

# OECD Health Statistics 2023 Definitions, Sources and Methods

# **Computed Tomography scanners**

Number of Computed Tomography scanners (CT units).

A CT or CAT scanner is an x-ray machine which combines many x-ray images with the aid of a computer to generate cross-sectional views and, if needed, three-dimensional images of the internal organs and structures of the body.

# **Exclusion**

- Single Photon Emission Computed Tomography (SPECT).

#### **Sources and Methods**

#### Australia

# Source of data:

- From 2009 onwards: **Department of Health**. Unpublished data from Location Specific Practice Number register.
- 1995-2006: national estimates are based on selected **State and Territory Radiation Advisory Council Annual Reports**.
- **Australian Institute of Health** 1988. CT scanning in Australia: a report by the National Health Technology Advisory panel. Canberra: AIHW.

<u>Reference period</u>: Years reported are financial years 1<sup>st</sup> July to 31<sup>st</sup> June (e.g. data for 2012 are as at 30<sup>th</sup> June 2012). <u>Coverage</u>:

- Data from 2009 onwards represent the number of units approved for billing to Medicare only. Units may be removed from one location and re-registered in another location.

Note: During the first wave of COVID-19 in Australia at the beginning of 2020, diagnostic imaging services decreased significantly. Existing imaging practices have chosen to consolidate their existing practices and services, resulting in a halt in the expansion of diagnostic imaging practices in Australia. In addition, there have been significant delays in the global supply chain for the replacement and upgrade of machines. All of these issues have combined to result in the observed changes to the number of machines that are being reported for 2020 and 2021.

#### **Austria**

<u>Source of data</u>: **Austrian Federal Ministry of Social Affairs, Health, Care and Consumer Protection** (Gesundheit Österreich GmbH, Monitoring of Medical Technology Development). Reference period: 31<sup>st</sup> December.

#### Coverage:

- Included are all CT units in hospitals as defined by the Austrian Hospital Act (KAKuG) and classified as HP.1 according to the System of Health Accounts (OECD).
- The ambulatory sector is included (HP.3).

#### **Belgium**

# Source of data:

*Hospital (HP.1)*: **Federal Service of Public Health**, **DGGS** "Organisation of health provisions"; Ministry of the Flemish community and Ministry of the French community.

- Since 2016, data are based on the national registry for devices of medical image. Up to 2015, data were based on a hospital questionnaire.

Ambulatory care providers (HP.3): **Federal Agency for Nuclear control (FANC)**: licenses delivered for use of nuclear machinery. (CT scanners outside hospitals are recognized devices by the nuclear control authorities. But they are used essentially in research and education.).

Reference period: 31st December.

#### Coverage:

- *Hospital (HP.1)*: Until 2012, data correspond to the number of hospitals with this technology. From 2013 onwards, data correspond to the number of devices.
- *Ambulatory care providers (HP.3)*: FANC: number of devices approved for medical use. In principle, heavy medical machinery exams are not reimbursed in the ambulatory care sector.

<u>Deviation from the definition</u>: Data correspond to the number of hospitals with CT scanners (rather than the number of CT scanners) until 2012.

<u>Break in time series</u>: 2013. From year 2013, data correspond to the number of CT scanners and no more to the number of hospitals with CT scanners.

#### Canada

# Source of data:

- 1990-2001: Canadian Coordinating Office for Health Technology Assessment (CCOHTA), renamed the Canadian Agency for Drugs and Technology in Health (CADTH) in April 2006, *National Inventory of Selected Imaging Equipment*.
- 2003-2012: **Canadian Institute for Health Information**, *National Survey of Selected Medical Imaging Equipment*. See <a href="https://www.cihi.ca/en/types-of-care/specialized-services/medical-imaging">https://www.cihi.ca/en/types-of-care/specialized-services/medical-imaging</a>. Estimate for 2013.
- 2015, 2017 and 2019: Canadian Agency for Drugs and Technology in Health (CADTH), Canadian Medical Imaging Inventory. See <a href="mailto:cadmedical-imaging">cadth.cadmedical-imaging</a>.

