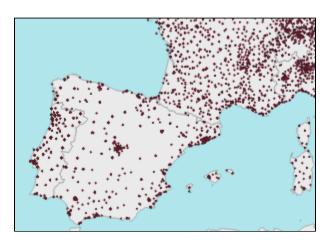
# **Healthcare services in Europe**





#### **Version**

0.9.12 (16/04/2020)

## **General description**

The European Social Charter<sup>1</sup> emphasizes the importance of healthcare services accessibility. EU Member States (MS) are obligated to have an adequate healthcare system which does not exclude parts of the population from receiving healthcare. However, access to healthcare is difficult to measure without a detailed methodology for collecting, harmonizing, and maintaining a pan-European register of healthcare services. This dataset results from an integration of official data sources from Member States, with the location of services as a minimum information. Additional information is included when available (see **attributes** below). Reliable pan-European geospatial datasets for EU institutions are required to further develop GI capacities at EU level, and an important step in reducing inequalities across the EU.

The dataset contains information on main healthcare services considered to be 'hospitals' by Member States. The definition varies slightly from country to country, but roughly includes the following: "'Hospitals' comprises licensed establishments primarily engaged in providing medical, diagnostic, and treatment services that include physician, nursing, and other health services to in-patients and the specialised accommodation services required by inpatients. Hospitals may also provide out-patient services as a secondary activity. Hospitals provide in-patient health services, many of which can only be provided using the specialised facilities and equipment that form a significant and integral part of the production process. In some countries, health facilities need in addition a minimum size (such as number of beds) in order to be registered as a hospital. "<sup>2</sup> In some cases, facilities without in-patient services may be included.

A variety of data sources are available at MS level with different quality criteria: level of detail, timeliness and update frequency, etc. This methodology aims to progressively build pan-European datasets from MS official data and maintain them in a sustainable manner. Different data sources could be selected depending on the needs and the cases but priority is given to data sourced from Health Ministries, or other official outlets indicated by Ministries. Data is semantically harmonised with a common (simple) schema. Production relies on automated processes: MS data are retrieved, combined, harmonised and updated automatically, as far as possible, using up-to-date techniques.

More information: https://ec.europa.eu/health//sites/health/files/systems performance assessment/docs/com2014 215 final en.pdf

### Contribution

Data provided may contain inconsistencies or inaccuracies. If you would like to contribute by suggesting alternative data sources or notice any issues, please contact Eurostat user support.

#### **Attributes**

Attribute	Datatype	Description
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id	text	The healthcare service identifier.  This identifier is based on national identification codes, if it exists.				
hospital_na me	text	The name of the healthcare institution.				
site_name	text	The name of the specific site or branch of a healthcare institution.				
lat	double	Latitude (WGS 84).				
lon	double	Longitude (WGS 84).				
street	text	Street name.				
house_num ber	text	House number.				
postcode	text	Postcode.				
city	text	City name (Sometimes refers to a region or municipality).				
сс	text	Country code (2 letters, ISO 3166-1 alpha-2).				
country	text	Country name.				
emergency	text	'yes/no' for whether the healthcare site provides emergency medical services.				
cap_beds	int	Measure of capacity by number of beds (most common).				
cap_prac	int	Measure of capacity by number of practitioners.				
cap_rooms	int	Measure of capacity by number of rooms.				
facility_type	text	If the healthcare service provides a specific type of care e.g. Psychiatric hospital. This type is based on the national classification.				
public_priv ate	text	'private/public' status of the healthcare service.				
list_specs	text ',' delim	List of specialties recognized in the European Union and European Economic Area according to the 2005 EU Directive (See Annex V) <sup>3</sup>				
tel	text	Telephone number.				
email	text	Email address.				
url	text	URL link to the institution's website.				
ref_date	date	The reference date (DD/MM/YYYY) the data refer to. The dataset represents the reality as it was at this date.				
pub_date	date	The publication date of the dataset by Eurostat (DD/MM/YYYY). This should be used to track when this Eurostat dataset has changed.				
geo_qual	int	A quality indicator for the geolocation.  1: Good, 2: Medium, 3: Low, -1: Unknown				
comments	text	Some additional information on the healthcare service.				

## Geometrical representation and coordinate reference system

The locations are represented as point geometries with geographical coordinates (longitude, latitude) in WGS84 (EPSG:4326).

