



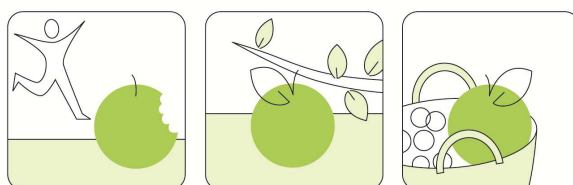
**EU Public Health Outcome Research and Indicators Collection
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**Information on national hospital data collections
in the EU states participating to Euphoric Project**

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EUPHORIC Project

MAIN BENEFICIARY



Istituto Superiore di Sanità, *Italy*

ASSOCIATED BENEFICIARIES



EFORT/EAR Verein zur Unterstützung der Tätigkeit von nationalen Endoprothesenregistern, *Austria*



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Slovak Arthroplasty Register, *Slovak Republic*



Arthroplasty Register Tyrol, *Austria*



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BQS Bundesgeschäftsstelle Qualitätssicherung gGmbH, *Germany*



Israel Society for the Prevention of Heart Attacks at NCRI, *Israel*

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1. National Hospital Data Collection System

Start of hospital data collection

Country	
Austria	Starting from 1978. Data collected as now since 1997.
Bulgary	Not reported.
Finland	Starting from 1967. New elements since 1995.
France	Starting from 1977.
Germany	Not reported.
Greece	Not reported.
Italy	Starting from 1995. Good level of accuracy and completeness only since 1999.
Slovak Republic	Not reported.
Spain	Starting from 1977: <i>Encuesta Nacional de Hospitales (ENH-INE)</i> : National data published since 1977. They use a random sample of 70% of Spanish hospitals and a random sample of 70% of discharge records. Only aggregated data produced. We do not know whether it is possible to obtain databases. No ID. 1992 to date: <i>Conjunto mínimo Básico de Datos (CMBD)</i> : this is a different system based on a computer file with an ensemble of data from patients discharged from all Spanish hospitals. Includes ID diagnoses and procedures. Quality varies depending on the Autonomous Community (e.g., in Catalonia the coverage is more than 95% of general hospitals (100% of public hospitals)).
Sweden	Starting from 1987.

2. General data

National definition of hospitals (yes, no)

Country	
Austria	Yes. <u>Definition</u> : Defined in Federal Hospital Act.
Bulgary	Not reported.
Finland	No.
France	Yes. <u>Definition</u> : hospitals defined as health establishments providing short-term care or concerning serious conditions during their acute phase in medicine, surgery, obstetrics, odontology or psychiatry' with or without accommodation.
Germany	Not reported.
Greece	Not reported.
Italy	Yes. <u>Definition</u> : Public and private hospitals. Hospitals are classified according to ICHA-HP Classification of health care providers (OECD).
Slovak Republic	No.
Spain	Yes. <u>Definition</u> : Health Centre: organized set of technical and professional resources licensed or officially registered to provide health care activities addressed to the population. They can be integrated by one or more different services-units which constitute their health care offer. From their classification hospitals are thus able to attend in-patients.
Sweden	No.

Identification of individual hospitals (yes, no)

Country

Austria	Yes. Hospital number allows analyses by hospital, but publishing data by hospital requires permission from the hospitals, or data must be anonymised (regional or national level for publishing).
Bulgary	Not reported.
Finland	Yes.
France	Yes. Each hospital is identified by a FINESS number, which locates it in a department or region. There are two levels of geographical analysis coded on the database currently used.
Germany	Not reported.
Greece	Not reported.
Italy	Yes. The hospital national code allows to identify the hospital. The first 3 digits of the code identify the region where hospital is located.
Slovak Republic	Yes.
Spain	From CMBD yes, but access is restricted by signed agreement.
Sweden	Yes. Possible to analyse by location of hospital. Most hospitals are situated in one street address. But in some districts a hospital is analysed as part of the health care organisation and parts of the hospital might be situated in different cities.