# Coverage:

- 1990-2001: Surveys were not carried out in 1996, 1998 to 2000, and 2002. CT scanners located both in hospitals and in free-standing imaging facilities are included. The number of CT scanners in free-standing imaging facilities was compiled for years prior to 2003 based on data collected in the 2003 National Survey of Selected Medical Imaging Equipment conducted by the Canadian Institute for Health Information.
- 2003-2012: CIHI undertook a national survey of selected medical imaging equipment in 2003, similar to the survey conducted by CCOHTA in previous years. The survey was decommissioned in 2012. No survey was conducted in 2008. The CIHI survey tracked data on machines installed in Canadian hospitals and those in free-standing imaging facilities (sometimes called "non-hospital", "community-based", and/or "private" facilities). As at 1st January 2012, there were 485 CT scanners in hospitals and 25 CT scanners in free-standing imaging facilities.
- 2013: The 2012 MIT survey collected the number of CT units installed after 1st January 2012. This number was added to the 2012 number to get the total count of CT units installed as of 1st January 2013.
- 2015, 2017 and 2019: In 2015, CADTH has taken on the collection of data on medical imaging technologies in Canada and will continue to maintain the national inventory and publish a report of the findings every two years. The scanner counts were supplied to CADTH by provincial validators and include scanners in publicly funded sites only in 2015 while they also include some privately funded units in 2017 and 2019. For the years 2015 and 2017, no distinction between scanners in hospitals and free-standing imaging facilities is available from CADTH's reports *The Canadian Medical Imaging Inventory, 2015* and *The Canadian Medical Imaging Inventory, 2017* published on cadth.ca/medical-imaging.

# Chile

# Source of data: Ministry of Health, Investment Division.

- The data collection was conducted through an annual survey from the Ministry of Health to all country health services (by the office of Secretary for Care Networks, addressed to the Directors of Health and Experimental Centres, and Chief of the local Imaging Departments).
- It is not possible to collect data for years before 2011. The information is reliable and reflects the installed capacity up at 31st December.

<u>Methodology</u>: The methodology used was to ask providers of this type of equipment their installed base of equipment in operation, for both public and private area.

Coverage: Public and private sector.

- Hospitalisation (Hospitals and Clinics) and ambulatory care (Medical Offices and clinics of specialties). Some equipment may be used for both hospital and outpatient care (they are shared equipment).

Break in time series: in 2013, there was a change in the methodology of the survey.

#### Colombia

<u>Source of data</u>: Hospital Information System (SIHO), **Ministry of Health and Social Protection**. <u>Coverage</u>: Data correspond only to public healthcare providers (IPS). Private IPS are not included.

#### Costa Rica

#### Source of data:

- From 2022: Sistema Contable de Bienes Muebles de la **Caja Costarricense de Seguro Social** (Accounting System of Personal Property of the National Social Security Fund) and Annual Report from Private hospitals.
- *Till 2021*: Sistema Contable de Bienes Muebles de la **Caja Costarricense de Seguro Social** (Accounting System of Personal Property of the National Social Security Fund).

# Coverage:

- From 2022: All public hospitals and some private hospitals.
- Till 2021: Data correspond only to public hospitals belonging to the Social Insurance.

Break in time series: 2022 (inclusion of some private hospitals).

# **Czech Republic**

<u>Source of data</u>: **Institute of Health Information and Statistics of the Czech Republic**; Survey on medical apparatus in health establishments.

Reference period: 31st December.

#### Coverage:

- Until 1999, only establishments of health sector covered. From the year 2000, data cover all sectors.
- Data under HP.1 encompasses all bed care health establishments and HP.3 all other health establishments. Break in time series: 2000.

