**Percentage of non-residents among all hospital discharges**

**Definitions**

*Updated: July 2018*

<table>
<thead>
<tr>
<th>Hospital discharges of non-resident patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>A hospital discharge is the formal release of a patient from a hospital.</td>
</tr>
<tr>
<td><strong>Inclusion</strong></td>
</tr>
<tr>
<td>- Discharges from all hospitals, including general hospitals (HP.1.1), mental health hospitals (HP.1.2), and other specialised hospitals (HP.1.3)</td>
</tr>
<tr>
<td>- Deaths in hospital</td>
</tr>
<tr>
<td>- Transfers to another hospital</td>
</tr>
<tr>
<td>- Discharges of healthy newborns</td>
</tr>
<tr>
<td><strong>Exclusion</strong></td>
</tr>
<tr>
<td>- Transfers to other care units within the same hospital</td>
</tr>
</tbody>
</table>

a) Inpatient cases

An inpatient discharge is the release of a patient who was formally admitted into a hospital for treatment and/or care and who stayed for a **minimum of one night**.

**Inclusion**

- Emergency cases and urgent admissions when they resulted in an overnight stay and formal admission
- Patients admitted as day-care patients but who have been retained overnight due to complication

**Exclusion**

- Day cases
- Outpatient cases (including emergency department visits)

b) Day cases

A day-care discharge is the release of a patient who was *formally admitted* in a hospital for receiving *planned* medical and paramedical services, and who was *discharged on the same day*.

**Inclusion**

- Non-admitted patients who were subsequently admitted for day-care

**Exclusion**

- Inpatient cases
- Outpatient cases (including emergency department visits)
- Patients admitted as day-care patients but who have been retained overnight due to complication

c) A bed-day (or inpatient day) is a day during which a person admitted as an inpatient is confined to a bed and in which the patient *stays overnight* in a hospital.
Inclusion
- Bed-days in all hospitals, including general hospitals (HP.1.1), mental health hospitals (HP.1.2), and other specialised hospitals (HP.1.3)
- Bed-days of healthy newborns

Exclusion
- Day cases

Notes
- The number of bed-days should be counted as the date of discharge minus the date of admission (for example, a patient admitted on the 25th and discharged on the 26th should be counted as 1 day).

Note: The list of diagnostic categories is based on the International Shortlist for Hospital Morbidity Tabulation (ISHMT). Click below to see the complete shortlist with ICD-10 and ICD-9 codes: http://stats.oecd.org/HEALTH_QUESTIONNAIRE/ISHMT/JQNMHC_ISHMT.pdf

A non-resident patient is a patient living in another country/region but coming in the country/region of reference for a treatment and/or care.

Country specific notes

Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom, Iceland, Liechtenstein, Norway, Switzerland, Montenegro, former Yugoslav Republic of Macedonia, Albania, Serbia, Turkey
Belgium

Source of data: The Federal Public Service Health, Food Chain Safety and Environment, DGGS - Hospital Clinical Data (RHM).  

Coverage: In view of the applicable privacy protection legislation, values below 5 cannot be transmitted. This occurs for many countries. For neighbouring countries (FR, NL, GB, LU and DE), data are transmitted both on the country of residence and the location of treatment. For other countries with more than 100 admission, the data are given on the BE total level.

Bulgaria

Source of data: National Center for Public Health and Analysis at the Ministry of Health
From 2011: National Centre for Public Health and Analyses

Coverage: Number of non-residents in in-patient cases includes discharged and deceased patients from hospitals.
Only data on total of non-residents cases are available.

Czech Republic


Coverage:
- Definition of one case of hospitalisation: a termination of each stay of one patient in one hospital, encompassing termination home, to other institution or death.
- Definition of day case of hospitalisation: a case with the same date of admission and discharge, excluding deaths in the first day. But only patients registered as hospitalised patients are included, that is patients admitted to and discharged from a bed care department of health care establishment.
- Data relates to hospitals and specialised therapeutic institutes (all bedcare health establishments excluding balneologic institutes and convalescence homes for children).
- Division of EU and non-EU non-citizens discharged in the Czech Republic is available since year 2006. Non-resident Czech citizens are treated as resident Czech citizens.
- Residents in the Czech Republic discharged abroad not included.

