

# OECD Health Statistics 2025

## Definitions, Sources and Methods

### Professionally active nurses

**Professionally active nurses** include practising nurses and other nurses for whom their education is a prerequisite for the execution of the job.

#### Inclusion

- Professional nurses (see definition below)
- Associate professional nurses (see definition below)
- Nurses providing services directly to patients
- Nurses working in administration, management, research and in other posts excluding direct contact with patients

#### Exclusion

- Nurses who hold a post / job under which nursing education is not required
- Unemployed nurses and retired nurses
- Nurses working abroad

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

### Sources and Methods

#### Australia

##### Source of data:

- 2013 onwards: **Department of Health (DoH)**. NHWDS Nursing and Midwifery 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 2013**. Nursing and midwifery workforce 2012. National health workforce series no. 6. Cat. No. HWL 52. Canberra: AIHW. Also available at [www.aihw.gov.au](http://www.aihw.gov.au).
- 2011: **Australian Institute of Health and Welfare (AIHW) 2012**. Nursing and midwifery workforce 2011. National health workforce series no. 2. Cat No HWL 48. Canberra: AIHW. Also available at [www.aihw.gov.au](http://www.aihw.gov.au).
- 2001-2009: **Australian Institute of Health and Welfare (AIHW) 2011**. Nursing and Midwifery Labour Force 2009. Bulletin no. 90. Cat No AUS 139. Canberra: AIHW (and previous issues). Also available at <http://www.aihw.gov.au>.
- 1995-1999: Revised additional material associated with **AIHW 2003**. Nursing labour force 2002. AIHW cat. no. HWL 29. Canberra: AIHW (Health Labour Force Series no. 29). These data are available at <http://www.aihw.gov.au/publication-detail/?id=6442467553&tab=2>.

##### Coverage:

- From 2013, data exclude nurses with non-practising registration.
- From 2011, data regarding professionally active nurses include those nurses who reported working in nursing in the week before the survey. Hence, they are considered to be an 'employed nurse'.
- Data include those employed in nursing as clinical nurses, in clinical management and/or nurse/midwifery administration or management, as a lecturer, teacher or supervisor, researcher or other n.e.c. They exclude those on extended leave or who are looking for work in nursing.

Deviation from the definition:

- Data for nurses include midwives (in Australia, a large proportion of midwives hold dual registrations as both a nurse and a midwife).

Break in time series:

- From 2011, data are based on information 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 collected at the time of annual registration renewal. Registration data prior to 2011 was based on data from the now superseded state and territory nursing and midwifery boards and councils. For more information see Appendix A of *Nursing and midwifery workforce 2011* at <http://www.aihw.gov.au/publication-detail/?id=10737422167>. Comparison of 2011 and later data with 2009 and earlier data should be made with caution.

- From 2013 the NHWDS is held by the Department of Health and the data has minor differences from the previous AIHW holdings due to the method of imputation for survey non-response and enhanced geocoding methods.

## Austria

Source of data: **Austrian National Public Health Institute (GÖG)**, Health Professions Registry.

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

Coverage: Included are registered professionally active nurses who practise their profession (not necessarily with patients). Excluded are:

- Non-registered nurses
- Registered nurses, who are not yet employed after training
- As a nurse registered jobseeker
- As a nurse registered volunteer
- As a nurse registered pensioner

Deviation from the definition:

Estimation method:

Break in time series:

## Belgium

Source of data:

- **Service Public Fédéral Santé publique, sécurité de la chaîne alimentaire et environnement** (Federal Public Service (FPS) Health, Food Chain Safety and Environment), DG2 - Soins de santé primaire et gestion de crises (Directorate-General for Primary Health Care and Crisis Management). The Cellule "Planification des professionnels de santé" ("Planning of Health Professionals" unit) based the data on the cross-referencing of different administrative databases and registers from various sources (FPS Health, register; INAMI; Datawarehouse social protection).

- **PlanKad Nurses 2018**, Planning Cell for the Supply of Healthcare Professions, Directorate-General for Healthcare, FPS Public Health, Food Chain Safety and Environment, February 2021. (PlanKad Verpleegkundigen, Cel Planning van het Aanbod van de Gezondheidszorgberoepen, Dienst Gezondheidszorgberoepen en Beroepsuitoefening, Directoraat-generaal Gezondheidszorg, FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu).

[https://overlegorganen.gezondheid.belgie.be/sites/default/files/documents/plankad\\_vpk\\_2018\\_-\\_nl.pdf](https://overlegorganen.gezondheid.belgie.be/sites/default/files/documents/plankad_vpk_2018_-_nl.pdf).