# **Denmark**

<u>Source of data</u>: **Danish Health Authority, Radiation Protection**. National database of radiation sources (for all years). Registration of equipment is mandatory.

Reference period: 31st of December.

<u>Coverage</u>: All CT scanners including those integrated in PET/CT scanners and SPECT/CT scanners are included. PET/CT scanners and SPECT/CT scanners are also included under PET scanners and gamma cameras, respectively.

#### **Estonia**

<u>Source of data</u>: **National Institute for Health Development**, Department of Health Statistics (since 2005). <u>Reference period</u>: 31<sup>st</sup> of December.

# Coverage:

- All providers. Since 2006 data have been included in the annual statistical report "Health Care Provider".
- Data on equipment were not collected routinely before 2005. Since 2006 data have been included in the annual reports of healthcare providers.
- Data are collected from hospitals and ambulatory care providers.

#### Deviation from the definition:

- The devices may also include combined devices like SPECT-CT, and it is possible that up to 2014 these devices are counted under both categories (i.e., under SPECT and CT units). The number of combined devices is not available. The first combined devices were purchased in 2007.
- Due to the changes in the HP coding in 2014 according to the SHA2011 some providers, previously classified under HP3, were classified under HP4. To avoid data loss since 2014 also HP4 providers are included under category "ambulatory care".

<u>Break in time series</u>: From 2015 the combined devices SPECT-CT are counted only under gamma cameras (SPECT) and PET-CT devices are counted under PET category only.

#### **Finland**

Source of data: Radiation and Nuclear Safety Authority Finland.

Coverage: All hospitals.

Note: Previously number of all kind of CT scanners has been reported in the column "CT scanners". That was justified, because most of the SPECT-CT and PET-CT scanners were used more than 50 % for CT only. Now the practice has changed so that most gamma cameras are equipped with CT and all these hybrid equipment are reported in the column "Gamma cameras" together with few gamma cameras without CT. Though, the total number of CTs has not changed dramatically, but we have changed the reporting to be in line with the given instructions.

#### **France**

<u>Source of data</u>: <u>Ministère des Solidarités et de la Santé - Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES)</u>, Sous-Direction de l'Observation de la Santé et de l'Assurance maladie, Bureau des Établissements de santé. Data are from **FINESS**.

Reference period: Equipment in service during the year (not necessarily during the whole year).

Coverage: Data refer to metropolitan France and D.O.M. (overseas departments).

Break in time series: 2015, 2019.

- During the year 2015, the source of data FINESS has been improved concerning the equipment: the source keeps now a better record of all the equipment actually in use. This improvement results in a higher number of equipment for 2015.
- Count of equipment in FINESS data changed in 2019: the repartition between ambulatory care equipment and hospital equipment has changed.

# **Germany**

# **Stationary sector:**

<u>Source of data</u>: **Federal Statistical Office**, Hospital statistics 2021 (basic data of hospitals and prevention or rehabilitation facilities); Statistisches Bundesamt 2022, *Fachserie 12*, *Reihe 6.1.1*, table 2.8.1 and internal tables; <a href="http://www.destatis.de">http://www.destatis.de</a> or <a href="http://www.gbe-bund.de">http://www.gbe-bund.de</a>.

Reference period: 31st December.

Coverage:

- Data on medical technology includes equipment installed in all types of hospitals (HP.1) in all sectors (public, not-for-profit and private).

# **Ambulatory sector:**

<u>Source of data</u>: **German Electrical and Electronic Manufacturers' Association** (ZVEI), Division "Medical Engineering"; special evaluation by the German Electrical and Electronic Manufacturers' Association. See <a href="http://www.zvei.org">http://www.zvei.org</a>.

Reference period: 31st December.

#### Coverage:

- Data comprise the number of Computed Tomography scanners (CT) installed in the ambulatory sector.
- From reporting year 2019 onwards, data on CTs installed in the ambulatory sector is no longer collected. <u>Estimation method</u>: As of reporting year 2019, the values for outpatient CT devices will be updated by using a trend calculation. The presentation is rounded to full tens.