Deviation from the definition:
- Day cases encompass only day cases inpatients registered as hospitalised patients, that is patients admitted to and discharged from a bed care department of health care establishment.
- Nationality (citizenship) concept used instead of concept of residence (place of residence).

Denmark

Source of data: The Danish National Patient Register.
Reference period: During the years 2014-2016, by discharge date

Coverage: Data for Danes treated outside Denmark is only available from 2002.
Eastern European countries such as Poland, Lithuania, Estonia, Latvia, Hungary and the Czech Republic are only registered after 1st July 2005. For all other years, they are included in EU00.
Data covers public and private sectors
Deviation from the definition

Day cases is inpatients who was formally admitted into a hospital for treatment and/or care and who was discharged on the same day.

The number of bed days does not include bed days from previous patient contacts in the same hospital. If a patient is hospitalized in care unit A and afterwards transferred to care unit B in the same hospital and then discharged, then only bed days from ward B is included.

Germany

Source of data: Federal Statistical Office, Hospital statistics 2016 (diagnostic data of the hospital patients and patients of prevention or rehabilitation facilities); special calculations by the Federal Statistical Office.

See [http://www.destatis.de](http://www.destatis.de) or [http://www.gbe-bund.de](http://www.gbe-bund.de).

Coverage:
- An inpatient discharge is the release of a patient who was formally admitted into a hospital for treatment and who stayed for a minimum of one night. The number of discharges includes deaths in hospitals, but excludes same-day separations and transfers to other care units within the same institutions. Day cases are excluded.
- Day cases are patients that are admitted with the intention of discharging on the same day. They were identified by the same admission and discharge dates.
- The number of bed-days refers to the sum of all inpatients at midnight. The day of admission counts as one bed-day so that day cases (patients admitted for a medical procedure or surgery in the morning and released before the evening) are normally also included. As one day case constitutes one bed-day it is possible to adjust the number of bed-days so that day cases are excluded.
- Coverage by hospital type: Data include discharges during a given calendar year from all types of hospitals (HP1.1, 1.2 and 1.3) in all sectors (public, non-profit and private). Up to and including reporting year 2002 data only include discharges from general hospitals and mental health hospitals.
  - As of reporting year 2003 data include additionally discharges from prevention and rehabilitation facilities, however discharges of these institutions with 100 or less than 100 beds are not included. Long-term nursing care facilities are excluded.
- Missing records: Discharges from prevention and rehabilitation facilities with 100 or less than 100 beds are not included (about 13% of all discharges in rehabilitation centres).
- Other notes related to coverage:
  - The number of discharges includes patients with unknown diagnosis, age and/or sex.
  - From reporting year 2004 live-born infants according to place of birth coded with ICD-10 Z38 (2103) and patients coded with ICD-10 D90 “Immunocompromisation after radiation, chemotherapy and other immunosuppressive measures” (0300, 0302) are included.
  - From reporting year 2005 patients coded with ICD-10 U00-U99 "Codes for special purposes" (8888) are included.
  - As of reporting year 2000 discharges have been collected according to the International Classification of Diseases, 10th revision. In 2000, ICD-9-coded cases are included (about 2%).

Break in time series:
- Up to and including reporting year 2002 data only include discharges from general hospitals and mental health hospitals. As of reporting year 2003 data include additionally discharges from prevention and rehabilitation facilities, however discharges of these institutions with 100 or less than 100 beds are not included. The years before 2003 are therefore not comparable to the following years.
- In 2014, there was a change in encoding guidelines. The encoding guideline concerning "Spontaneous vaginal delivery of a singleton" has been completely deleted from 2014. Therefore, the specified restrictions on the use of ICD-10 code O80 have also been omitted. For example, the
restriction, that in a spontaneous delivery with perineal rupture the code O80 was not allowed to be indicated, has been cancelled.

