians and gynaecologists***

**Coverage:** Gynaecology and obstetrics, Medical genetics, Paediatric gynaecology, Reproductive medicine.

**Estimation method:** Since 2019, all physicians with unknown field of activity but working in offices of gynaecology were also included.

### ***Psychiatrists***

**Coverage:** Addictive diseases, Gerontopsychiatry, Paediatric and adolescent psychiatry, Psychiatry.

### ***Medical group of specialists***

**Coverage:** Diabetology and endocrinology (since 2010 endocrinology is not a separate branch), Geriatrics, Infectious medicine, Internal medicine, Rehabilitation and physical medicine, Sexology, Sports medicine, Hyperbaric medicine and oxygenotherapy, Palliative medicine and pain management, Cardiology, Paediatric cardiology, Angiology, Gastroenterology, Paediatric gastroenterology and hepatology, Paediatric pneumology, Pneumology, Clinical oncology, Paediatric oncology and haemato-oncology, Allergology and medical immunology, Rheumatology, Paediatric rheumatology, Neurology, Paediatric neurology, Audiology and phoniatry, Otorhinolaryngology, Paediatric otorhinolaryngology, Interventional radiology, Neuroradiology, Nuclear medicine, Radiation oncology, Radiology and imaging methods, Paediatric radiology, Medical microbiology, Haematology and transfusion, Corrective dermatology, Dermatovenerology, Paediatric dermatovenerology, Forensic medicine, Pathological anatomy, Occupational medicine, since 2011 including community medicine (including Assessment

medicine, Epidemiology, General and communal hygiene, Hygiene and epidemiology, Hygiene of children and youth, Nutrition hygiene).

Estimation method: Since 2019, all physicians with unknown field of activity but working in institutes for long-term patients, hospices and providers of home care were also included.

#### ***Surgical group of specialists***

Coverage: Paediatric surgery, Surgery, Neurosurgery, Burn medicine, Plastic surgery, Ophthalmology, Orthopaedics, Orthopedical prosthesis, Cardiosurgery, Thoracic surgery, Vascular surgery, Anaesthesiology and resuscitation, Intensive medicine, Paediatric nephrology, Urology, Nephrology, Paediatric urology, Emergency medicine, Traumatology.

Estimation method: Since 2019, all physicians with unknown field of activity but working in medical transport and emergency medical service were also included.

#### ***Other specialists not elsewhere classified***

Coverage: Clinical biochemistry, Clinical pharmacology, Public healthcare, till 2013 also Maxillo-facial surgery and all other specialties, till 2010 also community medicine (including Assessment medicine, Epidemiology, General and communal hygiene, Hygiene and epidemiology, Hygiene of children and youth, Nutrition hygiene).

Break in time series: 2011 (since 2011, community medicine (including Assessment medicine, Epidemiology, General and communal hygiene, Hygiene and epidemiology, Hygiene of children and youth, Nutrition hygiene) is included in the "medical group of specialists").

#### ***Medical doctors not further defined***

Coverage: Since 2019, physicians with unknown field of activity who were not attributed to any of the above categories of physicians.

## **Denmark**

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

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

Coverage: Data refer to "practising" physicians.

#### ***Generalist medical practitioners***

Coverage:

- General practitioner has existed as a specialty since 1994.
- The breakdown between General practitioners and Other generalist (non-specialist) medical practitioners is not available.

#### ***Specialist medical practitioners (and sub-categories)***

Coverage:

- If the physician has more than one specialty, the one obtained at the latest date is counted.

#### ***Medical doctors not further defined***

Break in time series: 1994. Up to 1993, GPs are included in 'other categories' as this category was not categorised as a specialty in Denmark.

## **Estonia**

Source of data: Annual reports, **National Institute for Health Development**, Department of Health Statistics.

Reference period:

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

Coverage:

- The data refer to practising physicians.
- Medical staff working in research or other areas is not included. Military area is included since 2010.

Break in time series: 2013.

- For 1998-2012, the head count distribution is made according to their main occupational activity.



- The data collection methodology was changed in 2013. Aggregated data collection was replaced with data collection on a personal basis. From 2013, the predominant (main) area of practice is based on the occupation with the highest workload.
- For 1998-2012 resident physicians are not included by category, they are reported in the group of “medical doctors not further defined”.

#### ***General practitioners***

Coverage: The category “General practitioners” contains “family doctors” and “school doctors”.

Break in time series: For 1998-2012 resident physicians are not included, they belong to the group of “medical doctors not further defined”.

#### ***Other generalist (non-specialist) medical practitioners***

Coverage: The category “Other generalist (non-specialist) medical practitioners” contains “general/non-specialist practitioners”.

Break in time series: For 1998-2012 resident physicians are not included, they belong to the group of “medical doctors not further defined”.

#### ***Obstetricians and gynaecologists***

Coverage: Also medical geneticists are included under the category “Obstetricians and gynaecologists”.

Break in time series: For 1998-2012 resident physicians are not included, they belong to the group of “medical doctors not further defined”.

#### ***Medical group of specialists***

Coverage: Also the clinical laboratory physicians and rehabilitation therapists are reported under category “Medical group of specialists”.

Break in time series: For 1998-2012 resident physicians are not included, they belong to the group of “medical doctors not further defined”.

#### ***Surgical group of specialists***

Coverage: Also the nephrologists are reported under category “Surgical group of specialists” (“Urologists”) according to the definition (although in Estonia nephrologists are continually considered under the category of “Medical group of specialists” (“Internal medicine”) as they don’t do surgical work. Surgical work is done by urologists).

Break in time series: For 1998-2012 resident physicians are not included, they belong to the group of “medical doctors not further defined”.

#### ***Other specialists not elsewhere classified***

Coverage: the category “Other specialists not elsewhere classified” is not represented.

#### ***Medical doctors not further defined***

- Until 2012, physicians in training were all included in “Medical doctors not further defined”.

Break in time series: 2013. For 1998-2012 resident physicians are included in the group of “medical doctors not further defined”. Since 2013 all physicians in training are classified in the other categories.

## **Finland**

### ***2004 - until present year***

#### ***Generalist medical practitioners:***

Source of data: THL Health Personnel Statistics; **Finnish Institute for Health and Welfare**. The data are based on both the Employment Register kept by Statistics Finland and the Register on Qualified Health Care Personnel kept by VALVIRA, the National Supervisory Authority for Welfare and Health.

Reference period: At the end of the calendar year.

Coverage: Data are based on practising physicians and includes those working as general practitioners, the specialists whose most recent area of specialisation is general practice, and interns and residents who have not started to specialise or who do not hold a permanent license to practice yet.



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.

Break in time series: The occupational classifications used in the Employment Register was updated in 2010 and this causes a break in the data series in 2010. In the Classification of Occupations 2010, the old class 'Other medical doctors' has been changed to 'Generalist medical practitioners'. Additionally, many physicians training for a specialty were previously classified as GPs but after 2010 they have been categorised as specialists.

**Sub-groups:** It is not possible to make a distinction between general practitioners and other generalist medical practitioners. In Finland it is possible for the same physician to work both in the public health primary care sector (as a GP) as well as in the hospital.

#### ***Specialist medical practitioners:***

Source of data: THL Health Personnel Statistics; **Finnish Institute for Health and Welfare**. The data are based on both the Employment Register kept by Statistics Finland and the Register on Qualified Health Care Personnel kept by VALVIRA, the National Supervisory Authority for Welfare and Health.

Reference period: At the end of the calendar year.

Coverage: Data are based on practising physicians and includes those working as senior practitioners or specialist physicians. The individuals are classified by their most recent area of specialty on a given year – and this information regarding the area of specialty is available only once the individuals have acquired a license for the practising the specialty (i.e. have finished their training).

Deviation from the definition: Interns and residents currently specialising are not included unless they have a previous specialisation area.

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.

#### ***Other specialists not elsewhere classified***

Source of data: THL Health Personnel Statistics; **Finnish Institute for Health and Welfare**. The data are based on both the Employment Register kept by Statistics Finland and the Register on Qualified Health Care Personnel kept by VALVIRA, the National Supervisory Authority for Welfare and Health.

Reference period: At the end of the calendar year.

Coverage: Practising physicians specialised for instance in sports medicine, forensic medicine, phoniatics, clinical chemistry and interns and residents training for a specialty who do not have another area of specialism.

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.

Break in time series: The occupational classifications used in the Employment Register was updated in 2010 and this causes a break in the data series in 2010. Many physicians training for a specialty were classified as GPs before 2010 but after 2010 they have been categorised as specialists – this spike shows in other specialists as there is no information on the area of specialty they are training for.

#### ***1980-2003 - Generalist medical practitioners, Specialist medical practitioners, and Other specialists not elsewhere classified and Medical doctors not further defined***

Source of data: VALVIRA. **National Supervisory Authority for Welfare and Health**. Register on Qualified Health Care Personnel.

Reference period: At the end of the calendar year.

Coverage: Values reflect the licensed physicians and they are categorised by their most recent license on any given year.

Deviation from definition: All physicians currently in training for a specialty are classified as generalist medical practitioners, if licensed, unless they have earlier acquired license for some other specialty. Medical doctors not further defined cover those with a license but without information regarding whether they are general practitioners or specialists. Otherwise, the categories are the same as defined for subsequent years.

## **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 revision in 2023 (from 2011 to 2021).

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

Coverage:

- Data refer to active physicians until 2010. As of 2011, data refer to practising physicians.
- Data refer to metropolitan France and D.R.O.M. (overseas departments and regions).
- 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 until 2010.
- Interns and residents are not included. In 2020, the number of interns and residents working in public and private hospitals and clinics amounts to 35 000; however, this number includes dentists, mid-wives, pharmacists and some non-practising medical interns (for instance interns in public health), and excludes some general medicine interns doing training periods in medical practices.

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).
- Since 2011, the breakdown by categories is provided for practising physicians (before, it was for professionally active physicians).

***Generalist medical practitioners***

Coverage: GPs and non-specialist practitioners are included in the data. They can be salaried (in hospitals or other institutions such as nursing homes, etc.), self-employed or both. They may also report specific skills (e.g. allergology, sports medicine) or practice as homeopath or acupuncturist. Physicians with a foreign (non-EEA) degree who are allowed to practice in hospitals and registered at the French National Medical Council, but without a specialty recognised in France, are included in these data.

- The new source (RPPS) makes it possible to give the number of *practising* generalist medical practitioners since 2011.

***General practitioners***

Coverage: Since 2012, this category refers to family doctors. Generalists working in hospitals are included under other generalist (non-specialist) medical practitioners. General practitioners working part-time as self-employed and part-time as salaried professionals are included in this category (revision in 2023 from previous deliveries, data was revised for years 2011 to 2021).

***Other generalist (non-specialist) medical practitioners***

Coverage: Since 2012, this category includes the generalist medical practitioners who practice only in hospitals.

***Specialist medical practitioners***

Coverage: - The new source (RPPS) makes it possible to give the number of *practising* specialist medical practitioners since 2011.

***Paediatricians***

Coverage: Data include paediatrics as reported in ADELI. Data exclude child surgery and child/adolescent psychiatry.

- The new source (RPPS) makes it possible to give the number of *practising* paediatricians since 2011.

***Obstetricians and gynaecologists***

Coverage: Data correspond to ADELI codes 17 (medical gynecology), 18 (obstetric gynecology), 32 (obstetrics), 48 (medical and obstetric gynecology), and 68 (genetics).

- The new source (RPPS) makes it possible to give the number of *practising* obstetricians and gynaecologists since 2011.

### ***Psychiatrists***

Coverage: Data correspond to ADELI codes 31 (Neuropsychiatry), 39 (Psychiatry), 40 (Child and adolescent psychiatry).

- The new source (RPPS) makes it possible to give the number of *practising* psychiatrists since 2011.

### ***Medical group of specialists***

Break in time series: As of 2011, “Geriatrics” has been integrated into “Internal medicine” and the medical group of specialists. In the former source (Répertoire ADELI), Geriatrics was not considered as a full specialty.

- The new source (RPPS) makes it possible to give the number of *practising* medical specialists since 2011.

### ***Surgical group of specialists***

Coverage: Stomatologists and maxillofacial surgeons are not included in the data.

- The new source (RPPS) makes it possible to give the number of *practising* surgical specialists since 2011.

### ***Other specialists not elsewhere classified***

Coverage: Data include physicians working in physical medicine and rehabilitation, and medical research.

- The new source (RPPS) makes it possible to give the number of other *practising* specialists since 2011.

### ***Medical doctors not further defined***

- Data not applicable.

## **Germany**

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

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

Coverage:

- Data contain the number of generalist and specialist medical practitioners who are actively practising medicine in public and private institutions and provide services directly to patients (head-count data).

- The data exclude dentists, stomatologists and physicians with specialty “dental, oral and maxillofacial surgery”.

- Medical interns and resident physicians specialising in general medicine or in any other specialty are reported in the corresponding categories.

- Students who have not yet graduated are excluded.

Estimation method:

- The numbers of medical interns or residents by categories are estimations and are based on a special calculation by the Federal Statistical Office. Table 9 of the Medical practitioner statistics of the German Medical Association forms the basis for this estimation of physicians in continuing medical education by specialty. It contains the annually pronounced recognitions of the individual specialty designations. Taking into account the minimum period prescribed from the (Model) Regulations on Continuing Medical Education of the German Medical Association, the number of physicians in further training can be estimated by specialties. The following assumptions are made: Every physician, who has received recognition, has achieved this in the prescribed minimum period, the specialty has not changed in between and it is his first training as a specialist.