#### Greece

Source of data: The Greek Atomic Energy Commission (for HP1 & HP3) and the Hospital Census of ELSTAT (HP1).

Reference period: 31<sup>st</sup> December. Coverage: Country Total.

# Hungary

#### Source of data:

- Until 1999, Hungarian National Institute for Hospital and Medical Engineering (ORKI).
- From 2000 to 2016, **Hungarian National Health Insurance Fund** (OEP), Statistical Yearbook. http://www.oep.hu.

- From 2017: **National Institute of Health Insurance Fund Management** (NEAK, in Hungarian), www.neak.gov.hu.

Reference period: 31st December.

Coverage:

- Until 1999, the Hungarian National Institute for Hospital and Medical Engineering (ORKI) registered all CT and MR equipment in public healthcare, regardless of whether care was provided to an outpatient or an inpatient.
- From 2000 the number contains only those CT units which are owned by healthcare institutions that have contracted outpatient CT examinations with the Hungarian National Health Insurance Fund (OEP in Hungarian) until 2016, and with the National Institute of Health Insurance Fund Management (NEAK in Hungarian) from 2017. Regardless, examinations can also be performed on inpatients on CT units, only they are not funded by the health insurer in itemized billing, but in the general weight of the inpatient DRG.

Deviation from the definition:

- From 2000 the number does not include CT units that only perform CT scans on inpatients. Also, the number does not include CT units that have not been contracted with the Hungarian National Health Insurance Fund (OEP in Hungarian) until 2016 and the National Institute of Health Insurance Fund Management (NEAK in Hungarian) from 2017, but operate exclusively in private financing.

#### Iceland

Source of data: Icelandic Radiation Safety Authority.

Reference period: 31st December.

#### Ireland

Source of data: Environmental Protection Agency (https://www.epa.ie/).

Reference period: Figures as at end of December.

Coverage:

- All figures are taken from the EPA's licensing database and were calculated at the end of each calendar year.
- Figures reflect the number of machines licensed by the EPA in Ireland. Under the licensing system used, the EPA assigns purposes to each item of equipment which indicates the clinical use of that item (e.g. mammography, fluoroscopy, CT, etc.). This designation is based upon data supplied from equipment users. Therefore, the figures reflect how they describe the equipment.
- The figure for CT scanning units does not include PET/CT, SPEC/CT scanners or CT Scanners used for radiotherapy simulation.

#### Israel

Source of data: The data are based on the Medical Institutions License Registry maintained by the Department of Medical Facilities and Equipment Licensing and the Health Information Division in the **Ministry of Health**. Reference period: End of the year.

<u>Coverage</u>: Includes all licensed CT units (CT for diagnosis, for research, for surgery and CT simulator).

<u>Note</u>: 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

<u>Source of data</u>: **Ministry of Health -** General Directorate of digitalisation, health information system and statistics - **Office of Statistics**. <u>www.salute.gov.it/statistiche</u>.

Reference period: 1st January.

<u>Coverage</u>: Available equipment both in hospital and territorial facilities is counted. Territory private facilities not accredited by the National Health Service are not covered. However, data on equipment in hospitals refer to both public and private hospitals, including private hospitals not accredited by the National Health Service.

<u>Deviation from the definition</u>: Territory private facilities not accredited by the National Health Service are not covered.

