Health care resources (hlth_res)

Reference Metadata in Euro SDMX Metadata Structure (ESMS)

Compiling agency: Eurostat, the statistical office of the European Union.

Eurostat metadata

Reference metadata

For any question on data and metadata, please contact: EUROPEAN STATISTICAL DATA SUPPORT

Download

1. Contact

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1.1. Contact organisation	Eurostat, the statistical office of the European Union.
1.2. Contact organisation unit	F5: Education, health and social protection
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2. Metadata update

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2.1. Metadata last certified	30/09/2021
2.2. Metadata last posted	30/09/2021
2.3. Metadata last update	30/09/2021

3. Statistical presentation

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3.1. Data description

Non-expenditure health care data provide information on institutions providing health care in countries, on resources used and on output produced in the framework of health care provision.

Data on health care form a major element of public health information as they describe the capacities available for different types of health care provision as well as potential 'bottlenecks' observed. The quantity and quality of health care services provided and the work sharing established between the different institutions are a subject of ongoing debate in all countries. Sustainability - continuously providing the necessary monetary and personal resources needed - and meeting the challenges of ageing societies are the primary perspectives used when analysing and using the data.

The resource-related data refer to both human and technical resources, i.e. they relate to:

- *Health care staff*: 'manpower' active in the health care sector (doctors, dentists, nurses, etc.);
- *Heath workforce migration*: migration movements of doctors and nurses;
- *Health care facilities*: technical capacity dimensions (hospital beds, beds in nursing and residential care facilities, etc.).

Annual national and regional data are provided in absolute numbers and in population-standardised rates (per 100 000 inhabitants).

Wherever applicable, the definitions and classifications of the System of Health Accounts (SHA) are followed, e.g. International Classification for Health Accounts - Providers of health care (ICHA-HP). For hospital discharges, the International Shortlist for Hospital Morbidity Tabulation (ISHMT) is used.

Health care data on resources are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

3.2. Classification system

Health care staff

In the context of comparing health care services across Member States, Eurostat gives preference to the concept 'practising', as it best describes the availability of health care resources. Common definitions for the different categories of health care professionals (doctors, dentists, etc.) were agreed with OECD and WHO. The detailed definitions are available in CIRCABC.

Health care facilities

Common definitions for available beds in hospitals (HP.1) and in nursing and residential care facilities (HP.2) were agreed with OECD and WHO and are available in CIRCABC. The contents of the categories hospitals (HP.1) and nursing and residential care facilities (HP.2) should follow the ICHA-HP classification of providers of health care of the System of Health Accounts (SHA).

3.3. Coverage - sector

Public Health.

3.4. Statistical concepts and definitions

Health care resources' statistics describe the process of providing health care services in countries by referring to the participating institutions. Institution-related data are mostly related to and derived from available resources and so focus primarily on a *capacity dimension*.

The respective data are, due to their heterogeneity, collected, stored and disseminated via different tables. They are based on different, mainly administrative sources. This may lead to differences in the coverage of time series and/or in the geographical coverage; data validity, reliability and comparability may vary. Furthermore, it may not always be possible to have the health care system, implicitly underpinning the data collection, being consistently defined across data sources.

Non-expenditure health care resources data are grouped as follows:

- *Health care staff*: data refer to human resources available for providing health care services in the country, irrespective of the sector of employment (i.e. whether they are independent, employed by a hospital or any other health care provider). 'Manpower' categories focus on health care professionals (physicians, dentists, nursing and caring professionals, pharmacists, physiotherapists); socio-demographic elements (age, sex) are partly included.

Three different concepts are used to present the number of health care professionals:

- 'practising', i.e. health care professionals providing services directly to patients;
- 'professionally active', i.e. 'practising' health care professionals plus health care professionals for whom their medical education is a prerequisite for the execution of the job;
- 'licensed to practice', i.e. health care professionals who are registered and entitled to practice as health care professionals.

There is also a table on health workforce migration, which presents data on the number and annual inflow of foreign trained doctors and nurses.

- *Health care facilities*: data refer to available beds in hospitals (HP.1) and subcategories (such as curative care beds, rehabilitative care beds, etc.) and available beds in nursing and residential care facilities (HP.2) as well as medical technology and technical resources in hospitals (HP.1).

Total hospital beds (HP.1) are all hospital beds which are regularly maintained and staffed and immediately available for the care of admitted patients. Total hospital beds are broken down as follows:

- Curative care (acute care) beds;
- Rehabilitative care beds;
- Long-term care beds (excluding psychiatric care beds);
- Other hospital beds.