Reference period:

Coverage: country

Deviation from the definition:

Estimation method: The 2010-2015 data have been estimated by using the average share for the period 2004-2009 of professionally active nurses among all nurses licensed to practice.

Break in time series: 2016. The data for 2016 come from new publication "Infirmiers sur le marché du travail, 2016".

## Canada

Source of data: Health Workforce Database, **Canadian Institute for Health Information**.

Coverage:

**All Nursing Data:**

- Data from 1980 to 2001 includes registered nurses (RNs) workforce only.
- Data from 2002 to 2019 are derived from head counts from administrative databases.

**RN, NP, LPN and RPN data (since 2002):**

Data include:

- Only nurses with an active-practising registration;
- Only nurses employed in nursing at the time of annual registration;
- Nurses employed in public and/or private sectors;
- Nurses employed in hospitals, clinics or other facilities (including self-employed);
- Nurses employed in direct patient care, administration, education, research, industry, or with post unknown;
- Include midwives registered as RNs working part-time, casual or employment status unknown (as midwives);
- Foreign-trained and/or foreign-born nurses living and working in Canada.

Data exclude:

- Secondary registrations. Refer to RN Data Dictionary and Processing Manual, under the Methodology tab, for information on the treatment of primary and secondary registrations. See <http://www.cihi.ca>.
- Canadian-born and/or Canadian-trained nurses living outside of Canada;
- Nurses not in the workforce at the time of annual registration;
- Nurses failing to state their employment status at the time of annual registration;
- Unregulated nurse aides and orderlies;
- Midwives not registered as RNs;
- Midwives registered as RNs working full-time (as midwives).

**Note:** To better ensure timeliness, CIHI collects data prior to the end of the 12-month registration period in each jurisdiction. Therefore, the population of reference for the nursing data is all regulated nurses who submit an active practising registration in a Canadian province or territory in the first 6 months of the registration year. The 12-month registration period varies among the provinces and territories, as each jurisdiction is responsible for setting the start and end dates of its own registration period.

- The 2014 to 2018 data for nurse practitioners and registered nurses in Manitoba should be used with caution, as it was reported voluntarily and may be understated.
- Starting in 2023, CIHI revised its methodology for imputing missing values in data for 2023 and subsequent years. This change may have an impact on the trends. As a result, comparisons with data for previous years should be made with caution.

**- Professional nurses:**

- 2019 to 2022 counts of professionally active nurse practitioners and professionally active registered nurses were unavailable for Manitoba. 2018 counts were used as estimates.
- 2021 and 2022 counts for professionally active registered nurses were not available for Prince Edward Island; the 2020 counts were used as estimates.
- 2021 count for professionally active nurse practitioners was not available for Prince Edward Island; the 2021 counts were used as estimates.
- 2021 counts for Northwest Territories/Nunavut professionally active nurse practitioners were used as estimates of the 2022 counts, as their 2022 data was not available.
- Data for professionally active registered psychiatric nurses for Yukon was not included as the data was not available.
- 2023 counts for Manitoba professionally active nurse practitioners and professionally active registered nurses were estimated by multiplying 2018 professionally active nurses data by the growth rate of nurses licensed to practice data compound annually, as their 2019-2023 data was not available.
- Please note that statistics reported by CIHI may differ from those reported by others, even though the source of the data (i.e., annual registration forms) is the same. Differences may be attributed to differences in the population of reference, the collection period and/or CIHI's data exclusion criteria and editing and processing methodologies. For more information, refer to Nursing in Canada, 2023— Methodology Notes on CIHI's website: Nursing in Canada, 2023 —

Methodology Notes (<https://www.cihi.ca/sites/default/files/document/nursing-in-canada-2023-meth-notes-en.pdf>).

**- Associate professional nurses:**

- 2019 count of professionally active licensed practical nurses was unavailable for New Brunswick. The 2018 count was used as an estimate of the 2019 count for that province.
- 2021 count for professionally active licensed practical nurses count was not available for Northwest Territories; the 2020 count was used as an estimate.
- 2021 and 2022 count for professionally active licensed practical nurses count was not available for Yukon; the 2016 count was used as an estimate.
- Data for professionally active licensed practical nurses for Nunavut was not included as the data was not available.
- 2023 counts for Yukon professionally active licensed practical nurses was estimated by multiplying 2016 professionally active nurses data by the growth rate of nurses licensed to practice data compound annually, as their 2017-2023 data was not available.
- Please note that statistics reported by CIHI may differ from those reported by others, even though the source of the data (i.e., annual registration forms) is the same. Differences may be attributed to differences in the population of reference, the collection period and/or CIHI's data exclusion criteria and editing and processing methodologies. For more information, refer to Nursing in Canada, 2023— Methodology Notes on CIHI's website: Nursing in Canada, 2023 — Methodology Notes (<https://www.cihi.ca/sites/default/files/document/nursing-in-canada-2023-meth-notes-en.pdf>).