<u>Estimation method</u>: None <u>Break in time series</u>: None

#### **Japan**

<u>Source of data</u>: **Ministry of Health, Labour and Welfare**, Survey of Medical Institutions (several issues). <u>Coverage</u>:

- The survey items on medical technology are included in the large-scale survey conducted every three years.
- The data from 1981-1990 refer to computed tomography scanners for whole body and for head (head and neck) in all hospitals and medical clinics. The data from 1993-1999 refer to computed tomography scanners for whole body in hospitals and for whole body and head (head and neck) in medical clinics. The data from 2002 refer to computed tomography scanners in general and are not limited to those for whole body or for head (head and neck).
- The data in hospitals and medical clinics until 2002 are the number of "CT scanners".
- 2005 data refer only to "Spiral-CTs" in hospitals. In 2005, there were 4489 Spiral-CT scanners in hospitals in Japan (35.1 per million population).
- The "CT" in the 2008 and 2011 Survey of Medical Institutions is defined as "equipment that generates tomograms of structures within the body by a computer". 2008, 2011, and 2014 data include "Multi-slice CT" and "Other CT".
- Figures of 2011 exclude data of Ishinomaki medical area and Kesennuma medical area of Miyagi Prefecture, and Fukushima Prefecture.

#### Korea

<u>Source of data</u>: **Health Insurance Review & Assessment Service**, Healthcare resources by provider. <u>Coverage</u>: CT scanners for whole body and head.

#### Latvia

Source of data: Centre for Disease Prevention and Control; Statistical Report.

Reference period: 31 December.

Coverage:

- In 2021, data for 2003-2019 have been recalculated according to the definition.
- The number of CT in HP.3 institutions also include CT in HP.4.2 institutions.

#### Lithuania

Source of data: **Radiation Protection Centre**. Report "Health Statistics of Lithuania", available from <a href="http://www.hi.lt/health-statistic-of-lithuania.html">http://www.hi.lt/health-statistic-of-lithuania.html</a>. Available on Official Statistics Portal of Statistics Lithuania <a href="http://osp.stat.gov.lt/en">http://osp.stat.gov.lt/en</a>.

Reference period: 31st December.

<u>Coverage</u>: The number of licensed equipment. Since 2007 – the number of functioning equipment, excluding dental

Break in time series: 2007.

# Luxembourg

Source of data: Direction de la Santé, Division de la Radioprotection.

<u>Reference period</u>: Data as of December 31. <u>Coverage</u>: Includes all equipment in use.

#### **Mexico**

# Source of data:

- From 2001 to 2002: **Ministry of Health**. Bulletin of Health Information and Statistics. National Health System, Vol. 1, "Human and material health resources".
- From 2003 to 2021: data are taken from the National Health Information System (SINAIS). The data source for private providers is **National Institute of Statistics and Geography** (INEGI). National Survey on Medical units with Inpatient Hospital Services.

#### <u>Coverage</u>:

- Includes information from public institutions (MOH, IMSS-Bienestar, Services of the Federal District, IMSS,

ISSSTE, PEMEX, SEDENA, SEMAR, state health hospitals, university hospitals) and private providers.

- The observed increase probably is due to improvements in reporting and not to a real increase in equipment.
- From 2004 onwards, the equipment was identified by type of provider, using the same source, associating the unique ID included in the catalog of health establishments of health facilities (CLUES) by medical unit to confirm whether it is a hospital or ambulatory unit.

# **Netherlands**

# Source of data:

- 2006 onwards: Annual reports social account which the hospitals are required to deliver; the survey on imaging diagnostics is included in this report.
- Up to 2005: **Informatiesysteem Medische Stralingstoepassingen** (IMS). Based on annual survey "Jaarenquête Beeldvormende Diagnostiek" by RIVM, NVZ and Prismant.

#### **New Zealand**

<u>Source of data</u>: **Office of Radiation Safety, Ministry of Health**. Data is based on total number of CT scanners registered, including radiotherapy planning CT and dental clinics licensed to use cone beam CT as of 9 February 2021.

# Coverage:

- The figures provided include all healthcare facilities, both public and private providers.
- The database does not distinguish between hospital and ambulatory care settings. Break in time series: 2020-21.
- In 2020, ORS had an opportunity to review/update our register for medical equipment. As a result of that review, we identified more CTs including CBCTs that were recorded but weren't identified as CTs. Dental CBCT continued to be identified during 2021 on-site inspection activities resulting in significant increase in number reported.