Note: The time series have been fully revised in 2018, with the estimation method detailed above.

### ***General practitioners***

Coverage:

- Included are physicians with specialty “general medicine”, physicians without specialty working in the ambulatory sector and general practitioners (“Praktischer Arzt”).

- Included are interns and resident physicians specialising in general practice.

- Excluded are students who have not yet graduated.

### ***Other generalist (non-specialist) medical practitioners***

#### Coverage:

- Included are practising physicians without specialty working in the stationary sector.
- Included are interns and resident physicians without any area of specialisation yet working in the stationary sector.
- Excluded are students who have not yet graduated.

### ***Paediatricians***

#### Coverage:

- Includes practising physicians with specialty “general paediatrics” and medical interns or residents specialising in paediatrics.
- Excludes physicians with a paediatric subspecialisation (e.g. paediatric surgery, paediatric oncology, neonatology, etc).

### ***Obstetricians and gynaecologists***

#### Coverage:

- Includes practising physicians with specialty “gynaecology and obstetrics” and “human genetics” and medical interns or residents specializing in obstetrics and gynaecology.
- Excluded are practising physicians with subspecialisation “gynaecological oncology”.

### ***Psychiatrists***

#### Coverage:

- Includes practising physicians with specialty “psychiatry and psychotherapy”, “paediatric psychiatry and psychotherapy”, “neuropsychiatry” and “psychosomatal medicine and psychotherapy”.
- Includes medical interns or residents training in these psychiatric specialties.

### ***Medical group of specialists***

#### Coverage:

- This group includes practising physicians with medical specialties (e.g. internal medicine, cardiology, neurology, radiology, pathology, oncology, occupational medicine) and medical interns or residents training in these specialties.
- It excludes practising physicians with specialties “surgery”, “gynaecology and obstetrics”, “paediatrics”, “psychiatry” and “general practitioners”.

### ***Surgical group of specialists***

#### Coverage:

- Includes practising physicians with specialty “surgery” (e.g. general, neurological, plastic, paediatric), “orthopaedic and accident surgery”, “ophthalmology”, “urology” and “anaesthesiology and intensive therapy”.
- Includes medical interns or residents training in these specialties.
- The data exclude physicians with specialty “dental, oral and maxillofacial surgery”.

### ***Other specialists not elsewhere classified***

#### Coverage:

- Includes practising physicians and medical interns and residents with all specialties not elsewhere classified (e.g. biochemistry, physiology, sports medicine).

### ***Medical doctors not further defined***

- Data are available separately for the categories “Generalist medical practitioners” and “Specialist medical practitioners” (and for all sub-categories), hence there are no “Medical doctors not further defined”.

## **Greece**

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

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

Coverage: The coverage is complete at regional level.

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

Break in time series: 2014. Until 2013, all physicians in training are included in the category “Medical doctors not further defined”. From 2014 onwards, they are allocated in the relevant specific categories.

#### ***General practitioners***

Break in time series: From 2014 onwards, general practitioners in training are included in this category.

#### ***Other generalist (non-specialist) medical practitioners***

Coverage: This category includes rural doctors.

#### ***Paediatricians***

Break in time series: From 2014 onwards, general paediatricians in training are included in this category.

#### ***Obstetricians and gynaecologists***

Break in time series: From 2014 onwards, obstetricians and gynaecologists in training are included in this category.

#### ***Psychiatrists***

Break in time series: From 2014 onwards, psychiatrists in training are included in this category.

#### ***Medical group of specialists***

Break in time series: From 2014 onwards, medical specialists in training are included in this category.

#### ***Surgical group of specialists***

Break in time series: From 2014 onwards, surgical specialists in training are included in this category.

#### ***Other specialists not elsewhere classified***

Break in time series: From 2014 onwards, specialists in training belonging to this category are included.

#### ***Medical doctors not further defined***

Break in time series: In this category, data prior to the 2014 year of reference include the physicians in training and the physicians without specialty. From 2014 onwards, the physicians in training are allocated in the relevant categories, so only physicians without any specialty remain in the category ‘Medical doctors not further defined’.

## **Hungary**

#### Source of data:

- From 2017 to 2020, **National Healthcare Service Center** (ÁEEK in Hungarian), [www.enkk.hu](http://www.enkk.hu). Full title of the database: Operational register.

- From 2021, **National Directorate General for Hospitals** (OKFŐ in Hungarian) [www.enkk.hu](http://www.enkk.hu). Full title of the database: Operational register.

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

Coverage: From 2017:

- Specialist and non specialist doctors (except medical interns and residents):

\* From the Operational Register: health professionals who entitled to pursue the activities of a doctor in Hungary

\* Used method to avoid double counting of doctors who have more than one specialty: the last specialty for which doctors have received registration

- Residents:

\* Non specialist doctors participating in the Hungarian residency programme.

- The medical interns and residents are allocated according to the specialty in which they are training.

Break in time series: 2020. 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, 2020) 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.
- In cases where a physician has more than one specialty, the counted specialisation is the newest specialty. Should two specialties be registered on the same day, the one that is more specialised is included.
- Physicians in training for a specialization (physicians licensed to practice) are included in the category "Medical doctors not further defined".
- Excludes medical students in training.

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.

***Other generalist (non-specialist) medical practitioners***

- Data not available. Some practitioners may be included within the category "Medical doctors not further defined".

***Obstetricians and gynaecologists***

Coverage: Includes female endocrinology.

***Medical doctors not further defined***

Coverage: Physicians without a specialisation are included in "Medical doctors not further defined". Physicians in training for specialization (physicians licensed to practice) are included in this category (medical students in training not included).

## **Ireland**

***Physicians by categories (all categories)***

Source of data: Various, refer to specific categories below.

Reference period: Various, refer to specific categories below.

Coverage: Various, refer to specific categories below.

- From 2014 onwards, data refers to practising physicians.

Deviation from the definition:

- Pre-2014, data refers to physicians licensed to practice.

Break in time series: Various, refer to specific categories below.

***Generalist medical practitioners***

Source of data: See below for "General practitioners" and "Other generalist (non-specialist) medical practitioners" sections.

Reference period: Figures refer to as at end of December.

Coverage: The sum of General practitioners and Other generalist (non-specialist) medical practitioners.

Break in time series: Breaks in series occur in 2009, 2011, 2014. For more detail refer to the sections for "General practitioners" and "Other generalist (non-specialist) medical practitioners" below.

### ***General practitioners***

#### Source of data:

- From 2017: **Irish Medical Council of Ireland** for general practitioners data (<https://www.medicalcouncil.ie/>), **Irish College of General Practitioners (ICGP)** for trainee general practitioners data (<https://www.icgp.ie/>).
- 1996-2016: **Irish College of General Practitioners (ICGP)** (<https://www.icgp.ie/>).
- Up to 1995: **General Medical Services Payments**.

Reference period: Figures refer to as at end of December.

Coverage: The number of General practitioners is the number of GPs registered with the Irish College of General Practitioners (ICGP). The ICGP estimate that approx. 90% of GPs in Ireland are registered with them. Figures exclude physicians overseas and those over 70 years old.

#### Break in time series:

- From 2011, data include general practitioners (GPs) in training. They were not included prior to 2011.

### ***Other generalist (non-specialist) medical practitioners***

Source of data: **Medical Council of Ireland** (<https://www.medicalcouncil.ie/>).

Reference period: Figures refer to as at end of December.

#### Coverage:

- Data is sourced from the registrations statistics of the Medical Council of Ireland and include physicians registered by the Medical Council of Ireland who have entered and maintained their name as fully registered doctors in the Register of Medical Practitioners. The majority of doctors in this category are those registered in the Register of Medical Practitioners General Division. General registration is specifically for medical practitioners who have not completed specialist training and do not occupy an individually numbered, identifiable postgraduate training post. Also included in these figures are interns and supervised doctors.

- Data excludes trainee GPs.

#### Break in time series:

- Until 2008, specialists in training are included. From 2009, they are included under the “Specialist medical practitioners” heading.
- From 2011: GPs in training are excluded from final figures. Trainee GPs had not been excluded previously.
- From 2012: Physicians registered with the EEA division within the Medical Council are excluded (refer to “Medical doctors not further defined” section), but account to a very small number.
- Data from 2014 have been revised (in 2016) using data on the number of 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.
- Data refer to physicians licensed to practice until 2013 and to practising physicians since 2014.

### ***Specialist medical practitioners (and sub-categories)***

Source of data: **Medical Council of Ireland** (<https://www.medicalcouncil.ie/>), **Health Service Executive** (<https://www.hse.ie/eng/>).

Reference period: Figures refer to as at end of December.

#### Coverage:

- Data comes from the registration statistics of the Medical Council of Ireland and include physicians registered by the Medical Council of Ireland who have entered and maintained their name as fully registered doctors in the Register of Medical Practitioners Specialist Division. The registered specialty does not necessarily equal the area of current practice.

- Data on trainees for 2009 and 2010 comes from the Trainee Specialist Division of the same source.
- For 2011-2013, data on trainees by specialty refer to the number of non-consultant hospital doctor posts, and is obtained from the Health Service Executive.
- From 2014, data on specialists is obtained from the Medical Council of Ireland.
- Up to 2013, physicians with more than one specialty are counted within each specialty separately as data refer to the total number of doctors and not the total number of specialties. Therefore, a small number of physicians may be counted twice as it is not possible to extract them individually. For this reason, the sum of specialist groups does not equal the total specialist medical practitioners.

#### Break in time series:

- In 2009 and 2010, the total number of specialist medical practitioners includes specialists in training and general practitioners in training. Prior to 2009, specialists in training were included under “Other generalist (non-specialist) medical practitioners”.



- Since 2011, data on trainees are reported by specialty. For data reference years 2011-2013, figures refer to the number of non-consultant hospital doctor posts, and are obtained from the Health Service Executive. From 2014, data on trainees by specialty are sourced from the Medical Council of Ireland.
- From 2011, data excludes general practitioners in training. Data on trainees by specialty from 2011 refer to the number of non-consultant hospital doctor posts, and is obtained from the Health Service Executive.
- In 2013, only the specialty which is the physician's main area of work is included.
- Data from 2014 have been revised (in 2020) using data on the number of doctors registered with the Medical Council of Ireland who, in the last 12 months, have declared themselves practising and who have worked in Ireland either full or part-time. Only the most recent specialism was counted for doctors with more than one specialty. Data relates to the specialty registered which may be different to the area of practice.
- Data refer to physicians licensed to practice until 2013 and to practising physicians since 2014.
- From 2014, data on trainees by specialty are sourced from the Medical Council of Ireland.

### ***Medical doctors not further defined***

Source of data: **Medical Council of Ireland** (<https://www.medicalcouncil.ie/>).

Reference period: Figures refer to as at end of December.

Coverage:

- From 2012, data refers to physicians registered with the Medical Council of Ireland registered with “Visiting European Economic Area (EEA) division”. This includes EU doctors who are fully established to practice medicine in another EU member state. Doctors must hold a recognised primary medical qualification and (where applicable) higher specialist qualification.
- This category includes doctors specialized in oral and maxillofacial surgery.
- Prior to 2012, EEA doctors were included in the “Other generalist (non-specialist) medical practitioners”, which accounts for a small number of doctors.

## **Israel**

Source of data: The data are based on the Physicians License Registry which is 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. The source for residents' data by categories is the **Israeli Medical Association registry**.

Reference period: End of the year.

Deviation from the definition: Data for all categories include professionally active physicians based on Ministry of Health data and the Israeli Medical Association registry.

### ***General practitioners***

Coverage: Data include professionally active specialists in family medicine and residents in family medicine.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Data include professionally active medical doctors (general) without any speciality.

### ***General paediatricians***

Coverage: Data include professionally active physicians with paediatrics specialty and residents specialising in paediatrics.

### ***Obstetricians and gynaecologists***

Coverage: Data include professionally active physicians with obstetrics and gynaecology specialty and residents specialising in obstetrics and gynaecology.

### ***Psychiatrists***

Coverage: Data include professionally active physicians with a psychiatric specialty and residents specialising in psychiatry.

### ***Medical group of specialists***



Coverage: Data include professionally active physicians with a specialty in the diagnosis and non-surgical treatment of physical disorders and diseases in the list in the definition, and residents specialising in those specialities.

#### ***Surgical group of specialists***

Coverage: Data include professionally active physicians with surgical specialties in the list in the definition and residents specialising in those specialities.

#### ***Other specialists not elsewhere classified***

Coverage: Data include professionally active physicians with specialties not elsewhere classified and residents specialising in those specialties.

#### ***Medical doctors not further defined***

Data not applicable.

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**

Estimation method: The data for all categories (except General practitioners) are estimated from 2000 to 2011. The estimation is based on the proportion between the practising physicians by categories and the total of practising physicians. This proportion had small variations over time and therefore a linear regression of the data was possible.

#### ***Generalist medical practitioners***

Source of data: see General practitioners and Other generalist (non-specialist) medical practitioners below.

Coverage: sum of General practitioners and Other generalist (non-specialist) medical practitioners.