## Chile

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

## Colombia

Source of data:

- From 2012 onwards: Calculations by the Direction of Human Talent Development in Health, **Ministry of Health, and Social Protection**.

- 1990-2011: (Ruiz, 2008), Health Human Resources in Colombia - 2008. Balance, skills, and foresight. Center of Studies for Development and Ministry of Social Protection (now the Ministry of Health and Social Protection) - 2009.

Coverage: National.

Estimation method:

- The estimation of stock considers the inputs (professionals graduates or with recognized diplomas in each period) and fewer withdrawals (adjustments for migration, retirement, and death).
- Estimation of the stock of practising nurses, including nurses who may not be exercising, without distinction of their field of exercise. Data include practising nurses who are unemployed or work in areas that do not have direct contact with patients (e.g., nurses working in administration and research).
- Data presented are estimates.
- The 2002-2020 series is recalculated to reflect changes in some data corresponding to one of the sources for the estimates of the records of the Colombian Ministry of National Education.
- The estimates considered the December 2020 cutoff of social security contributions through the Integrated Contribution Payment Plan (Planilla Integrada de Liquidación de Aportes -PILA).
- The figure for the year 2021 is provisional because the corresponding figures are to be revised based on updates from various sources the statistics from finished subjects/graduates issued by the Ministry of National Education from the National System of Higher Education Information-SNIES (<https://snies.mineducacion.gov.co/portal/ESTADISTICAS/Bases-consolidadas/>).

## Costa Rica

Data not available.

## Czechia

Data not available.

## Denmark

Source of data: **The Danish Health Data Authority**, Registered Health Professionals, the Danish Register for Evaluation of Marginalisation, The Danish Civil Registration System.

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

Coverage: 1992-2023

Deviation from the definition:

Estimation method:

Break in time series: 2022 change in the data collection

## Estonia

Data not available.

## Finland

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

Reference period: At the end of the calendar year.

Coverage: All licensed nurses employed at the end of the given year in health and welfare fields (NACE: 86-88), higher education (NACE P85.4) or fields linked to medical research (NACE: C21, M72.1) – and licensed nurses working in any other field under the occupational title of nurse.

Deviation from the definition:

Estimation method:

Break in time series

## 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, **Répertoire ADELI**. Data revision in 2023 (years 1998 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 metropolitan France and D.R.O.M. (overseas departments and regions).
- The data represent all active nurses, including those working in the administration, etc.
- Nursing assistants (“aide-soignantes”) are not included.
- Due to weaknesses in the administrative source, nurses aged 62 or above are here excluded. Nurses tend indeed not to declare when they cease their activity, which leads to an overestimation of professionally active nurses if not corrected.
- Data not available since 2022 (incomplete data source).

Deviation from the definition:

Estimation method:

Break in time series:

## Germany

Source of data: **Federal Statistical Office**, Health Labour Accounts January 2025; special calculation by the Federal Statistical Office, <http://www.destatis.de> or <http://www.gbe-bund.de>.

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

Coverage:

- Data include professional nurses with a 3-year education (nurses, paediatric nurses and nurses for the elderly).
- Data (head-counts rounded to the nearest thousand) contain the number of nurses actively practising in public or private hospitals, primary health care and other health facilities including self-employed. Also included are nurses working in administration, management, research and in other posts excluding direct contact with patients.
- Excluded are midwives, nurses working abroad, unemployed, and retired nurses and students who have not yet graduated.
- From 2000 onwards data from Health Labour Accounts have been completely revised. Therefore, comparable data before 2000 are not available.

Deviation from the definition:

Estimation method:

Break in time series:

## Greece

Data not available.

## Hungary

Data not available.

## Iceland

Source of data: **Directorate of Health, Association of Icelandic Nurses and The Icelandic Union of Practical Nurses.**

Reference period: 31st December.