Beds in nursing and residential care facilities (HP.2) are available beds for people requiring ongoing health and nursing care due to chronic impairments and a reduced degree of independence in activities of daily living (ADL) in establishments primarily engaged in providing residential care combined with either nursing, supervision or other types of care as required by the residents. The care provided can be a mix of health and social services.

The definition of health care facilities follows the International Classification for Health Accounts - Providers of health care (ICHA-HP) of the System of Health Accounts (SHA).

Next to absolute numbers, density rates are provided for health care statistics.

Density rates are used to describe the *availability of resources* or the *frequency of services rendered*, expressed in per 100 000 inhabitants. They are calculated by dividing the absolute number of health care resources available or services rendered in a given period by the respective population in the same period and then multiplied by 100 000.

The availability of resources may also be expressed by an inverse figure - e.g. the number of *inhabitants per physician* - which is selectively used here.

3.5. Statistical unit

Administrative data sources refer to registered health professionals or health care facility categories. The underlying totality of institutions, for which data collections are available, may differ. In some countries, data may not be available for a subgroup of institutions (e.g. private hospitals).

3.6. Statistical population

Depending on the data set, the target populations are (1) all health care staff or (2) all available beds or equipment in hospitals or in nursing and residential care facilities.

3.7. Reference area

EU Member States, Iceland, Liechtenstein, Norway, Switzerland, Montenegro, the former Yugoslav Republic of Macedonia, Albania, Serbia and Turkey.

3.8. Coverage - Time

For several data sets, time series for the EU Member States, Iceland, Liechtenstein, Norway, Switzerland, Montenegro, the former Yugoslav Republic of Macedonia, Albania, Serbia and Turkey are available from 1960 onwards. However, the availability of the data varies across countries and data sets.

3.9. Base period

Not applicable.

4. Unit of measure

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The data are published in absolute numbers and rate per 100,000 inhabitants. The data may also be expressed by an inverse figure - e.g. the number of *inhabitants per* physician.

5. Reference Period

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Calendar year; depending on the data set this can be annual average data or data as reported by 31st December.

6. Institutional Mandate

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6.1. Institutional Mandate - legal acts and other agreements

Countries submit data to Eurostat on the basis of a gentlemen's agreement established in the framework of the Eurostat Working Group on "Public Health Statistics".

A Regulation on Community statistics on public health and health and safety at work (EC) No 1338/2008 was signed by the European Parliament and the Council on 16 December 2008. This Regulation is the framework of the data collection on the domain. Within the context of this framework Regulation, a specific Implementing Measure was developed - within the ESS - on Causes of Death statistics and, according to forthcoming agreement with the member States, Implementing Measures for other domains will follow.

6.2. Institutional Mandate - data sharing

Data on health care resources (staff and facilities) are collected throw the Joint Questionnaire on Non-Monetary Health Care Statistics, which is carried by Eurostat, OECD and WHO-Europe. Regional data and data on technical resources in hospital is collected by Eurostat only.

Definitions and data specifications are available in CIRCABC.

7. Confidentiality

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7.1. Confidentiality - policy

Regulation (EC) No 223/2009 on European statistics (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

7.2. Confidentiality - data treatment

Not applicable.

8. Release policy

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8.1. Release calendar

Not applicable.

8.2. Release calendar access

Not applicable.

8.3. Release policy - user access

In line with the Community legal framework and the European Statistics Code of Practice Eurostat disseminates European statistics on Eurostat's website (see item 10 - 'Accessibility and clarity') respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably. The detailed arrangements are governed by the Eurostat protocol on impartial access to Eurostat data for users.

9. Frequency of dissemination

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Annual.

10. Accessibility and clarity

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10.1. Dissemination format - News release

News releases on-line.

10.2. Dissemination format - Publications

Statistics Explained: Health

Health in the European Union – facts and figures

Health Statistics Illustrated

For more information on publications, see also the Health dedicated section on Eurostat website.

10.3. Dissemination format - online database

Please consult free data on-line or refer to contact details.

10.4. Dissemination format - microdata access

Not applicable.

10.5. Dissemination format - other

Eurostat database: Population and social conditions>Health>Health care>Health care resources
Europe in figures - Eurostat yearbook
Eurostat regional yearbook

10.6. Documentation on methodology

For the comprehensive metadata of each variable/country, see the *Detailed footnotes* at the bottom of the page.

10.7. Quality management - documentation

Not available.

11. Quality management

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11.1. Quality assurance

Not available.