# **Norway**

<u>Source of data</u>: **The Norwegian Radiation and Nuclear Safety Authority (DSA).** Undertakings that expect to acquire, lease, use or handle radiation sources that are subject to registration shall register their activities and each radiation source to DSA via DSA's radiation source registration system (<a href="https://ems.dsa.no/">https://ems.dsa.no/</a>). Equipment that is no longer in use is also reported through the same registration system.

Reference period: The reported data include registrations of equipment that have been registered and processed by DSA as of December 31 each year. Due to delays in the processing of registrations the actual number of equipment might be slightly higher or lower than reported on this date. Includes CT's used for radio therapy planning (4). Conventional x-ray equipment with option CBCT option are not included.

# Coverage:

- Data covers CT. Dental and veterinary use is not covered.
- Equipment is reported for HP.1 and HP.3 together (hospital and ambulatory sector). It is not possible to differentiate between HP.1 and HP.3 in the source data.
- The reported data is limited to equipment that is subject to authorization from DSA according to the Radiation Protection Regulations (see "Strålevernforskriften på engelsk" here: <a href="https://dsa.no/regelverk">https://dsa.no/regelverk</a>). DSA's radiation source registration system was updated in 2016, and data before this is therefore not easily accessible.

#### **Poland**

# Source of data:

In year 2013 and earlier:

# **Ministry of Health:**

- MZ-12 report on activity and workers in outpatient specialised healthcare.
- MZ-29 report on activity of general hospital.

#### **Ministry of Interior and Administration:**

- MSW-33 - report on nursing and residential care facilities. Data are collected on an annual basis. *From 2014 to 2018*:

#### **Ministry of Health:**

- MZ-11 report on activity and workers in outpatient healthcare.
- MZ-29 report on activity of general hospital.

#### **Ministry of Interior and Administration:**

- MSW-33 - report on nursing and residential care facilities. Data are collected on an annual basis.

# Since 2019:

# **Ministry of Health:**

- MZ-11 report on activity and workers in outpatient healthcare.
- MZ-29 report on activity of general hospital.

# **Ministry of Interior and Administration:**

- MSWiA-32 report on the outpatient activities of independent public healthcare units.
- MSWiA-43 report on activities of general hospital and specialised hospital.

Reference period: Data as at 31st December.

# Break in time series:

- 2014: change in data source as described above.
- 2019: change in data source as described above.

# **Portugal**

#### Source of data:

- For all sectors (inpatient and outpatient facilities) of public hospitals in the mainland: **Ministry of Health** Survey of High-tech Facilities.
- For inpatient facilities (official and private hospitals): **Hospital Survey**.

#### Coverage:

- Data include the total installed equipment.
- Since 2009, data are only available for CT scanners in hospitals.

# Slovak Republic

Source of data: National Health Information Center.

Reference period: 31st December.

Coverage: Medical technologies available regardless of frequency of use.

Type of healthcare facilities:

- HP.1 (hospital) Institutional care including out-patient units included in general hospital, specialised hospital and sanatorium.
- HP.3 (ambulatory sector) Out-patient healthcare included in general out-patient care unit, specialised out-patient care unit, emergency out-patient unit, facility providing day care, residential healthcare unit, healthcare centre, nursing care service, facility for common.

#### Break in time series:

- A revision of data within the register of medical technology was made in SR in 2004; therefore, data for CT scanners, radiation therapy units and lithotriptors were submitted only from 2003. Data for CT scanners, radiation therapy units and Lithotriptors up to the year 2003 are inconsistent, and their numbers were not submitted for the table "Medical technology available in HP1 + HP3 together".
- The increase in the availability of medical equipment in ambulatory setting in year 2014 is caused by purchase of new equipment and the expansion of the number of reports from statistical units which have been sent to National Health Information Center.