Coverage:

- Professional nurses: Four years of university education leading to a B.Sc. degree.
- Associate/Licensed practical nurses: Three years of education in secondary school (non-university) and 16 weeks of practical training in health institutions.
- Figures refer to nurses who are members of The Association of Icelandic Nurses and associate practical nurses who are members of the Icelandic Union of Practical Nurses.
- Includes all nurses who are professionally active, according to labor union records. This may involve nurses in administrative or academic roles, as well as those in clinical settings.

Estimation method:

Break in time series:

## Ireland

Source of data:

- From 2021: **Nursing and Midwifery Board of Ireland - An Bord Altranais**

(<https://www.nmbi.ie/Home>).

- 2017-2019: **The Labour Force Survey (LFS), Central Statistics Office (CSO)**

(<https://www.cso.ie/en/methods/labourmarket/labourforcesurvey/>).

- 2012-2016: **CSO Quarterly National Household Survey (QNHS), CSO**

(<https://www.cso.ie/en/statistics/labourmarket/quarterlynationalhouseholdsurvey/>).

- Pre 2012: **FÁS/Skills and Labour Market Research Unit (SLMRU)** analysis of CSO Quarterly National Household Survey (QNHS) data

(<https://www.cso.ie/en/statistics/labourmarket/quarterlynationalhouseholdsurvey/>).

Reference period:

- From 2021: Figures refer to as at end of December.
- Pre-2020: Data is expressed as the annual average (i.e., average of four quarters).

Coverage:

- Data contains midwives who have dual registration and are allowed to be professionally active in both nursing and midwifery fields.

- From 2021, data include new registrants, and those renewing their registration who have self-declared as 'active'. The NMBI definition of 'active' is 'working in clinical care, management, administration, education, research or an industry where NMBI registration is required'.
- Pre-2020: Data includes those working in both the public and private sectors.

Deviation from the definition:

Estimation method:

For figures Pre-2021:

- The LFS is a sample survey.
- Households are asked to take part in the survey for five consecutive quarters and are then replaced by other households in the same block. Thus, one fifth of the households in the survey are replaced each quarter and the QNHS/LFS sample involves an overlap of 80% between consecutive quarters and 20% between the same quarters in consecutive years. It is important to note that there is no overlap in sample between the QNHS and the LFS.
- The survey results are weighted to agree with population estimates broken down by age, sex, and region (the regions have changed from Q1 2018) and are also calibrated to nationality control totals. The LFS results also contain a non-response adjustment to make the results from the achieved sample representative of the target sample and the population. The population estimates for April of each year are published in a separate release.
- Data may be subject to future revision.
- Data may be subject to sampling or other survey errors, which are greater in respect of smaller values or estimates of change.

Break in time series:

- 2007, 2009, 2012, 2017, 2021: Breaks in series occur due to change in data source.
- 2017: The introduction of the LFS in 2017 constituted a break in series for the labour force estimates published by the CSO. In an effort to mitigate the effect of the introduction of the LFS on the coherence of the historic data series, a back casting exercise was carried out to link the Quarterly National Household Survey (QNHS) and the LFS. However, because of changes to the questionnaire, the interview mode, the introduction of a new sample, data processing changes and other methodological enhancements there are changes in the levels of some series from Q3 2017 onwards. Consequently, the series before and after the introduction of the new survey may not be directly comparable and users should therefore note this when examining annual and quarterly changes.
- Until 2009, the QNHS was conducted on seasonal quarters (first quarter starting in December). Since 2009, the QNHS has been conducted on a calendar quarter basis. Also, since 2009 an updated EU Classification of industrial sectors (NACE rev 2) was used.
- Pre-2007, results for occupations coded to the new SOC2010 classification have now been recoded for historical quarters back to Q1 2007 to provide a longer and consistent time series for users. A new sample based on the 2011 Census of Population was selected for the LFS. For further information on the LFS, please see 'Background notes':

<http://www.cso.ie/en/releasesandpublications/er/qnhs/quarterlynationalhouseholdsurveyquarter22017/>

## Israel

Source of data:

- *2010 onwards*: From 2010 data are based on Nurses License Registry maintained by the Nursing Division and the Health Information Division in the **Ministry of Health** and Income tax files – employees and self-employed.

Coverage:

- *From 2010*: Coverage of income tax files is very high. Every year it is checked that all the major employers in the Health Services are included in the file, such as the Ministry of Health, the HMOs in Israel, and some of the hospitals. In Israel all midwives are first of all nurses - all the midwives must have certificate of nurses and as addition they must have passed special course of midwives. Professionally active midwives are not included in the numbers of professionally active nurses. Reference period: end of the year.