The position of a healthcare service is sometimes computed automatically from its postal address, using geocoding. This position might thus be inaccurate. The attribute  $geo\_qual$  documents the confidence level of this positioning.

## **Geographical extent**

EU and neighboring countries. The countries covered are listed in the table below ('Data sources' section) and on this page.

## Data sources and reference date

Country	Data source	Reference date	Update frequency	URL (if applicable)
ВЕ	Santé publique, Sécurité de la Chaîne alimentaire et Environnement (SPF)	2020	As needed	https://www.health.belgium.be/fr/sante/organisation-des-soins-de-sante/partage-de-donnees-de-sante/institutions-de-soins
BG	National Statistical Institute, "Health and Justice Statistics"	2012-2013	Not stated	
cz	Národní registr poskytovatelů zdravotních služeb (National register of health service providers)	01/04/2020	Monthly	https://nrpzs.uzis.cz/index.php?pg=homedownload
DK	Ministry of Health and Retirement	01/01/2018	Not stated	https://www.ft.dk/samling/20191/almdel/suu/spm/235/svar/1617660/2122710.pdf
DE	Ministry of Health	2017	As needed	https://www.dkgev.de/themen/digitalisierung-daten/informationstechnik-im-krankenhaus/verzeichnisse-und-register/
EE	-	-	-	-
IE	Health Service Executive - Health Atlas Ireland	03/2020	Continuous	https://www.hse.ie/eng/services/maps/
EL	Ministry of Health	15/01/2015	Not stated	https://www.moh.gov.gr/articles/citizen/xrhsima-thlefwna-amp-dieythynseis /75-nosokomeia-ana-ygeionomikh-perifereia
ES	National Hospital Catalog	31/12/2018	Annual	https://www.mscbs.gob.es/ciudadanos/prestaciones/centrosServiciosSNS /hospitales/
FR	Ministry of Health	03/2020	Bi-monthly	Fichier National des Etablissements Sanitaires et Sociaux (FINESS)  https://www.data.gouv.fr/en/datasets/finess-extraction-du-fichier-des-etablissements/
HR	Ministry of Health	22/09/2017	Not stated	http://www.data.gov.hr/dataset/adresar-zdravstvenih-ustanova-privatnih-praksi
IT	Ministry of Health	2020	Annual	http://www.dati.salute.gov.it/dati/dettaglioDataset.jsp?menu=dati&idPag=2
CY	Nr. of Beds: Ministry of Health Facilities: Statistical Service of Cyprus (CYSTAT)	2017	Not stated	https://www.mof.gov.cy/mof/cystat/statistics.nsf /populationcondition_23main_en/populationcondition_23main_en? OpenForm⊂=3&sel=2 ( <i>Health and Hospital Statistics 2017</i> )
LV	The National Health Service of the Republic of Latvia	2019	Not stated	http://www.vmnvd.gov.lv/lv/veselibas-aprupes-pakalpojumi/slimnicas/slimnicusaraksts http://www.vmnvd.gov.lv/lv/veselibas-aprupes-pakalpojumi/954-slimnicuuznemsanas-nodalas http://www.vmnvd.gov.lv/lv/veselibas-aprupes-pakalpojumi/steidzamas-mediciniskas-palidzibas-punkti
LT	Institute of Hygiene Lithuania	End 2018	Not stated	http://www.hi.lt/uploads/pdf/statistika/fondas/A6_macro.xlsm
LU	Ministry of Health	2019	Bi-annual	https://sante.public.lu/fr/politique-sante/systeme/organisation/hopitaux/2019- 05-liste-hopitaux.pdf