#### ***General practitioners***

Source of data:

**Ministry of Health** – General Directorate of digitalisation, health information system and statistics – Office of Statistics. Publication: “Attività gestionali ed economiche delle ASL e Aziende ospedaliere”, Annuario Statistico del Servizio Sanitario Nazionale - Assetto organizzativo, attività e fattori produttivi del SSN (published annually). Publication available on the website of the Ministry of Health. [www.salute.gov.it/statistiche](http://www.salute.gov.it/statistiche).

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

Coverage: Total survey on all general practitioners practising for the National Health System. General practitioners provide the first level care to all citizens aged 14 and over (consultations, visits, prescription of medicines, and referrals for laboratory tests or specialist visits).

#### ***Other generalist (non-specialist) medical practitioners***

Source of data: IQVIA ITALIA – One-Key database. <https://www.iqvia.com/>.

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

Coverage: Data refer to practising physicians. This category includes other (not in training) physicians not working as GPs/family doctors or as specialists and medical interns/residents specialising in general medicine. Medical interns and residents who have completed a basic medical university education and are undertaking postgraduate clinical training can provide services as generalist medical practitioners in the private sector only (not in the National Health Service). Medical interns and residents who are pursuing postgraduate training in general medicine are included as “other generalist medical practitioners”.

#### ***Specialist medical practitioners***

Source of data: see sub-categories below.

Coverage: Data refer to practising physicians. Physicians in training are included in the specialties in which they are training.

#### ***Paediatricians***

a) **For General paediatricians practising for the National Health System:**

Source of data: **Ministry of Health** – General Directorate of digitalisation, health information system and statistics – Office of Statistics. Publication: “Attività gestionali ed economiche delle ASL e Aziende ospedaliere”, Annuario Statistico del Servizio Sanitario Nazionale - Assetto organizzativo, attività e fattori produttivi del SSN (published annually). Publication available on the website of the Ministry of Health. [www.salute.gov.it/statistiche](http://www.salute.gov.it/statistiche).

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

Coverage: Total survey on all paediatricians practising for the National Health System. They provide the first level care to all citizens under 14 (consultations, visits, prescription of medicines, and referrals for laboratory tests or specialist visits). They have a contract with the National Health System.

b) **For General paediatricians NOT practising for the National Health System:**

Source of data: **IQVIA ITALIA** - OneKey database. <https://www.iqvia.com/>.

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

Coverage: Practising Paediatricians NOT practising for the National Health System.

***Obstetricians and gynaecologists, Psychiatrists, Medical group of specialists, Surgical group of specialists, Other specialists not elsewhere classified***

Source of data: **IQVIA ITALIA** – One-Key database. <https://www.iqvia.com/>.

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

Coverage: Data refer to practising physicians by categories.

***Medical doctors not further defined***

Data not applicable.

## **Japan**

Data not available, except for a few specialties below. In Japan, physicians are not separated into GPs and specialists.

***General paediatricians, Obstetricians and gynaecologists, Psychiatrists***

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).

Coverage: Head count data.

***General paediatricians***

Coverage:

- Data consist of pediatricians working at medical institutions (including those who work as clinical teaching staff at medical school hospitals). Data include foreign pediatricians licensed to practice. Data exclude pediatricians working in the areas such as industry, research and administration, pediatricians working abroad, and not-acting pediatricians.
- Data include doctors-in-training.

***Obstetricians and gynaecologists***

Coverage:

- Data consist of obstetricians working at medical institutions that fall under the department category of “obstetrics and gynaecology”, “obstetrics”, and “gynaecology” (including those who work as clinical teaching staff at medical school hospitals). Data include foreign obstetricians licensed to practice. Data exclude obstetricians working in the areas such as industry, research and administration, obstetricians working abroad, and not-acting obstetricians.
- Data include doctors-in-training.

***Psychiatrists***

Coverage:

- Data consist of psychiatrists working at medical institutions (including those who work as clinical teaching staff at medical school hospitals). Data include foreign psychiatrists licensed to practice. Data exclude psychiatrists working in the areas such as industry, research and administration, psychiatrists working abroad, and not-acting psychiatrists.
- Data include doctors-in-training.

## Korea

Source of data: **Health Insurance Review & Assessment Service**, Healthcare resources by provider.

Coverage:

- Data exclude retired physicians and physicians working abroad.
  - Until 2010, medical residents cannot be split by specialty, hence they are all included in “Other specialists n.e.c.”.
- From 2011 onwards, medical residents are classified according to the specialty in which they are training.

Break in time series: 2011.

### ***General practitioners***

Coverage:

- Until 2010: Includes family medicine practitioners.
- From 2011: Includes family medicine practitioners and medical residents training in family medicine.

Break in time series: 2011. From 2011 onwards, medical residents training in family medicine are classified in general practitioners. (Until 2010, all medical residents are included in “Other specialists n.e.c.”).

### ***Other generalist (non-specialist) medical practitioners***

Coverage:

- Includes non-specialist medical practitioners and medical interns, general Korean oriental medicine doctors and Korean oriental medicine interns training in general practice. In 2021, the breakdown between these categories was the following:

<b>Other generalist (non-specialist) medical practitioners</b>		<b>Number</b>
Medical practitioners	Non-specialist medical practitioners	6 050
	Medical interns	2 981
Korean oriental medicine doctors	General Korean oriental medicine doctors	18 909
	Korean oriental medicine interns	302
Total		28 242

### ***General paediatricians, Obstetricians and gynaecologists, Psychiatrists, Medical group of specialists, Surgical group of specialists***

Coverage:

- Until 2010: Includes practitioners working in medical institutions.
- From 2011: Includes practitioners and residents working in medical institutions.

Break in time series: 2011. From 2011 onwards, data include also medical residents.

### ***Medical group of specialists***

Coverage: Includes medical group of specialties: internal medicine, neurology, oto-rhino-laryngology, dermatology, radiology, radio-oncology, pathology, tuberculosis and occupational medicine.

### ***Surgical group of specialists***

Coverage: Includes general surgery, orthopaedics, neurological surgery, thoracic and cardiovascular surgery, plastic surgery, anaesthesiology, intensive care, ophthalmology, urology, and accident and emergency medicine.

### ***Other specialists not elsewhere classified***

Coverage:

- Until 2010: Includes practitioners working in medical institutions and medical residents (training in all specialised field, including family medicine).
- From 2011: Includes practitioners and residents (training in relevant fields only, as described in the definition) working in medical institutions.
- Includes laboratory medicine, rehabilitation medicine, nuclear medicine, preventive medicine physicians and Korean oriental medicine doctors who have specialised field.

Break in time series: 2011. All medical residents are included in this category until 2010. From 2011 onwards, only residents training in the fields belonging to “other specialties” are included.

## Latvia

### Source of data:

- Since 2005: **Health Inspectorate of Latvia**; Register of Medical Practitioners and Medical Support Staff.

Reference period: 31 December.

Coverage: Interns and residents are included, and classified according to the specialty in which they are training.

### ***Generalist medical practitioners***

#### Coverage:

- General practitioners (GPs) started to develop as speciality at the beginning of 90ties and grew rapidly until 2002. At the same time proportion of therapists and paediatricians is decreasing as they are re-qualifying to GP, thus fulfilling the functions of primary medical care (interns, GP and paediatricians).

- Interns and residents in general practice are included.

- The breakdown between General practitioners and Other generalist (non-specialist) medical practitioners is not available.

### ***Medical group of specialists***

Break in time series: 2019. There was a new allocation of certain doctors in 2019. Medical group of specialists include physical and rehabilitation medicine physicians, hepatologists, specialists of palliative care and forensic medicine experts since 2019. In previous years they were included in the group of other specialists.

### ***Surgical group of specialists***

Coverage: Specialists in maxillo-facial surgery, dental and oral surgery are excluded.

### ***Other specialists not elsewhere classified***

Break in time series: 2019. There was a new allocation of certain doctors in 2019. Other specialists include physical and rehabilitation medicine physicians, hepatologists, specialists of palliative care and forensic medicine experts until 2018. Afterwards they are included in the medical group of specialists.

### ***Medical doctors not further defined***

Coverage: All physicians have been classified into more specific categories; therefore 0 is entered for the whole time series since 2005.

## 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>.

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

Coverage: Predominant area of practice is used as criterion to classify physicians by categories.

Break in time series:

- 2011: Since year 2011, interns and residents are included in the respective categories of physicians by specialties.

- In year 2010 and earlier, interns and residents were included in the category *Medical doctors not further defined*.

### ***General practitioners***

Coverage: Data include family doctors (general practitioners) and therapists in primary healthcare.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Data include medical doctors (general). The number of medical doctors (non-specialist) is increasing.

### ***Obstetricians and gynaecologists***

Coverage: Data include physicians, obstetricians, gynaecologists and genetics physicians.

### ***Other specialists not elsewhere classified***

Coverage: Data include laboratory physicians and physiology physicians.

### ***Medical doctors not further defined***

Coverage: Up to 2010, data include all residents as they cannot be classified by specialties. Since 2011, residents are included in respective categories of physicians.

## **Luxembourg**

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

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

Coverage:

**Until 1999:**

- Includes physicians working in administration and research.
- Retired physicians are not included. However, the end of activity of self-employed physicians is often noted with some time lag.

**From 2000:**

- Practising physicians.
- Doctors who do not work in direct contact with patients (laboratories, administration, R&D, etc) are excluded.

Deviation from the definition: stomatologists, dental and maxillofacial surgeons are included.

Break in time series: 2000.

### ***Generalist medical practitioners, General practitioners***

Coverage: Interns specialising in general practice in Luxembourg are included since 2000.

### ***Psychiatrists***

Coverage/Break in time series: Since 2005, psychiatry, neuropsychiatry and child psychiatry are included. Until 2004, only psychiatry is included.

### ***Medical group of specialists***

Coverage/Deviation from definition:

- The specialty "nephrology" is included within the medical group of specialties, as in Luxembourg nephrology is an internal medicine specialty.
- Physicians working in laboratories (such as microbiologists, pathologists and haematologists) are not included.

### ***Surgical group of specialists***

Deviation from the definition/Break in time series: Since 2014, stomatologists, dental and maxillofacial surgeons are included. Before 2014, they are included in 'other specialists not elsewhere classified'. Dentists are not included.

### ***Other specialists not elsewhere classified***

Break in time series: Since 2014, stomatologists, dental and maxillofacial surgeons are not included as they are counted in the surgical group of specialists. Before 2014, stomatologists, dental and maxillofacial surgeons are included. Dentists are not included.

## **Mexico**

Source of data: **Ministry of Health**. Bulletin of Health Information and Statistics. National Health System, Vol. 1, "Human and material health resources" 1990 to 2002. For 2003 to 2021, data are taken from the National Health Information System (SINAIS). In the case of the private sector, for 2002 to 2021 the data are taken from the **National Institute of Statistics and Geography (INEGI)**. National Survey on Medical units with Inpatient Hospital Services.

Coverage:

- The data presented include public and private human resources from the health sector.
- In the case of private providers, personnel on the payroll and personnel in special agreement are included.
- Some double counting may occur as physicians can work in the public and private sector simultaneously.
- Information is presented as a head count.

### ***General practitioners***

Coverage:

- Since 2003, data include only general and family practitioners who have completed a basic medical university education and who have a professional license.
  - From 1990 to 2002, data include also medical interns who have completed their university education in basic medical education and who are undertaking postgraduate clinical training. From 2003 onwards, these medical interns are reported in the category “Other generalist (non-specialist) medical practitioners”.
- Break in time series: 2003.

#### ***Other generalist (non-specialist) medical practitioners***

Coverage: Data include medical interns who have completed their university education in basic medical education and are undertaking postgraduate clinical training. In Mexico, medical interns are trainees who can graduate either as general practitioner, general surgeon or homeopathic surgeon physician. These data are available separately as of 2003 (they are included in General practitioners before 2003).

#### ***Psychiatrists***

Break in time series: Data from the Ministry of National Defense (SEDENA) are included in 2003 only (259 psychiatrists). Data from the IMSS are not included in 2005-06 (about 244 per year).

#### ***Medical group of specialists***

Coverage:

- Data include medical residents until 2002. Since 2003, medical residents are included in “Other specialists n.e.c.”.
- In 2001, the number of medical specialists decreased by 27% in the private sector.
- In 2005, there was a 50% increase in the number of specialists in the IMSS.

Break in time series: 2003.

#### ***Other specialists not elsewhere classified***

Coverage: Since 2003, all medical residents are included in this category because this group cannot be broken down according to training specialty (the area of specialisation of medical residents is unknown). (Before 2003, medical residents are included in the category “Medical group of specialists”.)

## **Netherlands**

Source of data:

- From 1999 onwards: Data based on **BIG register** (register of (para) medical professions) and **SSB database** (micro-integrated database of **Statistics Netherlands** with data from municipal register, tax register, social security, business register). Physicians in training: **RGS** (Registratiecommissie Geneeskundig Specialisten: Registration committee medical specialists).

Reference period:

- Last Friday before Christmas.
- Physicians in training: 1 January of year t+1.

Coverage: From 2014 onwards, data refer to practising physicians, i.e. physicians who:

- are licensed to practice; and
- live and work in the Netherlands. Their license requires that they have been practising in the past five years.

Deviation from the definition: Data from 1999 to 2013 refer to professionally active physicians.

Break in time series: 2014, 2018.