Methodology:

- *From 2010*: Linkage between Nurses license registry and income tax files is performed at the Central Bureau of Statistics. Nurses who have an income of at least 1,000 Israeli Shekel are considered employed

and included in the calculations. Professionally active nurses are employed nurses (employees and self-employed) in the Health Industry and in the other industries that are connected to the health education. Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Italy

### Source of data:

- Until 2020: **ISTAT, Labour Force Survey**. <http://www.istat.it/it/archivio/8263>.

- Since 2021: **ISTAT Integrated Data System on Health Personnel**.

Reference period: Until 2020: two-year moving averages (year t is the average of the years t, t-1, e.g. year 2016 is the average of 2015 and 2016 data). Since 2021: 31<sup>st</sup> December.

Coverage: Until 2020: Sample survey. Professionally active professional nurses. In the Italian regulatory system, the category “Associate professional nurses” does not exist. Since 2021: Professionally active professional nurses.

Deviation from the definition: None.

Estimation method: Until 2020: Estimation from the sample survey. Data are affected by the statistical error due to the sample design. Since 2021: Professionally active nurses.

- Since 2021: Data for the last year are provisional: except for data on professionals employed in the private sector, for other professionals (public sector employees, non-employees in the public and private sector) an estimate is made on the basis of the changes observed in years t-1 and t-2.

Break in time series: 2021: due to changes in data source. The Integrated Data System on Health Personnel provides more accurate data, exhaustive and compliant with the definition. The new data source based on the integration of individual data of professional registers with data from ISTAT’s Registers (on jobs, on economic units, on training) and the Population Census provides more accurate data on the number of professionally active nurses.

## Japan

Source of data: **Ministry of Health, Labour and Welfare**. Report on Public Health Administration and Services.

### Coverage:

- Data consist of public health nurses, nurses and assistant nurses working at hospitals, clinics, maternity homes, home-visit nursing care stations, institutions covered by the long-term care insurance, social welfare institutions, other establishments, municipalities or health centers, educational institutions or research facilities, and others.

## Korea

Data not available.

## Latvia

### Source of data:

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

- 2004 and earlier: **Medical Professional Education Centre**; Register of Health Care Persons.

Reference period: 31 December.

### Coverage:

Decrease in the number of nurses in year 2009 is due to restructuring of health care institutions.

Deviation from the definition:

Estimation method:

Break in time series: 2005, 2020, 2022.

- 2005: Change in data source.

- 2020: Starting from 2020, dental nurses are registered in the profession of dental assistant.

- 2022: Changes in legislation on education for nurses.

## 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 <https://www.hi.lt/sveikatos-statistikos-leidiniai/#--lietuvos-sveikatos-statistika>. Available on Official Statistics Portal of Statistics Lithuania <http://osp.stat.gov.lt/en>.

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

Coverage:

- The number of nurses at the end of the year includes all active nurses working in health care, public health, health administration, health education and research institutions (public or private), including health care institutions under other ministries than the Ministry of Health.

- The number of nurses excludes nurses working in social institutions, nurses working outside the country; nurses on the retired list and not practising or unemployed; nurses working outside health services, e.g., employed in industry, etc.

Deviation from the definition:

Estimation method:

Break in time series:

## Luxembourg

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

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

Coverage:

## Mexico

Data not available.

## Netherlands

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

Reference period: The last Friday before Christmas.

Coverage:

- Data refer to nurses who:

- are licensed to practice;
- live and work in the Netherlands; and
- are active in a health- or social care sector or a health-care related sector (licensing regulations passed in 2009 and effective in 2014 require that they have been practising – not necessarily fulltime – in the past five years).

- 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 health care 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 health care, education, cultural services and other social services, excluding social security), 8422, 8423.2, 843, 8532, 854, 9313, 9609.

Deviation from the definition:

Estimation method:

#### Break in time series:

As of 2014, midwives, nurses and physiotherapists are obliged to re-register. The requirement is that they have been practising in the past 5 years. This means that from 2014 onwards the figures are (in this case substantially) lower than before, and in line with the definition of practising nurses. We will stop the old estimate of professionally active from 2014 onwards and continue with the practising definition.

As of 2021 professionally active nurses by age and gender are reported.

### **New Zealand**

Source of data: **Nursing Council of New Zealand: Workforce Survey**, based on survey data from the New Zealand Nursing Council's workforce survey.