11.2. Quality management - assessment

The quality of the data is subject to the way in which health care provision is organised in countries, and which information is available to and collected by the respective institutions.
The quality, comparability and coverage are discussed at biannual technical meetings of the Technical Group Care and at the annual Eurostat's Working Group "Public Health Statistics".
It is also subjected to annual discussions with OECD and WHO at annual trilateral meetings concerning the Joint Questionnaire on Health Care Non-Monetary Statistics, which is the basis for the data collection.

12. Relevance

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12.1. Relevance - User Needs

The main users of the data are DG Health and Food Safety's (SANTE) and DG Employment, Social Affairs & Inclusion (EMPL) in view of health policy papers and health strategies. The data also contribute to monitor the Europe 2020 strategy on Health as requested by the Council in December 2013 in the conclusions on the "Reflection process on modern, responsive and sustainable health systems" and to the Joint Assessment Framework for Health (JAF) which was agreed by the Social Protection Committee in November 2013.

12.2. Relevance - User Satisfaction

Not available.

12.3. Completeness

Administrative data sources refer to registered health human resources and health care facilties. The underlying totality of institutions for which data collections are available may differ. In some countries, data may not be available for a subgroup of institutions (e.g. private hospitals) or professionals (e.g. practising nurses).

13. Accuracy

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13.1. Accuracy - overall

Not available.

13.2. Sampling error

Not applicable.

13.3. Non-sampling error

Not applicable.

14. Timeliness and punctuality

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14.1. Timeliness

Eurostat asks for the submission of final data for the year N at N+15 months. A number of countries still face difficulties with this timetable and deliver data at their earliest convenience.

14.2. Punctuality

Not available.

15. Coherence and comparability

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15.1. Comparability - geographical

The comparability of the data across different countries is limited by the fact that the quality of the country data is subject to the way in which health care provision is organised in countries, and which information is available to and collected by the respective institutions.

Some countries are unable to cover all providers of care (the inclusion of private providers seems particularly difficult) or are only able to provide data for selective regions.

Sometimes regional data cannot be made available as the available breakdown does not coincide with the NUTS classification.

Ongoing work to increase quality, comparability and coverage is reported to Eurostat's Working Group "Public Health Statistics".

15.2. Comparability - over time

The comparability of the data over time is checked before dissemination.

Some countries may have a change in their data collection and so a break in series. These break in series are flagged and some information are given in the annexes of the metadata.

15.3. Coherence - cross domain

Health care data on resources and patients are also available in the database "Regional Statistics".

15.4. Coherence - internal

Not available.

16. Cost and Burden

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Not available.

17. Data revision

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17.1. Data revision - policy

None.

17.2. Data revision - practice

None.

18. Statistical processing

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18.1. Source data

Health care non-expenditure data are mainly derived from administrative sources, and these sources may vary by country and by variable. For health care staff, countries may use a central register for medical professionals, business registers or other forms of data collection (including sample surveys).

Please note that the data sources used may not have been created initially for statistical purposes, and that the initial purpose of a data source may differ across countries. Both facts may influence the validity and comparability of results.

18.2. Frequency of data collection

Annual.

18.3. Data collection

Administrative data from the national statistics authorities. The data are collected annually.

18.4. Data validation

Consistency checks: comparing the statistics with previous years, investigating inconsistencies in the statistics, performing macro data editing, outlier detection. Comparison of validation results with OECD and WHO in view of data collected by the Joint Questionnaire on Non-Monetary Health Care Statistics.

18.5. Data compilation

The absolute numbers for EU aggregates are the sum of the country numbers. When there is no available data for a country, the calculation of the EU aggregate takes into account the available data in the 5 previous years for the countries for which data is missing. For the density rates these EU totals are divided by the corresponding total EU population.

18.6. Adjustment

Data as reported by countries. No adjustments are made by Eurostat.

19. Comment

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See Footnotes in the Annex at the bottom of the page for:

Health care staff:
- Physicians;
- Dentists;
- Nursing and caring professionals;
- Pharmacists;
- Physiotherapists;
- Graduates;
- Health personnel employed in hospital;
- Health workforce migration.

Health care facilities:
- Hospital beds by type of care;
- Hospital beds by hospital ownership;
- Beds in nursing and residential care facilities;
- Medical technology;
- Technical resources in hospital.

Related metadata

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Annexes

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Physicians
Dentist
Nursing and caring professionals
Pharmacists
Physiotherapists
Health personnel employed in hospital
Hospital beds by type of care
Hospital beds by hospital ownership
Beds in nursing and residential care facilities
Medical technology
Technical resources in hospital
Graduates
Health workforce migration