Information on destination on discharge (yes, no). If yes, specify categories

Country

Austria	Yes. <u>Categories:</u> "Type of discharge" code (8 categories) differentiates between discharge from hospital (including death), transfer to another hospital and end of an inpatient's hospital stay due to in-house transfer to another special service area (e.g. to rehabilitation) or expiry of social insurance coverage.
Bulgary	Not reported.
Finland	Yes. <u>Categories:</u> Institution (seven different options), home (two different options), dead.
France	Yes. <u>Categories:</u> internal transfer, transfer to another establishment, return to home address, dead.
Germany	Not reported.
Greece	Not reported.
Italy	Yes. <u>Categories:</u> (1) Death; (2) Patient is allowed to go back home (inpatient) or the cycle of treatment is finished (day case); (3) Patient is transferred to a nursing home; (4) Patient is allowed to go back home but with home care services; (5) Patient decides to leave the hospital (or interrupts the cycle of treatment) against medical advice; (6) Patient is transferred to another hospital for acute care; (7) Inpatient becomes day case or vice versa or the kind of general treatment changes (acute care, rehabilitation and long stay); (8) Patient is transferred to another hospital for rehabilitative care; (9) Other.
Slovak Republic	Yes. <u>Categories:</u> home, other hospital, rehabilitative care, social institution, prematurely discharged on self responsibility, transmitted to another department of same hospital (another consultant episode), death, other.
Spain	Yes. <u>Categories:</u> (1) home; (2) transferred to another hospital; (3) voluntary discharged; (4) dead, (9) other.
Sweden	Yes. <u>Categories:</u> to another department within hospital or to another hospital; to home for old people or similar type of institution; home; death.

3. Demographic data

Unique patient identification (yes, no). If yes, specify whether linkable

Country

Austria	Yes. <u>Specify:</u> A unique admission code is assigned to each new inpatient and is intended to remain with that patient for several years, so hospitals are in the position to draw up an individual "case history". The identification of inpatients via admission codes can only be done at the hospital level.
Bulgary	Not reported.
Finland	Yes. A personal identification number.
France	Yes. <u>Specify:</u> The PMSI for patients admitted after 31 December 2001 includes an automatic creation of an anonymous number from personal details such as the social security number, date of birth and sex. Automatic procedure to create this anonymous number has been changed after 31 December 2003. Linkage between data before and after 1/1/2003 are not possible.
Germany	Not reported.
Greece	Not reported.
Italy	Yes. <u>Specify:</u> Since 2001 each discharge has been recorded with one's individual code (fiscal code). This code allows to link patient admissions in different years and Hospital Information System (HIS) database to other regional databases. For the right to privacy only few people are allowed to read this information.
Slovak Republic	Yes. <u>Specify:</u> National unique identification number, health insurance unique patient number, hospital unique patient identification number.
Spain	Yes. <u>Specify:</u> in CMBD a unique patient number is established by law, although not totally implemented. A clinical record number is assigned by the hospital for each patient and is intended to remain with that patient by hospital for year, so it is possible to aggregate data for patient for a specific hospital and year by creating a patient code number (record number + hospital code + sex + date of birth). Again this depends on the Autonomous Community and it works quite well for Catalonia, for example. Other Autonomous Communities may have a different ID structure.
Sweden	Yes. <u>Specify:</u> Each patient has a 12-digit personal identification number, that is used also in a lot of other databases.

Information on the patient's date of birth and/or patient's age (yes, no). If yes, specify format

Country

Austria	Yes. <u>Format:</u> Date of birth, if not known then hospital administrative staff estimate the age of patient based on known facts.
Bulgary	Not reported.
Finland	Yes. <u>Format:</u> Date of Birth (DDMMYY). Age is calculated as Date of Admission minus Date of Birth.
France	Yes. <u>Format:</u> Age is calculated as : Date of entrance in the hospital – (minus) Birth date
Germany	Yes. <u>Format:</u> Date of Birth. Age is derived from the date of admission and date of birth.
Greece	Not reported.
Italy	Yes. <u>Format:</u> Date of birth (8 digits, DDMMYYYY). The age of the patient (3 digits) is calculated as the difference between date of hospital admission and date of birth. For the right of privacy, only few people are allowed to read information about patient's date of birth and hospital admission.

Spain	Yes. <u>Format:</u> Date of birth (DDMMYYYY).
Slovak Republic	Yes. <u>Format:</u> Date of birth (DDMMYYYYY). Age is derived from the date of admission and date of birth.
Sweden	Yes. <u>Format:</u> Age at discharge, date of birth, age at admission can be calculated.

Information on the patient's gender (yes, no). If yes, specify categories

Country

Austria	Yes. <u>Categories:</u> Male, female.
Bulgary	Not reported.
Finland	Yes. <u>Categories:</u> Male, female.
France	Yes. <u>Categories:</u> Male, female
Germany	Yes. <u>Categories:</u> Male, female
Greece	Yes. <u>Categories:</u> Male, female.
Italy	Yes. <u>Categories:</u> (1) male, (2) female.
Spain	Yes. <u>Categories:</u> (1) Male, (2) Female, (3) Indeterminate, (9) Not specified.
Slovak Republic	Yes. <u>Categories:</u> Male, female
Sweden	Yes. <u>Categories:</u> Male, female or unknown.