- As from 2014, a new method was adapted to physicians with a specialism and general practitioners. As the license register requires physicians to have been practising in the past five years, the sector of employment was not used anymore in the selection method (except for physicians without specialisation). Research showed this was a better estimate for the required definition of practising physicians. The result is a slight increase in their numbers from 2014 onwards.

- In 2018 there was a re-registration of physicians without specialisation, and therefore we changed the method and did not need to use a sector of employment selection for this group anymore. The net change is hardly visible in the data.

#### ***General practitioners***

Source of data:

\* Practising GPs:

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

- 1980-1998: Practising GP's: **Netherlands Institute for research of Primary Health Care (NIVEL)**.

\* Doctors in training for GP, Physicians in training:

- From 2009 onwards: **RGS** (Registratiecommissie Geneeskundig Specialisten: Registration committee medical specialists).

- Until 2009: **KNMG** (Royal Dutch Society for the Advancement of Medicine).

Reference period:

- From 1999 onwards: last Friday before Christmas.

- 1980-1998: 1<sup>st</sup> January year t+1 is used for 31 December year T.

- Physicians in training: 1 January of year t+1.

Coverage:

- Data from 2014 refer to practising physicians. Data refer to GP's who:

- are licensed to practice with the specialty "general practice";
- live and work in the Netherlands. Their license requires that they have been practising in the past five years.

Deviation from the definition:

- Data from 1999 to 2013 refer to professionally active physicians. Data refer to GP's who:

- are licensed to practice with the specialty "general practice";
- live and work in the Netherlands;
- for employees: are active in a health- or social care sector or a health-care related sector; or
- for self-employed GP's: are economically active (their license requires that they have been practising – not necessarily fulltime – in the past five years).

- Data up to 1998 refer to physicians licensed to practice.

- List of NACE codes used for health- or social care and healthcare related sectors: NACE v1: 851, 853, 2441, 2442, 331, 5146, 5231, 5232, 5248.2 (opticians), 6022 (part of transport for healthcare), 6602.3, 6602.4 (pension funds part for healthcare occupations), 6603 (part of health insurance funds and companies), 7310.3 (medical and pharmacological research and development), 745 (temporary work companies; very important for nurses, caring personnel and physiotherapists), 7522 (Ministry of Defence, including military hospital), 7523.2 (part of medical personnel for prisons, including prison hospital), 753 (compulsory healthcare insurance, operations for exceptional medical expenses act), 8022, 8030, 9304, 9305.

- NACE v2: 86, 87, 88, 212, 266, 325, 4646, 4773, 4774, 4778.2, 4932, 6530.3, 6530.9, 6512, 7211.2 + 7219.3 (R&D for health, medical products or pharmaceutical processes), 782, (8412 will be included when NACE v2 is available in SSB; Regulation of the activities of providing healthcare, education, cultural services and other social services, excluding social security), 8422, 8423.2, 843, 8532, 854, 9313, 9609.

Break in time series: 1999, 2014.

***Other generalist (non-specialist) medical practitioners***

Source of data:

- Data for professionally active and licensed other generalist medical practitioners 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).

Coverage: This group refers to "Arts niet in opleiding tot specialist" (Physician not in training for a specialty). This is calculated as a remainder: total active physicians minus all active physicians with a specialty (including GP's) minus all active physicians in training for a specialty.

***Specialist medical practitioners (and sub-categories)***

Source of data:

- From 1999 onwards: Data based on **BIG register** (register of (para)medical professions) and **SSB database** (micro-integrated database of **Statistics Netherlands** with data from municipal register, tax register, social security, business register). Physicians in training: **RGS** (Registratiecommissie Geneeskundig Specialisten: Registration committee medical specialists).



- Up to and including 1998: The **BIG register** (register installed by the Individual Health Care Professions Act), annual report (primary source: **KNMG, Medisch Specialisten Registratie Commissie** - Royal Dutch Society for the Advancement of Medicine, Medical Specialists Registration Commission).

Coverage:

- Data from 2014 onwards refer to practising physicians. Data refer to physicians who:
  - are licensed to practice with the specialty;
  - live and work in the Netherlands. Their license requires that they have been practising in the past five years.

Deviation from the definition:

- Data from 1999-2013 refer to professionally active physicians. Data refer to physicians who:
    - are licensed to practice with the specialty;
    - live and work in the Netherlands;
    - for employees: are active in a health- or social care sector or a health-care related sector; or
    - for self-employed physicians: are economically active (their license requires that they have been practising – not necessarily fulltime – in the past five years).
  - Data up to 1998 refer to physicians licensed to practice.
  - List of NACE codes used for health- or social care and healthcare related sectors: NACE v1: 851, 853, 2441, 2442, 331, 5146, 5231, 5232, 5248.2 (opticians), 6022 (part of transport for healthcare), 6602.3, 6602.4 (pension funds part for healthcare occupations), 6603 (part of health insurance funds and companies), 7310.3 (medical and pharmacological research and development), 745 (temporary work companies; very important for nurses, caring personnel and physiotherapists), 7522 (Ministry of Defence, including military hospital), 7523.2 (part of medical personnel for prisons, including prison hospital), 753 (compulsory healthcare insurance, operations for exceptional medical expenses act), 8022, 8030, 9304, 9305.
  - NACE v2: 86, 87, 88, 212, 266, 325, 4646, 4773, 4774, 4778.2, 4932, 6530.3, 6530.9, 6512, 7211.2 + 7219.3 (R&D for health, medical products or pharmaceutical processes), 782, (8412 will be included when NACE v2 is available in SSB; Regulation of the activities of providing healthcare, education, cultural services and other social services, excluding social security), 8422, 8423.2, 843, 8532, 854, 9313, 9609.
- Break in time series: 1999, 2014.

***Surgical group of specialists***

Coverage: Physicians with the specialty “emergency medicine” are included, although in The Netherlands these physicians are not surgeons.

***Other specialists not elsewhere classified***

Coverage: Categories included in The Netherlands data are: occupational medicine, insurance health, community health, clinical chemistry (formerly a specialty), rehabilitative care, nursing home physicians, and physicians for the mentally handicapped. Physicians with specialties like forensic medicine which require additional education for several years but are not officially recognized as a specialty in The Netherlands are also included.

***Medical doctors not further defined***

Coverage: Since 1999, all physicians have been allocated to specific groups of specialties.

## **New Zealand**

Source of data: Estimated figures based on responses from the **NZ Medical Council Workforce Survey** and the number of doctors on the **NZ Medical Council Register**.

- Figures refer to practising physicians.
- The figures are an estimation of the actual number of generalist medical practitioners. The estimated figures were calculated by summing the number of doctors working four or more hours per week in medicine, divided by the survey response rate. The survey response rate was calculated by summing the number of survey respondents divided by the total number of registered doctors with an annual practicing certificate as at 31 March.
- Any type of activity (such as osteopathy, geriatric...) is included as long as the individual is working as a physician, GP or specialist.
- Stomatologists, osteopaths, geriatricians are included.
- The data include all physicians who work in NZ irrespective of their country of qualification or ethnicity. Doctors



are included as part of the medical practitioner workforce either when they become graduates, in the seventh (or subsequent) year of working in medicine in New Zealand or when an overseas graduate receives provisional or full registration to work medically in New Zealand.

- To be included in the survey, the doctor has to be working four or more hours per week in medicine. However, medicine may not be his/her primary source employment; for example, he/she may teach.

Break in time series: 2010, 2014, 2015, 2020.

- 2010. In 2018, data have been revised back to 2010. In order to improve accuracy, the survey responses to 'work type' have been cross-referenced with reported 'work role'. This has enabled to reduce the number of doctors not further defined.

- 2014. Change in methodology for data from 2014 onwards. Figures are based on responses from the NZ Medical Council Workforce Survey, adjusted for the response rate for that year, to give an estimate of the total workforce in each category. In 2019, historical figures for 2014 to 2016 were adjusted to ensure consistency with 2017 and 2018 data.

- 2015. Change in methodology: The NZ Medical Council Workforce survey shifted from a mail to an online format. This transition has improved response rate and additionally potentially improved data accuracy.

- 2020. Up until 2019, the data were supplied to the Ministry of Health by the Medical Council. In 2020, they were calculated within the Ministry of Health using a combination of comprehensive register data and less comprehensive survey data. In 2019 the survey response rate was 78% and in 2020 it increased to 95%. Fully qualified specialists are identified in the registry data but those in training would only be identified by their response in the survey. Thus, the higher response in 2020 has allowed to allocate these trainees to their specialties rather than having to, in the absence of any information, assign them to the "Other generalists" category.

### ***Generalist medical practitioners (and sub-categories)***

#### Coverage:

- Definition of General Practitioners: GPs are the largest group of primary care practitioners.

- The following NZ workforce survey 'work type' categories have been used for this workforce indicator: General practice, Primary care, Accident and medical practice, and Rural Hospital Medicine.

- The NZMC advised moving "Accident and medical practice" from surgical to general practice as they believe that in the New Zealand setting, it has more in common with general practice than the surgical specialties. NZMC further advised that "Accident and medical practice" was not really a recognised definition prior to 2000. It would have been added to the survey around the same time that it was recognised as a vocational scope of practice. Doctors who were doing work in this area prior to 2000 would either have defined themselves as general practice, or as something else in the 'surgical' area, depending on the nature of what they were doing. The figures prior to 2000 for physicians in general practice have been removed since they are likely to be a slight undercount compared with the later definition post-2000 which includes physicians working in the "Accident and medical" vocational scope of practice.

### ***General practitioners***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: General practice. The 'work role' of General Practitioner has also been included in this category.

Break in time series: 2020. Defined by main work type of General Practice only.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Primary care, Accident and medical practice, and Rural Hospital Medicine. Doctors with an identified 'work role' of House Officer have been included in this category, regardless of their reported 'work type'.

Break in time series: 2020. Work type of 'Urgent Care' now included, House Officers identified by the work type 'House Officer Rotations'.

### ***Specialist medical practitioners (and sub-categories)***

Coverage: Specialists are defined as doctors who, by virtue of post-graduate training, examination and experience have been admitted to membership of a professional association of specialists.

### ***General paediatricians***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Paediatrics.

### ***Obstetricians and gynaecologists***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Obstetrics and Gynaecology.

### ***Psychiatrists***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Psychological medicine and psychiatry.

### ***Medical group of specialists***

Coverage:

- The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Basic medical science, Breast medicine, Clinical genetics, Dermatology, Diagnostic and interventional radiology, Family Planning, Internal medicine, Musculo-skeletal medicine, Occupational medicine, Ophthalmology, Palliative medicine, Pathology, Public health medicine & mgmt, Radiation oncology, Rehabilitation medicine, Sexual health medicine, Sports Medicine.

- The NZMC advised moving family planning, occupational medicine, and sports medicine to 'Medical Group of specialties' as they arguably 'non-surgically treat physical disorders and diseases' but are not general practitioners as they do limit their practice to certain diseases or methods of treatment.

Break in time series: 2020. Now also includes work types of 'Skin cancer' and 'Clinical Forensic Medicine'.

### ***Surgical group of specialists***

Coverage: The following NZ workforce survey 'work type' categories have been used for this workforce indicator: Anaesthesia, Emergency medicine, Intensive care medicine, Surgery: cardiothoracic, Surgery: general, Surgery: neurosurgery, Surgery: orthopaedic, Surgery: other, Surgery: otolaryngology, Surgery: paediatric, Surgery: plastic, Surgery: urology, Surgery: vascular.

### ***Medical doctors not further defined***

Coverage:

- The following NZ workforce survey 'work type' categories have been used for this workforce indicator: House officer rotations, Not recorded, Other.

- Medical Administration is excluded from the 'Medical doctors not further defined' category; therefore, the sum of physicians by category equals to the total provided for practising physicians.

- Both interns and residents are included in NZ figures for practising physicians. 'Interns' in New Zealand are generally understood to be doctors in their first year as a doctor following graduation who work under the overall supervision of an intern supervisor. After this initial year, they generally get a general scope of practice (full registration). The term 'residents' most closely matches doctors in vocational training in New Zealand.

- There is some fluctuation in the time series, based on survey data. The main causes of this fluctuation are changes in how doctors report their work type and in the number of doctors who choose not to provide further details around the type of work they are doing.

Break in time series: 2020. This category now consists just of doctors with the main work type of 'Other' ('House Officer Rotations' is grouped under 'Other generalist').

## **Norway**

Source of data:

- From 2002: **Statistics Norway**; Register-based statistics on employment of health-care personnel. See [http://www.ssb.no/hesospers\\_en/](http://www.ssb.no/hesospers_en/).

- For the years prior to 2002: The **Norwegian Medical Association** was the source for this information.

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

Coverage:

- Data on medical specialists are based on each physician's latest specialty. Each individual may have as many as three specialties, but only one of them is counted here.

Deviation from the definition:

- Interns and residents training for a specialty cannot be identified as specialists, and therefore are included in the category "Other generalist (non-specialist) medical practitioners".

Break in time series: 2002, 2009, 2015.

- The figures from 1993 and 1998 are the figures received from the Norwegian Medical Association and are not directly comparable with the figures from 2002 and onwards.
- 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).

### ***Generalist medical practitioners***

Break in time series: 2008. From 2002 to 2007, data include only physicians specialised in general practice. From 2008, data include general practitioners and physicians specialised in general practice.