Reference period: Data relate to nurses issued with an Annual Practising Certificate until the 31<sup>st</sup> March of the year indicated in the series, i.e. 2010 data refer to all certificates from 1<sup>st</sup> April 2009 to 31<sup>st</sup> March 2010, etc.

#### Coverage:

- Head count data.

- Registered Nurses and Enrolled Nurses figures have been used to provide the breakdown into Professional Nurses and Associate Professional nurses.

- Nurse Practitioners are included in the Registered Nurse category (the term “nurse practitioner” refers to expert nurses who work within a specific area of practice incorporating advanced knowledge and skills and are registered in that scope of practice).

- Registered nurses include all nurses who are listed on the Nursing Register. Nurses can be included if they are NZ graduates or if they graduated overseas and meet the requirements of the Nursing Council of NZ.

- Three years of study are required to qualify as a registered nurse.

- Enrolled nurses in New Zealand are regulated and their programme is 18 months.

- Nursing Practice Code exclusions are: Non-nursing health related management or administration, nurses not in paid employment, nurses with other non-nursing paid employment and nurses working in another health profession.

- Nursing Practice Code inclusions are: Nursing administration and management, nursing education, nursing professional advice/policy development and nursing research.

- Overseas domiciled nurses are excluded.

#### Break in time series: 2011.

- Data up to and including 2010 are based on the number of practising certificates issued (a nurse can have more than one in a year). Data from 2011 onwards are sourced from the Nursing Council of New Zealand: data are still sourced from the workforce survey but are based on Nursing Council data definitions. The 2011 figures (2010/11 year ending 31 March 2011) and onwards are based on the number of professionally active nurses holding an annual practising certificate.

### **Norway**

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

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

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

Deviation from the definition:

Estimation method:

Break in time series: 2015.

- As from 2015, the register-based employment statistics will be based on a new data source for employees.

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

### **Poland**

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

- Until 2018: survey of medical personnel based on reports provided by health care units and doctor's practices.

- From 2019 onwards: calculations based on administrative sources, i.e. register of licensed physicians (Polish Chamber of Physicians), files provided by Social Insurance Institution and registers of health care establishments including practices of nurses and midwives.

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

Coverage: Practising nurses and nurses with universities, state or local self-government administration or the National Health Fund as the primary workplace.

Deviation from the definition:

Estimation method:

Break in time series:

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

## Portugal

Source of data: Statistics Portugal, Health personnel statistics

<http://www.ine.pt/xurl/ind/0012841>

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

Coverage:

- Becoming legally permitted to nursing is dependent on getting a professional license from the Council of Nurses.

- All nurses are registered by place of activity. Non-practising nurses are excluded.

- The number of nurses excludes the number of midwives (nurses specialised in Maternal Health and Obstetrics).

- Data include all active nurses licensed to practice. They include nurses working in administration, management, research and in other posts that exclude direct contact with patients.

Deviation from the definition:

- Nurses who hold a post / job under which nursing education is not required are not excluded.

Estimation method:

Break in time series:

## Slovak Republic

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

- The data come from "The Annual report on structure and number of health professionals and health care workers in the Slovak Republic"; therefore, only data on professionally active nurses are provided.

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

Coverage: Employees of denationalised establishments emerging during the process of privatisation have been included in the statistical databases since 1998.

## Slovenia

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

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

Coverage:

- Professionally active nurses include practising professionals working in the health-care sector and professionals working at HP4, 6.1, 6.3-6.9 and HP7 providers.

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

Deviation from the definition:

Estimation method:

Break in time series:

## Spain

Source of data: **National Statistics Institute (INE)**, based on the **Labour Force Survey**.

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

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

Coverage:

- A significant revision of the numbers of nurses in previous years has been made in 2010 due to a clarification of definitions. The Spanish Working Group for the adaptation of ISCO-08 to our own classifications (CNO-11) determined that Spanish health professionals fit as follows:

A) The category of 'associate professional nurses' (ISCO-08 code 3221) does not exist in Spain, so these series have been completely corrected.

B) The nursing aides working in Spain correspond entirely to the group 5 of the ISCO classification (ISCO-08 codes 5321, 5322) based on the tasks and functions they perform.

Therefore, based on these criteria, the series for practising nurses, professionally active nurses, associate professional nurses and caring personnel have been updated in 2010 for the period 1995-2008.

- Furthermore, the data set for professionally active physicians, nurses and pharmacists has been updated with better estimates in 2010. In this way, all the series follow the methodological definition. Before correction, some figures were in line with the definition of 'economically active professionals' whose values could include unemployed professionals.