Level of geography coded in relation to patients

Country

Austria	Post code / country of residence (3 digit code).
Bulgary	Not reported.
Finland	Municipality / country of residence.
France	Post code automatically regrouped to geographic areas of at least 1000 population.
Germany	Not reported.
Greece	Not reported.
Italy	City or Country of birth (6 digit code): if the patient was born in a foreigner country, the first 3 digits should be 999 followed by the Country code; if the patient was born in Italy 6 digit code identifies the city. City or Country of residence (6 digit code): if the patient dwells in a foreigner country, the first 3 digits should be 999 followed by the Country code; if the patient dwells in Italy 6 digit code identifies the city. Geographical codes are given by ISTAT (National Institute of Statistics). For the right of privacy, only few people are allowed to read information about birth and residence place of patients.
Spain	Post code (5 digits). For patients treated in Spanish hospitals who live abroad: 54 + country of residence (3 digits). Low completeness (most of them are identified as foreigners without identifying the country).
Slovak Republic	District.
Sweden	Country, city, town, municipality, parish. A code for patients live abroad, same for all countries.

Information on patients' socioeconomic status (yes, no). If yes, define

Country

Austria	No.
Bulgary	Not reported.
Finland	Yes: partly. <u>Definition:</u> Some social reasons occur among reasons of admission.
France	No.
Germany	Not reported.
Greece	Not reported.
Italy	No. However, educational levels and employment are recorded.
Spain	No.
Slovak Republic	Yes. <u>Definition:</u> Education, employment
Sweden	Yes. <u>Definition:</u> Analysis by social class possible by linking to other data sources.

4. Information on diagnoses**Information on the patient's diagnoses (yes, no)****Country**

Austria	Yes.
Bulgary	Not reported.
Finland	Yes.
France	Yes.
Germany	Yes.
Greece	Yes.
Italy	Yes.
Spain	Yes.
Slovak Republic	Yes.
Sweden	Yes.

Identification of a primary diagnosis (yes, no). If yes, define**Country**

Austria	Yes. <u>Definition:</u> The primary diagnosis is the 'main condition', as defined in ICD-10. It is the diagnosis finally established as the main reason for the hospital stay (discharge diagnosis).
Bulgary	Not reported.
Finland	Yes. <u>Definition:</u> The primary diagnosis is the 'main condition', as defined in ICD-10.
France	Yes. <u>Definition:</u> The primary diagnosis is the 'main condition', as defined in ICD-10.
Germany	Yes. <u>Definition:</u> The primary diagnosis is the 'main condition', as defined in ICD-10.
Greece	Yes. <u>Definition:</u> The primary diagnosis is the 'main condition', as defined in ICD-10.
Italy	Yes. <u>Definition:</u> The main diagnosis is identified at the discharge. It must be the main reason for hospital treatment and care. If there were more main diagnoses, it must be indicated as the main one, the diagnosis requiring more resources. If a neoplasm is the reason of the admission, it must be indicated as main diagnosis.
Spain	Yes. <u>Definition:</u> The main condition, diagnosed at the discharge, primarily responsible for the patient stay in the hospital.
Slovak Republic	Yes. <u>Definition:</u> It is defined as that which was responsible for the patient's treatment, or as that

	which best reflects the main reason for admission, or that which is the main reason for treatment.
Sweden	Yes. <u>Definition:</u> The main condition, diagnosed at the discharge, primarily responsible for the patients stay in the department.

Information on secondary diagnoses (yes, no). If yes, specify the number of diagnoses recorded

Country

Austria	Yes. <u>Number recorded:</u> Unlimited.
Bulgary	Not reported.
Finland	Yes. <u>Number recorded:</u> 2.
France	Yes. <u>Number recorded:</u> Up to 99 additional or secondary diagnoses.
Germany	Not reported.
Greece	Not reported.
Italy	Yes. <u>Number recorded:</u> Up to five secondary diagnoses can be recorded. They can be existing at the admission or developed after, but requiring care and treatment.
Spain	Yes. <u>Number recorded:</u> 12.
Slovak Republic	Yes. <u>Number recorded:</u> 19.
Sweden	Yes. <u>Number recorded:</u> Up to 7.