### ***General practitioners***

Coverage: Data on general practitioners are based on personnel fulfilling one of the following criteria:

- Occupation as general practitioner.
- Practising physicians with a general practice contract.
- Last specialisation in general practice.
- Personnel working in NACE 8621 (general medical practice) and where occupational data are missing.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Data on other generalist (non-specialist) medical practitioners are based on personnel fulfilling the following criteria:

- Non-specialists;
- Not classified as a general practitioner.

## **Poland**

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

- Until 2018: survey of medical personnel based on reports provided by healthcare units and doctor’s practices.
- From 2019 onwards: estimates based on administrative sources, i.e. register of licensed physicians (Polish Chamber of Physicians), files provided by Social Insurance Institution and registers of healthcare establishments including doctor’s practices.

Reference period: 31<sup>st</sup> 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.
- From 2019 onwards: Physicians are categorised based on the recent achieved specialization.

Break in time series:

- 2019: The data until 2018 are underestimated due to high non-response rates in the survey.

Note: Grade I and grade II specialisations were granted when the previous system was in force. Doctors, according to Polish law, could achieve this by September 1998. Obtaining a grade II specialisation is equivalent to the current title of specialist, but the grade I specialisation is not equivalent to the title of specialist and has no counterpart in the current system of specialised training.

### ***General practitioners***

Coverage: Physicians with grade II specialisation, physicians with title of specialist in family medicine or physicians undergoing training in this specialty.

***Other generalist (non-specialist) medical practitioners***

Coverage: Physicians with Grade I specialisation in any specialty, interns and physicians without specialisation.

***Paediatricians***

Coverage: Physicians with grade II specialisation or with title of specialist in general paediatrics or undergoing training in this specialty.

Break in time series: 2010. Prior to 2010, neonatology was classified under nephrology under “General paediatricians”.

***Obstetricians and gynaecologists***

Coverage: Physicians with grade II specialisation or with title of specialist in obstetrics and gynaecology, clinical genetics or undergoing training in these specialties.

Break in time series: 2010. Before 2010, neonatologists were included in this category.

***Psychiatrists***

Coverage: Physicians with grade II specialisation or with title of specialist in psychiatry, children and youth psychiatry or undergoing training in these specialties.

***Medical group of specialists***

Coverage: Physicians with grade II specialisation or with title of specialist in internal diseases, allergology, angiology, audiology and phoniatrics, balneology and physical medicine, cardiology, clinical immunology, clinical oncology, clinical toxicology, dermatology and venereology, diabetology, endocrinology, forensic medicine, gastroenterology, geriatrics, gynecology oncology, haematology, hypertensiology, infectious diseases, lung diseases, medical microbiology, medical rehabilitation, neonatology, nephrology, neurology, neuropathology, nuclear medicine, oncological radiotherapy, oto-rhino-laryngology, palliative medicine, pathology, pediatric cardiology, pediatric neurology, paediatric oncology and haematology, paediatric oto-rhino-laryngology, occupational medicine, radiology and diagnostic imaging, rheumatology, sexology, sports medicine, transfusion medicine and transport medicine or undergoing training in these specialties.

Break in time series: 2010. Prior to 2010, nephrology was classified under “Surgical group of specialties” and neonatology under “General paediatricians”.

***Surgical group of specialists***

Coverage: Physicians with grade II specialisation or with title of specialist in: accident and emergency medicine, cardiac surgery, clinical transplantology, general surgery, intensive care and anaesthesiology, maxillo-facial surgery (excluding dentists with this specialisation), neurosurgery, ophthalmology, orthopaedics and traumatology of locomotor system, paediatric surgery, paediatric urology, plastic surgery, surgical oncology, thoracic surgery, urology, vascular surgery or undergoing training in these specialties.

Break in time series: 2010. Prior to 2010, nephrology was classified under “Surgical group of specialties”.

***Other specialists not elsewhere classified***

Coverage: Physicians with grade II specialisation or with title of specialist in: clinical pharmacology, epidemiology, laboratory diagnostics, public health or other rare specialties, or physicians undergoing training in these specialties.

***Medical doctors not further defined***

Data not applicable. All physicians were classified to more specific categories of physicians.

**Portugal**

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

Reference period: 31<sup>st</sup> 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, active or inactive.

- Physicians with more than one specialisation (e.g. General Practice and Paediatrics) will be counted twice.

Deviation from the definition:

- Data refer to physicians licensed to practice.
- It's not possible to determine the main area of practice of doctors, because data is provided to INE aggregated by municipality.
- Some physicians are licensed to practice in more than one specialty. These physicians are accounted in all specialties they have (e.g. physicians with specialisations in General practice and Paediatrics will be counted twice). Therefore the sum of physicians by categories is higher than the actual total number of physicians.

### ***General practitioners***

#### Coverage:

- In Portugal "General practice and family medicine" is a specialisation.
- The denomination for the physicians included in this category was/is:
  - from 1983 to 1995: Generalists (Generalistas);
  - from 1996 to 1998: General and Family Medicine (Medicina Geral e Familiar).
  - from 1999 onwards: General and Family Medicine (Medicina Geral e Familiar) and non-specialised physicians **not** working in hospitals (they work in primary healthcare, as family doctors, but they don't have the specialty "General and family medicine").

Break in time series: 1999.

### ***Other generalist (non-specialist) medical practitioners***

Coverage: Until 1998, data include non-specialised physicians and medical interns without any area of specialisation. Since 1999, data include only those working in hospitals.

Break in time series: 1999.

### ***General paediatricians***

Coverage: Paediatricians.

### ***Obstetricians and gynaecologists***

Coverage: Obstetricians, Gynaecologists and more recently also Geneticists.

### ***Psychiatrists***

Coverage: Psychiatrists, Child / Paediatric Psychiatrists.

### ***Medical group of specialists***

Coverage: Medical group of specialties includes: Histopathology/Pathological Anatomy, Cardiology, Paediatric cardiology, Dermatovenereology, Infectious diseases, Endocrinology and nutrition, Gastro-enterology, Immunoallergology, Immunohemotherapy, Clinical pharmacology and therapeutics <https://www.ordemosmedicos.pt/?lop=conteudo&op=eae27d77ca20db309e056e3d2dcd7d69>, Haematology <https://www.ordemosmedicos.pt/?lop=conteudo&op=7eabe3a1649ffa2b3ff8c02ebfd5659f>, Internal medicine, Legal medicine/Forensics, Nuclear medicine, Tropical medicine, Neurology, Neuroradiology, Medical oncology, Otorhinolaryngology, Clinical pathology, Pneumology/Respiratory medicine, Radiodiagnostic/Clinical radiology, Radiotherapy/Clinical oncology, Rheumatology, Occupational medicine and (since 1992) Public health.

### ***Surgical group of specialists***

Coverage: Surgical group of specialties includes: Anaesthetics, Angiology and vascular surgery, Cardio-thoracic surgery <https://www.ordemosmedicos.pt/?lop=conteudo&op=cfecdb276f634854f3ef915e2e980c31>, General surgery, Paediatric surgery <https://www.ordemosmedicos.pt/?lop=conteudo&op=bd686fd640be98efaae0091fa301e613>, Plastic surgery <https://www.ordemosmedicos.pt/?lop=conteudo&op=a597e50502f5ff68e3e25b9114205d4a>, Renal medicine, Neurosurgery, Ophthalmology, Orthopaedics, Urology and Cardiac Surgery and Thoracic Surgery.

### ***Other specialists not elsewhere classified***

Coverage: Other specialties include: Sports medicine <https://www.ordemosmedicos.pt/?lop=conteudo&op=69adc1e107f7f7d035d7baf04342e1ca>, Physical and rehabilitation medicine.

### ***Medical doctors not further defined***

- Data not applicable.

## Slovak Republic

Data not available. (Suitable data source for providing indicators is under development.)

## Slovenia

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

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

Coverage:

- The National Health Care Providers Database is a registry with total (100 %) coverage of health workers.
- Data refer to practising physicians.

### ***General practitioners***

Coverage: Includes the following medical specialities: General medicine, Family medicine.

### ***Paediatricians***

Coverage: Includes the following medical specialities: Paediatrics, School medicine.

### ***Obstetricians and gynaecologists***

Coverage: Includes the following medical specialities: Gynaecology and obstetrics.

### ***Psychiatrists***

Coverage: Includes the following medical specialities: Psychiatry, Neuro-Psychiatry, Child and adolescent psychiatry.

### ***Medical group of specialists***

Coverage: Includes the following medical specialities: Internal medicine, Communicable diseases (infectology), Neurology, Dermatovenereology, Otorhinolaryngology, Transfusion medicine, Physical and rehabilitation medicine, Radiology, Oncology with radiotherapy, Nuclear medicine, Pathology, Forensic medicine, Medical microbiology, Occupational, traffic and sports medicine, Clinical microbiology, Hematology, Rheumatology, Gastroenterology, Internal oncology, Nephrology, Pneumology, Child neurology.

### ***Surgical group of specialists***

Coverage: Includes the following medical specialities: General surgery, Orthopaedic surgery, Ophthalmology, Anaesthesiology, Intensive medicine, Emergency medicine, Thoracic surgery, Traumatology, Urology, Neurosurgery, Cardiovascular surgery, Plastic, reconstructive and aesthetic surgery, Abdominal surgery, Oral surgery, Maxillo-facial surgery.

Deviation from definition: Oral surgery and Maxillo-facial surgery are included. In 2021 Maxillo-facial surgery represents 3.34% of total.

### ***Other specialists not elsewhere classified***

Coverage: Includes the following medical specialities: Epidemiology, Hygiene, Social medicine, Medical biochemistry, Public health medicine, Clinical genetics, Clinical psychology.

### ***Medical doctors not further defined***

Coverage: Includes the following medical specialities: Orthodontics, Child and preventive dentistry, Dental prosthetics, Endodontics, Parodontology.

## Spain

### ***Generalist medical practitioners, General practitioners***

Source of data: **Ministry of Health**. From **Primary Care Information System (SIAP)**.

<https://www.sanidad.gob.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm>.

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

Coverage:

- Data include number of persons who work in healthcare centres of National Health System at the end of the calendar year. Data for private sector are not available.
  - Included: Interns and residents who are training to become GPs (3 years is required to qualify as GP; before 2005/2006, it used to be 4 years).
  - Since 2018, data also include doctors who work in urgent primary care.
- Break in time series: 2018.

***Specialist medical practitioners and sub-categories (except General paediatricians: see below)***

Source of data:

- Up to 2009: **Ministry of Health**, from **Statistics on Health Establishments Providing Inpatient Care (ESCRI)**. <https://www.sanidad.gob.es/estadEstudios/estadisticas/estHospiInternado/inforAnual/homeESCRI.htm>.
- Since 2010: **Ministry of Health**, from **Specialised Care Information System** (Sistema de Información de Atención Especializada - SIAE).
- Since 2012 (for **Surgical group of specialists** only): **Ministry of Health**, from **Specialised Care Information System** (Sistema de Información de Atención Especializada - SIAE) and from **Primary Care Information System** (Sistema de Información de Atención Primaria - SIAP).
- Since 2018 (for **Other specialists elsewhere classified** only): **Ministry of Health**, from **Specialised Care Information System** (Sistema de Información de Atención Especializada - SIAE) and from **Primary Care Information System** (Sistema de Información de Atención Primaria - SIAP).  
<https://www.sanidad.gob.es/estadEstudios/estadisticas/estHospiInternado/inforAnual/homeESCRI.htm>  
<https://www.sanidad.gob.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm>

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

Coverage:

- All public and private hospitals in Spain are included. Specialised out-patient clinics depending on a general hospital (National Health System) are also included.
- Number of physicians employed in hospital.
- Doctors in training (interns and residents) are included in each specific sub-category since 2010 (until 2009, all doctors in training are included in the category “Other specialists n.e.c.”).

Deviation from the definition: Data on specialists refer only to physicians working in hospital. Hence the sum of physicians by categories does not correspond to the total number of physicians.

Break in time series: 2010, 2012, 2018.

- Before 2010, all physicians in training (interns and residents) are included in “Other specialists n.e.c.”. From 2010 onwards, interns and residents are allocated in the specialty in which they are training.
- Until 2009 Family practitioners in training in hospital are included (in “Other specialists n.e.c.”). Since 2010 Family practitioners in training in hospital are excluded.
- Since 2012, data also include doctors who work in accident and emergency medicine out of hospitals (urgency and emergency 112/061), reported in Surgical group of specialists.
- Since 2018, data also include doctors who work in homecare palliative support, reported in Other specialists elsewhere classified.

***Psychiatrists***

- Child psychiatrists are included.

***Medical group of specialists***

Break in time series: 2010.

- Radiologists are included since 2010. (They are included in the category “Other specialists n.e.c.” with labs, pathologists and doctors in training until 2009).
- Oto-rhino-laryngologists are included since 2010. (They are included in the “Surgical group of specialists” until 2009).

***Surgical group of specialists***

Coverage:

- Data refer to specialists working in hospitals. Since 2012, data also include doctors who work in accident and emergency medicine out of hospitals (urgency and emergency 112/061).



- Includes Oto-rhino-laryngology until 2009. (Oto-rhino-laryngologists are included in the “Medical group of specialists” since 2010).

Break in time series: 2010 and 2012.

### ***Other specialists not elsewhere classified***

#### Coverage:

- Data include the specialties “clinical analysis”, “biochemistry” and “rehabilitation”. Since 2018, data also include doctors who work in homecare palliative support.