- The number of professionally active nurses was obtained by calculating the number of nurses employed in the health sector as well as in remaining sectors of NACE rev.2 since 2009, and similarly with NACE Rev.1 and NACE Rev1.1 before 2009. Thus, the 'Professionally active' data correspond to nurses regardless of NACE sector where they are working.

- Data analysis over time should be carried out with caution. Data are obtained from a survey and fluctuations in the data can occur for a number of reasons, one of them being the sampling errors. These variations can lead to false assumptions about trends. We advise users of time series data to carefully explore the relevant issues before drawing any conclusions about the reasons for year-on-year changes.

- Up to 2010, the data include professional nurses (midwives included) exclusively. The data by occupation are classified according to the National Occupations Classification (CNO-94 Spain code 272), the Spanish equivalent of ISCO-88, code 2230.

- From 2011 to 2021 data are classified according to CNO-11 Spain, code 212. The CNO-11 code 212 is the Spanish equivalent of ISCO-08 code 222 (nursing and midwifery professionals).

- From 2022 onwards data are classified according to CNO-11 Spain code 2121 and 2122, excluding code 2123 which corresponds to midwives. The CNO-11 codes 2121 and 2122 is the Spanish equivalent of ISCO-08 code 2221 (nursing professionals).

- During the **first quarter of 2005** various changes have been introduced into the **Economically Active Population Survey**:

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

- In **2021** various changes have been introduced into the **Economically Active Population Survey**:

1. New variables have been included in accordance with Eurostat (Statistical Office of the European Communities) requirements, set forth in Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019.
2. The data referring to CNO-11 codes at 4-digit level are available.
3. The target population is extended to people aged 15 years and older.
4. Introduction of the CAWI (web interviews) for second and subsequent interviews.

- The figures of professionally active midwives are not available, and it is not possible to subtract them from the total number of professionally active nurses.

Deviation from the definition: Data include midwives until 2021.

Estimation method: In 2024, data series from 2020 onwards have been updated with Spanish population figures imported from Census 2021 and recalculated by using three-year moving averages in order to reduce the large year-to-year fluctuations in data derived from the LFS. In 2014, data series have been updated with Spanish population figures imported from Census 2011 and recalculated by using three-year

moving averages in order to reduce the large year-to-year fluctuations in data derived from the LFS. The number reported in 1996 is an average of 1995-1997; the number for 2012 is an average of 2011-2013.

Break in time series:

- Data include midwives until 2021 and exclude them from 2022.

## Sweden

Source of data: **National Board of Health and Welfare, LOVA-register.**

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

Coverage:

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

75.1 - Public authorities.

80.3 - Higher education establishments.

- Full coverage for practising nurses.

Deviation from the definition:

Estimation method:

Break in time series:

## Switzerland

Data not available.

## Türkiye

Source of data:

- From 2000 onwards: **General Directorate for Health Services, Ministry of Health.**

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

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

Coverage:

- Total number of nurses in the MoH, university and private sectors.

- Ministry of Health, university, private and other sectors (other public establishments, local administrations and since 2012 MoND-affiliated facilities) are included.

- Nurses who work abroad, who are retired/unemployed or who have not graduated from schools yet are not included.

- Nurses acting as managers are included.

- Midwives are excluded, even if some of them act as nurses in Türkiye.

Deviation from the definition:

Estimation method:

Break in time series: 2018.

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

## United Kingdom

Data not available.

## United States

Source of data: **U.S. Department of Labour. Bureau of Labour Statistics/Occupational Employment Statistics.** <http://www.bls.gov/oes>.

Coverage:

- Nationwide. The OES survey covers all full-time and part-time wage and salary workers in US non-farm industries. Surveys collect data for the payroll period, including the 12<sup>th</sup> day of May or November. The

survey does not cover the self-employed, owners, and partners in unincorporated firms, household workers, or unpaid family workers.

- Data include Registered Nurses (RN's) as well as Licensed Practical (LPN's) and Licensed Vocational Nurses (LVN's).

- **Registered Nurses** (29-111). Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Include advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse-midwives, and certified registered nurse anaesthetists. Advanced practice nursing is practiced by RNs who have specialised formal, post-basic education and who function in highly autonomous and specialised roles.

- **Licensed Practical and Licensed Vocational Nurses** (29-2061). Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

- Data from self-employed persons are not collected and are not included in the estimates.