Classification system currently used to record diagnoses

Country

Austria	ICD-10.
Bulgary	Not reported.
Finland	ICD-10.
France	ICD-10.
Germany	ICD-10.
Greece	ICD-10.
Italy	ICD-9-CM version 19 (Italian version 2002 since January 2006)
Spain	ICD-9-CM, in transition to ICD-10
Slovak Republic	ICD-10.
Sweden	ICD-10.

5. Information on Procedures

Information on procedures performed during the hospital admission (yes, no)

Country

Austria	Yes.
Bulgary	Not reported.
Finland	Yes.
France	Yes.
Germany	Yes.
Greece	Yes.
Italy	Yes.
Spain	Yes.
Slovak Republic	Yes.
Sweden	Yes.

Identification of a primary procedure (yes, no). If yes, define

Country

Austria	No.
Bulgary	Not reported.
Finland	Yes. <u>Definition:</u> The main procedure is the procedure which has consumed most resources. It should also be the reason for putting a patient on the waiting list.
France	No.
Germany	No.
Greece	Not applicable.
Italy	Yes. <u>Definition:</u> the procedure which has required most resources and/or related to primary diagnosis, although such hierarchy is not necessary for calculating the DRG. The priority arrangement for surgical procedures should be: 1) open surgery; 2) endoscopic and laparoscopic techniques; 3) surgical diagnostic or therapeutic procedures, e.g. polyp excision during a diagnostic colonoscopy; 4) Procedures with or without biopsy.
Spain	No. National rules distinguish between diagnostic and therapeutic procedures although finally there are not neither such distinction nor hierarchy. From the GRD the procedure can be associated to a surgical/not surgical condition.
Slovak Republic	No. Before DRG system implementation we have recorded primary procedure.
Sweden	No.

Information on additional procedures (yes, no). If yes, specify the number of procedures recorded**Country**

Austria	Yes.
Bulgary	Not reported.
Finland	Yes. <u>Number recorded:</u> 2.
France	Yes. <u>Number recorded:</u> up to 99.
Germany	Yes. <u>Number recorded:</u> up to 100.
Greece	Not applicable.
Italy	Yes. <u>Number recorded:</u> up to 5 additional procedures.
Spain	Yes. <u>Number recorded:</u> total 20.
Slovak Republic	<u>Number recorded:</u> 20 (all together with the primary)
Sweden	Yes. <u>Number recorded:</u> Up to 11.

Classification system currently used to record procedures**Country**

Austria	Austrian Procedure Classification since 1997.
Bulgary	Not reported.
Finland	Nordic classification of surgical procedures (NCSP) from 1997.
France	CCAM (since 2006).
Germany	German "Operationen und Prozedurenschlüssel Internationale Klassifikation der Prozeduren in der Medizin" (OPS) Version 2007
Greece	The National Statistical Service has not adapted any national or international classification. Any available procedure data are reported according the ICD-9 classification for diseases. For example we know the exact number for Breast Cancer procedures that were performed, but we are not able to know the kind of operation (e.g total or partial mastectomy).
Italy	ICD-9-CM version 19 (Italian version 2002 since January 2006).
Spain	ICD-9-CM.
Slovak Republic	ICD-10 AM (since April 2004).
Sweden	Nordic classification of surgical procedures.

Risk adjustment measures used in this system (yes, no). If yes, specify type

Country

Austria	No.
Bulgary	Not reported.
Finland	No.
France	Yes. Type: Age and/or co-morbidities derived from DRGs classification.
Germany	Not reported.
Greece	Not reported.
Italy	No. However, the software APR-DRG has been used occasionally. The only experience at national level of using co-morbidities for risk adjustment is the project "Mattoni-Outcome" funded by the Ministry of Health.
Spain	Yes. Type: AP-DRG. Annually Spanish relative weights and cost is established from a sample of hospitals representing the National Health System (public hospitals and network of publicly financed ones). A National standard is also published in order to provide statistics of reference for comparison purposes.
Slovak Republic	No.
Sweden	No.

6. Publishing information by hospitals**Individual hospitals available for publication/analysis (yes, no)****Country**

Austria	Yes: for analyses, but not for publication.
Bulgary	Not reported.
Finland	Yes.
France	Yes.
Germany	Not reported.
Greece	Not reported.
Italy	There are some restrictions to publish data on individual hospitals.
Spain	Hospital numbers allow analysis by hospital and by type of hospital, but usually information is provided by Autonomous Communities and the hospital code are anonymous when data are provided for research, for example.
Slovak Republic	Analysis yes, publication no.
Sweden	Yes.