- Doctors in training (interns and residents) are included until 2009. Some doctors in training are still included since 2010 (Biochemistry, Clinical Pharmacology, Clinical Analysis and Physical Medicine - Rehabilitation).

Break in time series: 2010, 2018.

- Before 2010, all physicians in training (interns and residents) are included in “Other specialists n.e.c.”. From 2010 onwards, interns and residents are allocated in the specialty in which they are training.

- Until 2009 Family practitioners in training in hospital are included. Since 2010 Family practitioners in training in hospital are excluded.

- Radiologists are included in “Other specialists n.e.c.” until 2009. (Since 2010, they are included in “Medical group of specialists”.)

### ***General paediatricians***

#### Source of data:

- **Ministry of Health**, from **Primary Care Information System (SIAP)**.

<https://www.sanidad.gob.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm>.

- **Ministry of Health**, from **Specialised Care Information System** (Sistema de Información de Atención Especializada - SIAE), since 2010 only.

<https://www.sanidad.gob.es/estadEstudios/estadisticas/estHospiInternado/inforAnual/homeESCRI.htm>

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

#### Coverage:

- Up to 2009: Data include number of persons who work in healthcare centres of National Health System that operate as general practitioners for children between 0 and 14 years. Before 2010, interns and residents are not included.

- Since 2010: Data include number of persons who work in healthcare centres of the National Health System that operate as general practitioners for children between 0 and 14 years + number of persons who work in hospitals + interns and residents in training in this specialty.

Break in time series: 2010. Since 2010 data include paediatricians and medical interns and residents specialising in paediatrics working in a hospital (public and private).

## **Sweden**

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

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

#### Coverage:

- Physicians include all persons with a Swedish physician’s license and native-trained pre-licensed physicians employed within the health-care sector.

- Foreign-trained physicians without a Swedish license are not registered as physicians when undertaking clinical training as part of the licensing process. They are therefore not included in employment data.

- 100% coverage for licensed practising physicians until year 2020.

- The entire time series has been revised in 2023.

### ***Generalist medical practitioners (and sub-categories)***

#### Coverage:

- General practitioners include all physicians employed within the health-care sector whose latest specialist competence is in family medicine.

- All generalist practitioners must be specialized.

### ***Specialist medical practitioners (and sub-categories)***



Coverage: Specialists include all physicians employed within the health-care sector possessing a specialist competence (excluding competence in family medicine).

### ***Medical doctors not further defined***

Coverage: Data include pre-licensed native-trained physicians during training, but not pre-licensed foreign-trained physicians during training.

## **Switzerland**

Source of data: **Swiss Medical Association (FMH)**, Bern; Medical Statistics of Physicians; yearly census.

Reference period: Data as of December 31.

Coverage: Full coverage, based on survey data.

Deviation from the definition:

- The data refer to professionally active physicians until 2007.
- Interns and residents are not included until 2007. Since 2008, physicians in training are reported in “Medical doctors not further defined” (data on physicians in training are not available by categories).

Break in time series: 2008.

### ***Generalist medical practitioners***

Coverage:

- Data also include “practitioner medical doctors”, to be understood as GPs without FMH postgraduate qualification (specialisation).
- The breakdown between “General practitioners” and “Other generalist (non-specialist) medical practitioners” is not available.

Deviation from the definition: Interns and residents are not included.

Break in time series: 2008, 2011.

- 2008. Since 2008, the category General medical practitioners also includes practitioner medical doctors (GP’s without postgraduate qualification).
- 2011. Since 2011, former specialists in internal medicine are registered in one single category under “Generalist medical practitioners”, according to the Swiss medical association.

Note: The strong rise in the number of GPs in years 2002 and 2003 is chiefly the result of the application of the free movement of persons (agreement with the EU) to health professions, especially concerning the recognition of foreign titles and subsequent modification of rules for applying for titles.

### ***Specialist medical practitioners (and sub-categories)***

- The last obtained specialty was used as criteria for categorising doctors with more than one specialty.

Deviation from the definition: Interns and residents are not included.

### ***Specialist medical practitioners, Medical group of specialists***

Break in time series: 2011. Since 2011, former specialists in internal medicine are not registered under medical specialists but in one single category under Generalist medical practitioners, according to the Swiss medical association.

### ***Medical doctors not further defined***

Coverage: No data on physicians in training by categories are available. Therefore, physicians in training are included in “Medical doctors not further defined” since 2008. Good global estimates of physicians completing their postgraduate medical education (resident medical officers) in training and specialising to become recognised GPs or specialists from the FMH (Swiss Medical Association) are 6913 physicians in 2008 and 6421 in 2009.

Break in time series: 2011.

## **Türkiye**

### ***Generalist medical practitioners (and sub-categories)***

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

Coverage:

- Up to 1999: Data include physicians working in public or university administration. General Practitioners (who are physicians without any specialty education) and all medical residents are included among generalist medical practitioners.
- From 2000 to 2005: Only number of GPs (physicians without any specialty education) in MoH, university and private sector. Medical residents are not included, which explains the sharp decrease in data between 1999 and 2000.
- From 2006 onwards: Data include MoH, university, private sector and others (other public establishments and local administrations). MoND-affiliated facilities are included since 2012.
- Since 2006, the number of generalist medical practitioners in Türkiye contains GPs, family physicians and family medicine residents. They may work both in primary care and hospitals.
- A GP is a general practitioner in medicine who has had 6-year basic medical education. GPs are physicians without any specialty education.
- A Family Physician (Doctor) is a medical professional who received 3-year Family Medicine residency training after graduation from a 6-year medical faculty.
- A Family Medicine Resident (Assistant) is a medical professional who is undergoing a 3-year Family Medicine residency training after graduation from a 6-year medical faculty.
- GPs and family physician specialists acting as managers are also included.

Deviation from the definition:

- Data refer to professionally active physicians.
- The breakdown between General practitioners and Other generalist (non-specialist) medical practitioners is not available. Hence all generalist medical practitioners are reported in the category “General practitioners”.

Break in time series: 2000, 2006 and 2018.

- 2000 and 2006 (see above).
- 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.

***Specialist medical practitioners (and sub-categories)***

Source of data:

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

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

Coverage:

- Data include Paediatricians, Obstetricians and gynaecologists, Psychiatrists, Medical specialists, Surgical specialists and Medical interns or residents training for a specialty.
- Ministry of Health, university, private and other sectors (other public establishments, local administrations and since 2012 MoND-affiliated facilities) are included.
- From 2000 to 2005, the number of specialist medical practitioners includes all medical residents. Since 2006, family medicine residents are included under generalist medical practitioners, and the other medical residents are reported according to their specific specialty.

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

Break in time series: 2000, 2018.

- The strong increase in 2000 is partly due to improvement in registration.
- Medical residents are included since 2000 (before 2000, they are reported under generalist medical practitioners).
- 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.

***Paediatricians***

Coverage: Data include general paediatric specialists and medical residents of paediatrics in all healthcare facilities.

***Obstetricians and gynaecologists***

Coverage: Data include obstetrics and gynaecology specialists and medical residents of obstetrics and gynaecology in all healthcare facilities.

### ***Psychiatrists***

Coverage: Data include psychiatry specialists and medical residents of psychiatry in all healthcare facilities.

### ***Medical group of specialists***

Coverage:

- Data include medical specialists and medical residents of these branches in all healthcare facilities.
- Physical treatment and rehabilitation specialists and residents are included in the internal medicine category.

### ***Surgical group of specialists***

Coverage:

- Data include surgical specialists and surgical residents of these branches in all healthcare facilities.
- Specialties are: General surgery, Neurological surgery, Plastic surgery, Ophthalmology, Orthopaedics, Thoracic surgery, Cardiovascular surgery, Intensive care & anaesthesiology, Urology, and Accident and emergency medicine.

### ***Other specialists not elsewhere classified***

Coverage: Specialist physicians and medical residents who cannot be classified elsewhere and whose branches are not known are put into this group.

### ***Medical doctors not further defined***

- Data not applicable.

## **United Kingdom**

### ***Generalist medical practitioners (and sub-categories)***

Source of data:

- **England:** For General Practitioners (GPs), the sources are:

- \* Up to 2014: NHS Digital, General & Personal Medical Services Statistics: <http://content.digital.nhs.uk/home>.
- \* 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.

- **Scotland:** Information Services Division, Scottish Workforce Information Standard System, GP Contractor Database.

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

- **Northern Ireland:** General Practitioners from Medlist, Business Services Organisation, General Medicine hospital doctors from Human Resource Management System, Department of Health, Social Services & Public Safety.

Reference period: Data as at 30<sup>th</sup> September.

Coverage:

- Does not include private sector.

- **Scotland:** Headcount includes Performer, Performer Salaried, Performer Registrar (GPs in training) and Performer Retainees. Data excludes locum staff.

- **Northern Ireland:** Includes estimates of General Medicine doctors practising in hospitals, excluding Hospital/Medical practitioner grade, Research Fellows and Clinical Assistants. The UK equivalent of interns and residents, i.e. foundation doctors and registrars, will be included in this data. Data for 2013 is not available due to the phased implementation of a new human resources IT system.

Deviation from the definition:

- **Scotland:** The sum of GPs and specialists is greater than the total number of physicians due to some staff holding more than one post. There is currently no conventional way of assigning such staff to one group only.

Estimation method:

- **Northern Ireland:** Hospital doctors with a department code of 'General Medicine' have now been included and figures from 2000 have been revised in 2011.

- **Northern Ireland:** 2013 data remain unavailable and continue to be an estimate of 2012. The data are unavailable due to the introduction of a new HR system in 2013.

Break in time series: 2015.

- **England:** The break in 2015 relates to a change in the collection methodology: GP data changed from an annual census collection to a quarterly collection from the Primary Care Workforce Tool (PCWT).

### ***General practitioners***

Deviation from the definition: Data include general practitioners and other generalists/non-specialists.

***Other generalist (non-specialist) medical practitioners***

- Data not available (GPs and Other Generalist Medical Practitioners cannot be separated).

***Specialist medical practitioners (and sub-categories)***

Source of data:

- **England:** The sources are:

\* Hospital and Community Health Services (HCHS) Doctors. 2000-2008: NHS Digital, Medical & Dental Workforce Census, <http://content.digital.nhs.uk/home>; 2009 onwards: NHS Hospital & Community Health Service (HCHS) workforce statistics. (Data as at 30 September each year). Data from 2009 are headcount.

\* Ophthalmic Medical Practitioners (OMPs). 2000-2019: Ophthalmic Workforce Data. (Data as at 31 December each year).

- **Scotland:** Information Services Division, Scottish Workforce Information Standard System. . From 2021, NHS Education for Scotland: Scottish Workforce Information Standard System.

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

- **Northern Ireland:** Department for Health, Social Services and Public Safety:

[http://www.dhsspsni.gov.uk/index/stats\\_research](http://www.dhsspsni.gov.uk/index/stats_research).

Reference period: Data as at 30<sup>th</sup> September, unless otherwise stated.

Coverage:

- Does not include private sector.

- **Northern Ireland:** Data exclude bank staff, research fellows, clinical assistants and hospital/medical practitioners. Data from 2000 exclude staff on career breaks. The UK equivalent of interns and residents, i.e. foundation doctors and registrars, will be included in this data. Data for 2013 is not available due to the phased implementation of a new human resources IT system.

- **Scotland:** Data excludes locum staff.

Deviation from the definition:

- **Scotland:** The sum of GPs and specialists is greater than the total number of physicians due to some staff holding more than one post. There is currently no conventional way of assigning such staff to one group only.

- **England:** Ophthalmic Medical Practitioners (OMPs) represent a headcount so each OMP is one individual, but the Hospital and Community Health Services (HCHS) portion of the Specialist Medical Practitioners for 2010-2012 are Rolecount - so some individuals may have more than one role (i.e in several hospital trusts). Rolecount data are slightly larger than headcount figures.

Estimation method:

- **Northern Ireland:** Department code has been used as an approximation of specialty.

- **Wales:** 2006 - With the exception of GP data, these data have been estimated by applying the proportional breakdown from 2005 and 2007 to the 2006 total.

- **Northern Ireland:** 2013 data remain unavailable and continue to be an estimate of 2012. The data are unavailable due to the introduction of a new HR system in 2013.

Break in time series: 2009.

- **England:** The break in 2009 relates to a change in the collection methodology: HCHS data changed from an annual census collection to monthly workforce statistics from the Electronic Staff Record (ESR).

- **England:** Up to 2008, data are based on rolecount; since 2009, they are based on headcount.

Note:

- **England:** As of 2009, based on the new method providing headcount of doctors, the number of 'Specialist medical practitioners' is lower than the sum of the sub-specialties. Some doctors with more than one specialty could be reported in several sub-groups, however they would be counted once only in 'Specialist medical practitioners'. This results in a mismatch between the total specialties and the sum of sub-specialties.

***Medical doctors not further defined***

Data not applicable.

**United States**

Source of data: **American Medical Association (AMA)**/Physician Characteristics and Distribution in the US, 2019 and earlier editions. AMA Physician Masterfile unpublished data for 2014 and later. Used with the permission of

AMA. <http://www.ama-assn.org/>.