#### Slovenia

<u>Source of data</u>: **Slovenian Radiation Protection Administration**, Registry of radiation sources in medicine and veterinary medicine.

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

Coverage: Refers to all institutions in Slovenia.

#### **Spain**

# Source of data:

- 1984 and 1988: Pablo Lázaro y de Mercado. "Evaluación de Servicios Sanitarios: La Alta Tecnología en España". Fondo de Investigaciones Sanitarias de la Seguridad Social (F.I.S).

- From 1992 to 2009: Ministry of Health from National Catalogue of Hospitals (several issues).
- Since 2010: **Ministry of Health** from **Specialised Care Information System** (Sistema de Información de Atención Especializada SIAE).

http://www.sanidad.gob.es/estadEstudios/estadisticas/estHospiInternado/inforAnual/homeESCRI.htm. Reference period: 31st December.

#### Coverage:

- Until 2009, data from National Catalogue of Hospitals relate only to devices available in hospitals; they do not include equipment in other healthcare facilities.
- Since 2010, data are available for equipment in hospitals and ambulatory sector.

Break in time series: 1992 and 2010.

- Change in data source.
- Information about medical technology and diagnostic activity for centers HP.3 included since 2010.

#### Sweden

# Source of data:

- **Swedish Association of Local Authorities and Regions** (earlier Federation of Swedish County Councils). Statistics collected mainly from healthcare Regions and The Swedish Radiation Safety Authority.

#### Reference period:

- 2015 December.
- 2016 December.
- 2017 December.
- 2018 December.
- 2019 December.

#### Coverage:

- Most of the healthcare givers from local regions are included. Some non-radiation equipment owned by private healthcare providers may be excluded.
- Two regions have not reported data for 2022; for these two regions imputation have been done using their data from 2021.

#### **Switzerland**

# Source of data:

- HP.1+HP.3 together: **Federal Office of Public Health (FOPH)**, Bern, Division of Radiological Protection, full administrative data.
- HP.1: Federal Statistical Office (FSO), Neuchâtel, Hospitals statistics; yearly census.

Reference period: Data as of December 31.

#### Coverage:

- Since 2007, the data represent the number of apparatuses in use.

#### Estimation method:

- Time series are not complete. Some data are available at irregular dates. To estimate data with consistent time periods, interpolation is therefore used on punctual data from permanent administrative registers.
- New data since 2007. CT non-human health have been excluded since 2010. For HP.1: Hospital Statistics have been revised (data year 2010); new counting of all equipment.
- HP.3 is the result of the difference between total (Source: FOPH) and hospitals' resources (source: FSO).

#### **Türkiye**

# Source of data: General Directorate for Health Services, Ministry of Health.

<u>Reference period</u>: It is the number of CT scanners belonging to the institutions serving during the year. If the institution closed during the year, the data belongs to the date of closing. If not, the data dated 31 December is used. Coverage:

- Data cover the number of devices in the MoH, universities, private and other sector (other public establishments, local administrations and since 2012 MoND-affiliated facilities) as well as those used by outsourcing in Türkiye.

# **United Kingdom**

#### Source of data:

- **England:** NHS. Health Protection Agency, now Public Health England. 2019 onwards: NHS Improvement Annual Census.
- Scotland: Scottish Healthcare Supplies (for 2004 and 2005 data).
- Wales: Welsh Health Estates.
- Northern Ireland: Social Services and Public Safety (for 2004 and 2005 data).