HU	National Health Insurance Fund (NEAK)	01/02/2020	Monthly	http://www.neak.gov.hu/felso_menu/szakmai_oldalak/publikus_forgalmi_adatok /gyogyito_megelozo_forgalmi_adat
				(Gyógyító-megelőző ellátások finanszírozási adatai (Financing information for curative and preventive care))
МТ	Ministry of Health	2020	Not stated	The Hospitals Information System (NHIS)
				https://deputyprimeminister.gov.mt/en/dhir/Pages/Registries/hospitalstatistics.aspx
NL	Volksgezondheidenzorg.	2019	Annual	https://www.volksgezondheidenzorg.info/sites/default/files/ziekenhuizen2019_rivm.xlsx
AT	Ministry of Health	2020	Quarterly	https://www.sozialministerium.at/Themen/Gesundheit/Gesundheitssystem/Krankenanstalten/Krankenanstalten-und-selbststaendige-Ambulatorien-in-Oesterreich/Krankenanstalten-in-Oesterreich.html
PL	Center of health information systems (CSIOZ)	03/2020	Continuous	https://dane.gov.pl/dataset/1642,ewidencja-szpitalnych-oddziaow-ratunkowych-centrow-urazowych-centrow-urazowych-dla-dzieci-i-jednostek-organizacyjnych-szpitali-udzielajacych-swiadczen-w-zakresie-ratownictwa-medycznego (Ewidencja szpitalnych oddziałów)
PT	Administração Central do Sistema de Saúde (ACSS)	12/2019	Not stated	https://dados.gov.pt/pt/datasets/caracterizacao-das-valencias-de-urgencia/
RO	Ministry of Health	Not stated	Not stated	http://infrastructura-sanatate.ms.ro/spitale/harta1
SI	National Institute of Public Health (NIJZ)	06/03/2020	Monthly	https://www.nijz.si/sl/mesecni-izvlecki-iz-evidence-gibanja-zdravstvenih-delavcev-in-mreze-zdravstvenih-zavodov-rizddz
SK	-	-	-	-
FI	Finnish Institute for Health and Welfare	2019	Annual	https://thl.fi/fi/tilastot-ja-data/ohjeet-tietojen-toimittamiseen /hoitoilmoitusjarjestelma-hilmo/toimipaikkarekisteri-topi/topi-haku
SE	Sveriges Kommuner och Regioner (SALAR)	2018	Annual	https://skr.se/ekonomijuridikstatistik/statistik/ekonomiochverksamhetsstatistik. 1342.html
IS	-	-	-	-
NO	Helsenorge	01/01/2020	Continuous	https://helsenorge.no/velg-behandlingssted/behandlingssteder-som-rapporterer-ventetider
СН	Ministry of Health	2017	Not stated	https://www.bag.admin.ch/bag/de/home/zahlen-und-statistiken/zahlen-fakten-zu-spitaelern/kennzahlen-der-schweizer-spitaeler.html

## **Update Frequency**

The dataset is updated regularly as data coverage improves. Once considered complete, it will be updated annually.

## **Download service**

 $Eurostat\ website\ download\ page:\ https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/healthcare-services$ 

Download space: https://gisco-services.ec.europa.eu/pub/healthcare/

API: https://gisco-services.ec.europa.eu/pub/healthcare/<format>/<geo\_code>.<format> where format is the encoding format among {'csv', 'geojson', 'gpkg'} and geo\_code is the 2 letters country code, or 'a/l' to retrieve all data.

## **Encoding**

The data is encoded in CSV, GeoPackage or GeoJSON formats. For a conversion in other GIS formats, you could use GDAL. The character encoding is UTF-8.

#### Licence

See the licensing conditions for every individual country in the table above, on the website of the provider.

## **Quality assurance - validation**

Comparison against Eurostat's dataset 'Hospital beds by NUTS 2 regions' (hlth\_rs\_bdsrg) lead to good agreement for the countries AT, BE, IT, HU within the 10% confidence interval. An exception was noted for RO where further investigation is ongoing. It must be noted that data used for the comparison refers to the years 2019/2020, while data in Eurobase refers to the years 2017/2018.

#### References

<sup>&</sup>lt;sup>1</sup> European Social Charter (revised), Strasbourg, 3.V.1996. European Treaty Series (ETS), No. 163. Council of Europe, 2 Oct. 2003. http://conventions.coe.int/Treaty/en/Treaties/Word/163.doc. Accessed 25 March 2020.

<sup>&</sup>lt;sup>2</sup> A System of Health Accounts 2011: Revised edition. OECD, Eurostat and World Health Organization, 2017. <a href="https://ec.europa.eu/eurostat">https://ec.europa.eu/eurostat</a> /documents/3859598/7985806/KS-05-19-103-EN-N.pdf/60aa44b0-2738-4c4d-be4b-48b6590be1b0. Accessed 25 March 2020.

<sup>&</sup>lt;sup>3</sup> Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (Text with EEA relevance): ANNEX V, Recognition on the basis of coordination of the minimum training conditions. European Parliament, Council of the European Union, 15 Apr. 2019. http://data.europa.eu/eli/dir/2005/36/2019-04-15. Accessed 25 March 2020.