Coverage:

- All physicians by self-designated specialty and activity, including members and non-members of the AMA and graduates of foreign medical schools who are in the United States and meet educational standards for recognition as physicians.
- Medical interns and residents are included in 'Other specialists not elsewhere classified' category.
- Included physicians must be currently engaged in patient care or other professional activity for a minimum of 20 hours per week.

Deviation from the definition: Data match OECD definition.

Calculation methods: Calculation methods match OECD definition.

Estimation method: Annual census.

Break in time series: Changes in definitions in 2003.

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

***Generalist medical practitioners, General practitioners***

Coverage: Based on AMA guidelines, general practitioners in U.S. include all general practitioners/family medicine doctors dedicated to patient care: office based physicians, residents/fellows, and physician staff. Estimates exclude other generalist medical practitioners (i.e. physicians who work in other professional activity such as administration, medical teaching, research, and other activities that are not related to patient care).

***General paediatricians***

Coverage: Includes doctors in general pediatrics and pediatric subspecialties. Estimates exclude Paediatric specialties (e.g. child psychiatry, child/paediatric surgery, child/paediatric gynaecology, paediatric cardiology, paediatric oncology, etc.)

***Obstetricians and gynaecologists***

Coverage: Includes doctors in obstetrics and gynecology and Ob-gyn subspecialties.

***Psychiatrists***

Coverage: Includes doctors in psychiatry and child psychiatry. Estimates exclude psychologists.

***Medical group of specialists***

Coverage: Includes doctors in allergy and immunology, cardiovascular disease, dermatology, gastroenterology, internal medicine, pediatric cardiology, and pulmonary disease.

Deviation from the definition: Data do not include doctors who specialise in radiology.

***Surgical group of specialists***

Coverage: Includes doctors in colon and rectal surgery, general surgery, neurological surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology.

Deviation from the definition: Data do not include doctors who specialise in anaesthesiology.

***Other specialists not elsewhere classified***

Coverage: For U.S., AMA identified other specialists not elsewhere classified as doctors in aerospace medicine, anatomic/clinical pathology, anesthesiology, diagnostic radiology, emergency medicine, forensic pathology, general preventive medicine, medical genetics, neurology, nuclear medicine, occupational medicine, other specialty, physical medicine and rehabilitation, public health and general preventive medicine, radiation oncology, radiology, transplant surgery, unspecified, and vascular medicine.

Deviation from the definition: Data include doctors who specialise in radiology and anaesthesiology.

***Medical doctors not further defined***

- Data not applicable.

## **NON-OECD ECONOMIES**

### **Brazil**

**Source:** Ministério da Saúde, Cadastro Nacional de Estabelecimentos de Saúde (CNES).

<http://tabnet.datasus.gov.br/cgi/defctohtm.exe?cnes/cnv/prid02br.def>.

**Reference period:** Data refer to December of each year.

**Coverage:** The entire national territory.

- Data are reported for general medical practitioners only, covering general practitioners (clínico geral) and family doctors (medico de família).

## Bulgaria

**Source of data:** **National Statistical Institute**, Exhaustive annual survey.

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

**Estimation method:** Data on medical specialists refer to the practiced speciality.

**Break in time series:** 2010 – break in time series.

2010-2017 data for practicing physicians are revised in accordance with the methodological amendments from 2018 in respect to:

- the territorial distribution of physicians and dentists, working in practices under a contract with the NHIF. Medical practitioners working in practices that serve more than one municipality or district are included in the total number but not distributed by municipalities or by district.

- physicians working in specialized practices under a contract with the NHIF are allocated to the specialty they are practiced. Those who practice more than one specialty are included in the total but not allocated by specialty.

### *Generalist medical practitioners*

**Coverage:** All GPs (head counts) and General medicine physicians who worked on a basic labour contract in health establishments. Residents are included (data **refer** to the **speciality** that has been **practised**). Practices of GPs who have signed contract with Regional Health Insurance Funds are covered. Paediatricians, who practice as GPs are included also.

### *General practitioners*

**Coverage:** All GPs (head counts) who worked on a basic labour contract in health establishments. Residents are included (data **refer** to the **speciality** that has been **practised**). Practices of GPs who have signed contract with Regional Health Insurance Funds are covered. Paediatricians, who practice as GPs are included also.

### *Other generalist (non-specialist) medical practitioners*

**Coverage:** All physicians practicing General medicine who worked on a basic labour contract in health establishments. Residents are included (data **refer** to the **speciality** that has been **practised**).

**Remark:** The number of Other generalist (non-specialist) medical practitioners is growing in 2016 due to the increase of these physicians in in-patient health establishments.

**Break in time series:** 2015. A predominant share of physicians practicing the specialty Accident and emergency medicine are working in Centres for emergency medical care. In accordance with changes in the legislation the center's activities, the types of teams, their main professional activities and composition is determined according to the medical standard "Emergency medicine" (issued in 2015). By 2014, some of these physicians have practiced the specialty "General medicine".

### *Specialist medical practitioners (ISCO-08 code: 2212)*

**Coverage:** All specialists medical practitioners (ISCO-08 code: 2212) (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data **refer** to the **speciality** that has been **practised**).

**Break in time series:**

2007: For the 2007 reference year, the survey methodology was changed in order to improve the data comparability (because of a new Ordinance on an acquisition of specialty in the healthcare system issued in the end of 2006 by the Ministry of Health and the Eurostat's questionnaire on non-expenditure healthcare data methodology requirements the list of medical specialties included in the exhaustive survey carried out by the BNSI is changed).

2010 – break in time series in respect to distribution of physicians by practiced speciality.

- Physicians working in specialized practices under a contract with the NHIF are allocated to the specialty they are practiced. Those who practice more than one specialty are included in the total but not allocated by specialty. That is why the number of Specialist medical practitioners are bigger than the sum of sub-categories.

### ***Paediatricians***

**Coverage:** All paediatricians (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

The number of Paediatricians who practice as GPs are excluded.

**Break in time series:** see *Specialist medical practitioners*.

### ***Obstetricians and gynaecologists***

**Coverage:** All obstetrician and gynaecologists (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

**Inclusion:** Obstetrics and gynaecology.

2019-2021 data - Obstetrics and gynaecology; Genetics.

**Break in time series:** For the 2007 and 2019 reference years, the survey methodology was changed in order to improve the data comparability (because of a new Ordinance on an acquisition of specialty in the healthcare system issued in the end of 2006 and 2018 by the Ministry of Health and the Eurostat's questionnaire on non-expenditure healthcare data methodology requirements the list of medical specialties included in the exhaustive survey carried out by the BNSI is changed). For 2010, see *Specialist medical practitioners*.

### ***Psychiatrists***

**Coverage:** All psychiatrists (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

**Inclusion:** Psychiatry, Paediatric psychiatry and Forensic psychiatry.

**Break in time series:** see above under *Specialist medical practitioners*.

### ***Medical group of specialists (Group of non-surgical specialists)***

**Coverage:** All medical specialists (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

**Inclusion:**

2002 – 2003 data: Internal medicine, Communicable diseases, Nutrition and dietetics, Hygiene of children and youth, Cardiology, Endocrinology and metabolic diseases, Gastroenterology, Pneumology, Rheumatology, Allergology, Neurology, Oto-rhino-laryngology, radiation treatment, Microbiology, Parasitology, Haematology, Transfusion haematology, Dermato-venereology, Pathological anatomy, Forensic medicine, Imaging diagnostic, Occupational medicine, Clinical laboratory, Epidemiology of the communicable diseases, Occupational diseases. All data are revised according to the requirements and all physicians with occupational medicine specialty are included.

2004 – 2006 data: Internal medicine, Communicable diseases, Nutrition and dietetics, Geriatric medicine, Hygiene of children and youth, Cardiology, Endocrinology and metabolic diseases, Gastroenterology, Pneumology, Rheumatology, Clinical allergology, Clinical immunology, Neurology, Oto-rhino-laryngology, radiation treatment, Microbiology, Virology, Medical parasitology, Clinical toxicology, Toxicology, Clinical haematology, Transfusion haematology, Dermato-venereology, General and clinical pathology, Pathophysiology, Forensic medicine, Imaging diagnostic, Occupational medicine, Clinical laboratory, Epidemiology of the communicable diseases, Occupational diseases.

All data are revised according to the requirements and all physicians with occupational medicine specialty are included.



2007 – 2018 data: Internal medicine, Communicable diseases, Nutrition and dietetics, Geriatric medicine, Cardiology, Endocrinology and metabolic diseases, Gastroenterology, Pneumology, Medical oncology, Rheumatology, Clinical allergology, Clinical immunology, Neurology, Oto-rhino-laryngology, radiation treatment, nuclear medicine, Microbiology, Virology, Medical parasitology, Clinical toxicology, Toxicology, Clinical haematology, Transfusion haematology, Dermato-venereology, General and clinical pathology, Pathophysiology, Forensic medicine, Imaging diagnostic, Occupational medicine, Clinical laboratory, Epidemiology of the communicable diseases.

All data are revised according to the requirements and all physicians with occupational medicine specialty are included.

2019: Since 2019 reference year the list of medical specialties included in the exhaustive survey carried out by the BNSI is changed due to amendments of national legislation (Amendment and supplement of Ordinance № 1/2006 of the Ministry of Health on an acquisition of specialty in the healthcare system).

2019-2021 data: Internal medicine, Neonatology, Communicable diseases, Nutrition and dietetics, Geriatric medicine, Physiotherapy and rehabilitative medicine, Cardiology, Paediatric cardiology, Angiology, Endocrinology and metabolic diseases, Paediatric endocrinology and metabolic diseases, Gastroenterology, Paediatric gastroenterology, Pneumology and phthisiatrics, Paediatric pneumology, Medical oncology, Rheumatology, Paediatric rheumatology, Clinical allergology, Clinical immunology, Neurology, Paediatric neurology, Oto-rhino-laryngology, Radiation treatment, Nuclear medicine, Radiobiology, Microbiology, Virology, Medical parasitology, Clinical toxicology, Toxicology, Clinical haematology, Paediatric clinical haematology and oncology, Transfusion haematology, Dermato-venereology, General and clinical pathology, Pathophysiology, Forensic medicine, Imaging diagnostic, Occupational medicine, Occupational diseases, Community medicine and health management, Health economics, Clinical laboratory, Epidemiology of the communicable diseases.

**Break in time series:** see above under *Specialist medical practitioners*. See under Coverage for 2004, 2007 and 2019 due to different inclusion criteria.

### ***Surgical group of specialists***

**Coverage:** All surgical specialists (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

#### ***Inclusion:***

2002 – 2003 data: Surgery, Neurosurgery, Ophthalmology, Orthopaedics and traumatology, Anaesthesiology, Urology, Nephrology.

2004 – 2006 data: Surgery, Paediatric surgery, Surgery of the chest, Neurosurgery, Plastic and rehabilitative surgery, Aesthetic surgery, Ophthalmology, Orthopaedics and traumatology, Cardiosurgery, Vascular surgery, Anaesthesiology & intensive care, Urology, Nephrology.

2007 – 2018 data: Surgery, Paediatric surgery, Surgery of the chest, visceral surgery, Neurosurgery, Plastic and rehabilitative surgery, Ophthalmology, Orthopaedics and traumatology, Cardiosurgery, Vascular surgery, Anaesthesiology & intensive care, Urology, Nephrology.

Physicians with Emergency medicine speciality are excluded from the total number of surgical group of specialties and are included in the group Other specialists not elsewhere classified. Physicians with Emergency medicine speciality in Bulgaria do not specialise in the use of surgical techniques to treat disorders and diseases.

Remark: All data are revised according to the requirements and all surgical specialists with maxillo-facial surgery specialty are excluded as well as all specialists with Emergency medicine are included.

Since 2019 reference year the list of medical specialties included in the exhaustive survey carried out by the BNSI is changed due to amendments of national legislation (Amendment and supplement of Ordinance № 1/2006 of the Ministry of Health on an acquisition of specialty in the healthcare system.).

2019 – 2021 data: Surgery, Paediatric surgery, Surgery of the chest, visceral surgery, Neurosurgery, Plastic and rehabilitative surgery, Ophthalmology, Orthopaedics and traumatology, Cardiosurgery, Vascular surgery, Anaesthesiology & intensive care, Urology, Nephrology, Paediatric nephrology and hemodialysis.

**Break in time series:** see above under *Specialist medical practitioners*. See under Coverage for 2004 and 2007.

2015 - A predominant share of physicians practicing the specialty Accident and emergency medicine are working in Centres for emergency medical care. In accordance with changes in the legislation the center's activities, the types of teams, their main professional activities and composition is determined according to the medical standard "Emergency medicine" (issued in 2015). By 2014, some of these physicians have practiced the specialty "General medicine".

### ***Other specialists not elsewhere classified***

**Coverage:** All other physicians (head counts) who worked on a basic labour contract in outpatient and inpatient establishments, as well as those who practice in other health establishments - centres for emergency medical care, centres for transfusion haematology, homes for medical and social care for children, Hygiene-epidemiological inspections and others. Residents are included (data refer to the speciality that has been practised).

**Inclusion:**

2002 – 2003 data: Physiotherapy and rehabilitative medicine, Sports medicine, Community medicine and health management, Other medical specialities. All data are revised according to the requirements and all physicians with occupational medicine and Emergency medicine specialties are excluded.

2004 – 2006 data: Physiotherapy and rehabilitative medicine, Sports medicine, Community medicine and health management, Health economics, Radiobiology, Other medical specialities. All data are revised according to the requirements and all physicians with occupational medicine and Emergency medicine specialty specialties are excluded.