#### Coverage:

- 2019 onwards: England only at HP.1 hospitals.
- Does not include private sector.
- Wales Excludes CT Scanners used for radiation therapy planning purposes (CT Sims) and Hybrid imaging systems eg Ct-Gamma Cameras.
- No data has been available from sources in Northern Ireland, Scotland and Wales in recent years. Estimation method:
- 2000 to 2001 and 2008: Only available data was for England. UK figure estimated based on a pro-rata increase using UK population data.
- 2002 to 2003: Only Great Britain data available. UK estimate based on a pro-rata increase using UK population data.
- 2006: UK figure estimated as Scottish data unavailable. 2005 Scottish data used, following agreement with the Health Protection Agency.
- For 2010 onwards only available data was for England and Wales, and UK level figure was submitted based on a pro-rata increase using UK population data.
- No England and therefore UK data from 2015 to 2018.
- 2019 onwards: England only census is adjusted (grossed up) to represent a UK value based upon a pro-rate population using the official Mid Year Population Estimates of UK Nations and the UK as a whole. Break in time series:
- 2010. Pre-2010 is England only. 2010 onwards is based on a UK estimate.
- 2019 onwards data represent a break in any previous time series. From 2019, data is available for hospitals (HP.1) only.

#### **United States**

# Source of data:

- **IMV Medical Information Division**: *Benchmark Reports* for selected years: 2021, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2008, 2007, 2006, and 2004. <a href="http://www.imvinfo.com">http://www.imvinfo.com</a>.
- Nationwide. IMV's CT reports utilize a survey methodology to query hospital and non-hospital sites in the United States performing CT procedures using fixed CT scanners. The survey results are projected to the universe of identified CT sites. Candidate CT sites are identified using proprietary IMV databases, supplemented by the American Hospital Association's AHA guide (The AHA Guide to the Health Care Field), registrations lists of CT installations from the Food and Drug Administration, and site lists identified through secondary research.
- The U.S. ambulatory sector data provides the estimated number of units in non-hospitals sites which include: 1) imaging centres owned/co-owned by a hospital or healthcare systems, and 2) "independent imaging centres" which includes those owned or co-owned by radiology practices, multispecialty, physician practices, cardiology offices, or companies that own multiple imaging centres.
- US territories are not included.
- U.S. provides the numbers of units not the number of sites. A single site may own two or more units.
- A source of error in the sample is the possible omission of sites from the universe of all sites, which have thus far still escaped identification, particularly non-hospital sites.

<u>Estimation method</u>: Further information on the estimation method for the selected IMV Benchmark Reports can be found at http://www.imvinfo.com.

<u>Deviation from the definition</u>: Data match the OECD definition.

Break in time series: No breaks in time series.

#### **NON-OECD ECONOMIES**

#### Brazil

Source of data: National Registry of Health Establishments (Cadastro Nacional de Estabelecimentos de Saúde (CNES).

# **Coverage:**

- Total number of computed tomography scanners per year: All existing equipment of type 11 Computed Tomography was accounted for.
- The situation at of December of each year were considered.

#### **Bulgaria**

Source of data: National Centre for Public Health and Analyses at the Ministry of Health.

Reference period: 31st of December.

Coverage: The study is with annual periodicity. All types of health establishments except hospices are included.

#### Croatia

Source of data: Croatian Institute of Public Health, Medical Equipment Database.

Reference period: Status on December 31st.

<u>Coverage:</u> Data includes CT units in all public and private hospitals and other healthcare providers in Croatia, except prison hospital.

#### Romania

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

Reference period: data as of 31st December.

<u>Coverage</u>: For the period 2005-2006, the data covers all hospitals from public sector, starting with 2007 data refers to hospitals and ambulatory care units of public and private sector. Data collection for 2005 and 2006 does not cover ambulatory care sector (HP3).

<u>Deviation from the definition</u>: The number of Single Photon Emission Computed Tomography (SPECT) included in the number of Computed Tomography scanners couldn't be identified.

#### **Russian Federation**

**Source:** Federal State Statistics Service (ROSSTAT), Forms of Federal Statistical Survey, Form No 30 "Information on the network and activities of healthcare institutions".

**Break in time series in 2014:** Since 2014, the Russian Federation includes Krime Federal Okrug (Crimea). **Note:** This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

© OECD, OECD Health Statistics 2023. July 2023. http://www.oecd.org/health/health-data.htm