Deviation from the definition:

- Data refer to nurses who are employed in establishments. They do not include self-employed or independently practising nurses.

Estimation method: National representative sample of the U.S. civilian non-institutionalised household population.

- The Occupational Employment Statistics (OES) program conducts a semi-annual mail survey designed to produce estimates of employment and wages for specific occupations. The OES program collects data on wage and salary workers in non-farm establishments in order to produce employment and wage estimates for about 800 occupations. The OES program produces these occupational estimates by geographic area and by industry. Estimates based on geographic areas are available at the national, state, metropolitan and nonmetropolitan area levels. The Bureau of Labour Statistics produces occupational employment and wage estimates for over 450 industry classifications at the national level. The industry classifications correspond to the sector 3, 4, and 5-digit North American Industry Classification System (NAICS) industrial groups.

Break in time series: 2020 breaks in time series. Due to features of the OEWS methodology, the May 2020 estimates do not fully reflect the impact of the COVID-19 pandemic. Because five of the six survey panels used to produce the estimates date from before the COVID-19 pandemic, only the most recent (May 2020) survey panel will reflect changes in occupational proportions related to the pandemic. In addition, because the OEWS employment estimates are benchmarked to the average of QCEW employment for November 2019 and May 2020, the estimates will reflect only part of the pandemic's impact on employment as of May 2020. Although the May 2020 QCEW data reflect the early employment effects of the COVID-19 pandemic, the November 2019 QCEW employment data precede the COVID-19 pandemic, and therefore do not reflect its impact. As a result of the pandemic, response rates for the November 2019 and May 2021 panels were lower in some areas. Lower response rates may negatively affect data availability and data quality.

- For more information about the impact of the COVID-19 pandemic on OEWS, see the

[https://www.bls.gov/oes/2020/may/oes\\_tec.htm](https://www.bls.gov/oes/2020/may/oes_tec.htm) and the BLS OEWS COVID-19 impact statement

(<https://www.bls.gov/covid19/effects-of-covid-19-pandemic-on-occupational-employment-and-wage-statistics.htm>) <https://www.bls.gov/covid19/effects-of-covid-19-pandemic-on-occupational-employment-and-wage-statistics.htm>.

## NON-OECD ECONOMIES

### Bulgaria

Data not available.

### Croatia

Data not available.

## Cyprus

### Source of data:

2000-2004: **Public medical institutions.**

From 2005: Nursing Services (Ministry of Health) as regards the Public Sector, **Inspectors of Private Medical Institutions** (Ministry of Health).

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

Coverage: The figures referring to years 2000-2005 have been estimated since no actual data are available for this period for the private sector. From 2006 onwards the reported numbers are actual.

Numbers referring to Public Sector are actual for all years and have been obtained from administrative sources provided by the public medical institutions, whereas the numbers referring to the private sector from 2006 onwards have been obtained from administrative sources of the Inspectors of Private Medical Institutions (Ministry of Health).

### Deviation from the definition:

Assumed that in the Private Sector, there are no nurses holding administrative positions. All nurses have been considered as practising nurses.

For 2005, the number of associate professional nurses refers only to the public sector, no data available for the private sector.

### Break in time series:

2005: due to a change in the data source.

2020: Up to 2019, midwives of the public sector were included. Also, health care personnel without qualifications of the private sector were also included in the associate professional nurses. From 2020 onwards, the midwives have been excluded from the number of practising nurses and the health care personnel without qualifications have been excluded from the associate professional nurses.

## Romania

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

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

Coverage: The data cover public and private sector.

Data from 2000 till 2009 include ancillary medical staff.

Since 2010, the data refer only to nurses.

The ancillary medical staff includes: medical assistants, pharmacy assistants, nurses, infant care personnel, sanitary technicians, laboratory assistants, registering clerks, masseur, autopsy assistant and statistician specialized in health statistics, medical physical trainer, ergo therapy trainer and other categories of medical staff with equivalent upper secondary level of education.

The data include also associated nurses from dentists units and pharmaceutical units (level of education is ISCED 3 or 4 and ISCO code 3221).

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

Number of nurses decreased in 2010 because in the period 2000-2009 data include ancillary medical staff (see definition above).

The number of professionally active nurses does not include midwives and physiotherapists.

### Deviation from the definition:

#### Estimation method:

#### Break in time series: 2010.

Since 2007, the first series of nurses ISCED 5 graduated. The trend of increasing of number of professional nurses remains because new generations of nurses are graduated from the university.