2007 – 2018 data: Physiotherapy and rehabilitative medicine, Sports medicine, Community medicine and health management, Health economics, Radiobiology, Other medical specialities. All data are revised according to the requirements and all physicians with occupational medicine and Emergency medicine specialties are excluded. Since 2019 reference year the list of medical specialties included in the exhaustive survey carried out by the BNSI is changed due to amendments of national legislation (because of Amendment and supplement of Ordinance № 1/2006 of the Ministry of Health on an acquisition of specialty in the healthcare system).

2019 – 2021 data: Sports medicine, Clinical pharmacology and therapy, and Other specialities are included.

**Break in time series:** see above under *Specialist medical practitioners*. See under Coverage for 2004, 2007 and 2019.

### ***Medical doctors not further defined (ISCO-08 code: 2210)***

Not applicable.

## **Croatia**

**Source of data:** **Croatian Institute of Public Health**, National Register of Health Care Providers.

**Reference period:** Status on December 31<sup>st</sup>.

**Coverage:** Public and private health sectors included.

**Break in time series:** Private medical practitioners have been included since 1993. Maxillofacial surgeons were included up to 2008.

### ***Generalist medical practitioners (ISCO-08 code: 2211)***

**Deviation from the definition:** In 1996 and in 1997 the PHC included: General Medical Service, Infant and Young Child Health Service, School Health Service, Women's Health Service. Until 1995 it included physicians in Occupational Health Service and in Emergency Care.

From 1998 to 2008 the PHC included General Medical Service, Infant and Young Child Health Service and Women's Health Service.

**Break in time series:** 1996, 1998 and 2009.

### ***Specialist medical practitioners (ISCO-08 code: 2212)***

**Deviation from the definition:** As some physician's work as primary healthcare physicians they are not included up to 2008. Maxillofacial surgeons were included up to 2008.

**Break in time series:** Maxillofacial surgeons were included up to 2008.

### ***Paediatricians***

**Deviation from the definition:** As some paediatricians work as primary healthcare physicians they were not included in the general paediatricians number up to 2008.

**Break in time series:** 2009.

### ***Obstetricians and gynaecologists***

**Deviation from the definition:** Obstetricians and gynaecologists who provide primary healthcare were not included up to 2008.

Break in time series: 2009.

### ***Psychiatrists***

Deviation from the definition: Psychiatrists who provide primary healthcare are not included up to 2008.

Break in time series: 2009.

### ***Medical group of specialists***

Coverage: From 2009. included are: internal medicine, pneumophthisiology, infectology, neurology, dermatovenerology, otorhinolaryngology, transfusional medicine, radiology, radiotherapy and oncology, nuclear medicine, physical medicine and rehabilitation, medical microbiology with parasitology, anatom. pathology, clinical cytology, forensic medicine and occupational medicine.

Deviation from the definition: Up to 2008, group also included urology, orthopedics, ophthalmology and clinical pharmacology with toxicology.

Break in time series: 2009.

Forensic medicine and occupational medicine are included since 2009.

From 2009. urology, orthopedics, ophthalmology and clinical pharmacology with toxicology are excluded.

### ***Surgical group of specialists***

Coverage: From 2009. included are: general surgery, neurosurgery, child surgery, plastic surgery, anesthesiology, reanimatol. intensive care, emergency medicine, urology, orthopaedics, ophthalmology.

Deviation from the definition: Up to 2008, group not included urology, orthopedics, ophthalmology and emergency medicine.

Break in time series: 2009.

Maxillofacial surgery is not included since 2009. From 2009. urology, orthopedics, ophthalmology and emergency medicine are included.

### ***Other specialists not elsewhere classified***

Coverage: From 2009. included are: school medicine, social medicine, public health, epidemiology, marine medicine, sports medicine, medical ecology and clinical pharmacology with toxicology.

Break in time series: 2009.

Up to 2009. clinical pharmacology with toxicology was not included.

## **Indonesia**

**Source:** The World Health Organization (WHO), Global Health Observatory (GHO), Indicators “Generalist medical practitioners” and “Specialist medical practitioners.”

[https://apps.who.int/gho/data/node.main.HWFGRP\\_0020?lang=en](https://apps.who.int/gho/data/node.main.HWFGRP_0020?lang=en) (accessed 29 June 2023).

**Further information:** <https://www.who.int/data/gho>.

## **Peru**

**Source:** The World Health Organization (WHO), Global Health Observatory (GHO), Indicators “Generalist medical practitioners” and “Specialist medical practitioners.”

[https://apps.who.int/gho/data/node.main.HWFGRP\\_0020?lang=en](https://apps.who.int/gho/data/node.main.HWFGRP_0020?lang=en) (accessed 29 June 2023).

**Further information:** <https://www.who.int/data/gho>.

## **Romania**

### ***General practitioners***

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

Coverage:

- Up to 2009 the data refer to “active”. Starting with 2010 the data refer to “practitioners”.

- Up to 2008, the data cannot be broken down, family medical practitioners and general practitioners being recorded together.

- Data refer to family general practitioners and residents specialising in general practice.

- Since 2012, the number of general practitioners decreased because the number of residents in family medicine decreased.

Break in time series: 2010.

### ***Other generalist (non-specialist) medical practitioners***

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

Coverage:

- Up to 2009, the data refer to “active”. Starting with 2010, the data refer to “practitioners”.

- Up to 2008 the data can not be broken down, family medical practitioners and general practitioners being recorded together.

- Data refer to generalist practitioners.

Break in series: 2010.

### ***Specialist medical practitioners (ISCO-08 code: 2212)***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialists in its network.

- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

Reference period: data as of 31st December.

Coverage:

- From 1994-2004, the data cover only Ministry of Health network.

- From 2005-2010, the data cover public and private sector.

- Since 2010, data refer to practising physicians.

Deviation from the definition: Until 2019, data includes oral and maxillofacial surgeons.

Break in the series:

- 2005 because were included also data from private sector and other public network.

- 2006 because the physicians by specialties include the residents.

- Since 2010, data refer to practising physicians.

- 2019 - Beginning with 2019, oral and maxillofacial surgeons were excluded from the number of practicing physicians.

### ***Paediatricians***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialist in its network.

- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

Reference period: data as of 31st December.

Coverage:

- From 1994-2004, the data cover General paediatrics only from Ministry of Health network.

- Data from 2005 till 2009, refer to professionally active physicians from public and private sector. Because in 2007 and 2008 the total number of residents was included in Generalist medical physicians category, NIS used estimates, in order to allocate residents physicians on specialties.

- For the residents in training, for years 2007 and 2008, estimations were used to determine their distribution by category. The distribution was made by calculating the average percent of residents in each category, in the total number of residents for 2009 and 2010. These percentages were applied for years 2007 and 2008, using the total number of residents already known.

Break in the series:

- 2005 because were included also data from private sector and other public network

- 2006 because the physicians by specialties include the residents.

- Since 2010, data refer to practising physicians

### ***Obstetricians and gynaecologists***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialist in its network.

- **National Institute of Statistics** since 2005.

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

Coverage:

- Between 1994-2004, the data cover obstetricians and gynaecologists physicians only from the Ministry of Health network. Data from 2005 till 2009 refer to all professionally active physicians from public and private sector. Includes: Obstetric and Gynecology specialties. Because in 2007 and 2008 the total number of residents was included in Generalist medical physicians category, NIS used estimates, in order to allocate residents physicians on specialties
- For the residents in training, for years 2007 and 2008, estimations were used to determine their distribution by category. The distribution was made by calculating the average percent of residents in each category, in the total number of residents for 2009 and 2010. These percentages were applied for years 2007 and 2008, using the total number of residents already known.

Break in the series:

- 2005 because were included also data from private sector and other public network.
- 2006 because the physicians by specialties include the residents.
- Since 2010 data refer to practising physicians.

### ***Psychiatrists***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialist in its network.
- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

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

Coverage:

- From 1994-2004, the data cover Psychiatrists only from Ministry of Health network Data from 2005 till now refer to all professionally active physicians from public and private sector. Because in 2007 and 2008 the total number of residents was included in Generalist medical physicians category, NIS used estimates, in order to allocate residents physicians on specialties.
- For the residents in training, for years 2007 and 2008, estimations were used to determine their distribution by category. The distribution was made by calculating the average percent of residents in each category, in the total number of residents for 2009 and 2010. These percentages were applied for years 2007 and 2008, using the total number of residents already known.

Break in the series:

- 2005 because were included also data from private sector and other public network.
- 2006 because the physicians by specialties include the residents.
- Since 2010 data refer to practising physicians.

### ***Medical group of specialists***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialist in its network.
- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

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

Coverage:

- From 1994-2004, the data cover medical specialists only from Ministry of Health network. Data from 2005 till now refer to all professionally active physicians from public and private sector. The medical group of specialties include: internal medicine, neonatology, diabetology, nutrition and metabolic diseases, rehabilitation, physical medicine and balneology, cardiology, endocrinology, gastroenterology, pneumology (including respiratory medicine), oncology, rheumatology, neurology, otho-rhino-laryngology (from 2006), radiology, infectious diseases, haematology (from 2009), dermatology and pathology (from 2006), allergology and clinical immunology, medical expertise of work capacity, geriatrics and gerontology, labor medicine, pediatric neurology, radiotherapy, epidemiology, hygiene, lab medicine, forensic medicine and nuclear medicine.
- Data on microbiology-bacteriology are not available. In accordance with national laws, the microbiology-bacteriology is "over specialization" of laboratory medicine. Since 2006, laboratory medicine has been introduced in the NIS questionnaire.
- Because in 2007 and 2008 the total number of residents was included in Generalist medical physicians category, NIS used estimates, in order to allocate residents physicians on specialties.

- The differences between years can be explained in that NIS did not collect all medical specialties (NIS collected only the specialties requested by Eurostat). Because there was no unitary methodology for the inclusion/exclusion of some medical specialties in the new categories, we did not have data for all (see the last column “other specialties n.e.c.”). Gradually we expanded the number of specialties thus being able to better allocate them according to European methodology and the last column, “other specialties n.e.c.”, decreased considerably.

Deviation from the definition: specialists in occupational medicine are not included up to 2004.

Break in the series:

- 2005 because were included also data from private sector and other public network.
- 2006 because the physicians by specialties include the residents.
- Since 2010, data refer to practising physicians.

### ***Surgical group of specialists***

Source of data:

- **Ministry of Health** for the period 1994-2004, provided the medical specialist in its network.
- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

Reference period: data as of 31st December.

Coverage:

- From 1994-2004, the data cover surgical specialists physicians only from Ministry of Health network. Data from 2005 till 2009 refer to all professionally active physicians from public and private sector. Because in 2007 and 2008 the total number of residents was included in Generalist medical physicians category, NIS used estimates, in order to allocate residents physicians on specialties.
- For the residents in training, for years 2007 and 2008, estimations were used to determine their distribution by category. The distribution was made by calculating the average percent of residents in each category, in the total number of residents for 2009 and 2010. These percentages were applied for years 2007 and 2008, using the total number of residents already known.

Break in the series:

- 2005 because were included also data from private sector and other public network.
- 2006 because the physicians by specialties include the residents.
- Since 2010 data refer to practising physicians.

### ***Other specialists not elsewhere classified***

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 31<sup>st</sup> December.

Coverage:

- All professionally active physicians not elsewhere classified, from public and private sector. Residents medical training in surgical group of specialties are excluded.
- For the residents in training, for years 2007 and 2008, estimations were used to determine their distribution by category. The distribution was made by calculating the average percent of residents in each category, in the total number of residents for 2009 and 2010. These percentages were applied for years 2007 and 2008, using the total number of residents already known.

Deviation from the definition: Until 2019, data includes oral and maxillofacial surgeons.

Break in the series:

- Since 2010 data refer to practising physicians.
- 2019 - Beginning with 2019, oral and maxillofacial surgeons were excluded from the number of practicing physicians.

### ***Medical doctors not further defined (ISCO-08 code: 2210)***

Source of data:

- **Ministry of Health** for the period 1994, 2002, 2004, provided the medical specialist in its network.
- **National Institute of Statistics** since 2005, The activity of the sanitary and healthcare network – annual survey performed by NIS.

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

Coverage:

- All professionally active physicians not elsewhere classified, from public (before 1995) and private sector (since 1995), excluding resident medical training in surgical group of specialties. For 2002, 2004 and 2005 data include physicians from the network of other ministries and resident medical physicians in different medical specialties.
- Doctors from the network of other ministries (other than Ministry of Health) were included in "other categories not elsewhere classified" for the period 1986-2004.
- Until 2004, the Ministry of Health was the data source for medical specialties. In the column "Medical doctors not further defined" was registered number of physicians (which can not be assigned into a specialty), calculated as difference to the total.

Break in the series:

- 2005 because were included also data from private sector and other public network

## South Africa

**Source: The World Health Organization (WHO), Global Health Observatory (GHO),** Indicators “Generalist medical practitioners” and “Specialist medical practitioners.”

[https://apps.who.int/gho/data/node.main.HWFGRP\\_0020?lang=en](https://apps.who.int/gho/data/node.main.HWFGRP_0020?lang=en) (accessed 29 June 2023).

**Further information:** <https://www.who.int/data/gho>.

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