Additional information:
- In German health statistics publications the number of discharges includes the number of inpatients as well as the number of day cases. Therefore the total number of hospital cases in these publications is higher.
- Furthermore, for each day case one bed-day is calculated. Since the average length of stay (ALOS) is the quotient of bed-days and discharges, the ALOS in these publications is lower than when calculated on the basis of only inpatients and bed-days for inpatients.

Estonia

Source of data: National Health Insurance Fund (NHIF) data merged with the data from national e-Health system
Reference period: Calendar year. NHIF data is organised according to the billing date and not the actual date of discharge from the hospital or provided day-care service.
Coverage: Data from both public and private health care providers.
NHIF data includes inpatient and day cases of EU-residents only. Reimbursement cases which go through private insurance funds are not covered in the NHIF database. The non-EU resident cases are included based on the e-Health system information.
The coverage of non-resident discharges data in e-Health system is poor. Only 12% of non-resident inpatient cases and 2% of non-resident day cases of EHIF 2015 data have been reported also into the national e-Health system. The supplementary 22% of unique inpatient cases and 49% of unique day-cases were added to the non-resident 2015 data based on e-Health data.
There is no good basis for estimating the overall coverage of all non-resident cases in NHIF and national e-Health system. According to submitted data the non-resident cases formed approximately only 0.5% of all inpatient cases and 0.3% of day-cases in 2015.

Ireland

Source of data: The data presented are derived from the HIPE (Hospital In-Patient Enquiry) data set, which records data on discharges from all publicly funded acute hospitals. HIPE is operated by the Healthcare Pricing Office (www.hpo.ie).
Coverage: HIPE data covers all in-patients and daycases receiving curative and rehabilitative care in publicly funded acute hospitals in the State. The data coverage in HIPE exceeds 96%, i.e. overall less than 4% of activity in publicly funded acute general hospitals is missing from HIPE.
For historical reasons, a small number of non-acute hospitals are included in the NHDDB. This activity represents less than 0.5% of total activity in the NHDDB.
The NHDDB does not include private hospitals. Activity data for private hospitals is not available, however based on a household survey carried out by the Central Statistics Office in 2010 it is estimated that approximately 15% of all hospital inpatient activity in Ireland is undertaken in private hospitals. It should be emphasized that this is an estimate only and so should be interpreted with caution.
Data for Psychiatric in-patients and day-cases receiving curative and rehabilitative care in specialist psychiatric hospitals (HP.1.2) have not been included. It is maintained on a separate database which uses ICD 10 for coding diagnosis and also includes long-stay patients. This activity accounts for approximately 2% of all Irish hospital activity. Psychiatric patients in acute general hospitals are recorded in the NHDDB.
Estimation method: A daycase is defined as a patient who is formally admitted with the intention of discharging the patient on the same day, and where the patient is in fact discharged as scheduled
(i.e. excluding deaths and emergency transfers) on the same day. Patients who are admitted or discharged as emergencies on the same day are considered inpatients.

In 2005 the place of residence variable was expanded to include separate categories for all EU member states. Therefore data on non-resident patients are not provided prior to 2005.

Data on non-resident patients are not available at NUTS1 or NUTS2 level; therefore data are reported at national level only for non-residents.

Data are reported separately for all EU member states; patients with area of residence in other European countries or countries outside of Europe have been categorised as EU99.

The area of residence variable in the HIPE dataset refers to the place the patient would normally reside. Foreign nationals resident in Ireland should have a code assigned for their Irish place of residence. Foreign visitors on short stay should be coded to their country of residence.

The numbers of patients from certain EU member states being treated in Irish Hospitals are very small. Therefore this data should be interpreted with caution.

From 2006 the HIPE system includes data on daycase patients admitted for dialysis in dedicated dialysis units. These episodes were previously excluded from HIPE. Note also that in 2006, batch coding was introduced to facilitate more complete coding of radiotherapy. These reasons have resulted in a substantial increase in the number of daycases in 2006 and subsequent years.

The Irish Coding Standards direct that Healthy Newborn Babies are not coded in HIPE. It is estimated that this activity would result in an increase of approximately 10% in the total number of inpatients if it was included. For further information on the numbers of births annually see the National Perinatal Reporting System (NPRS) annual reports at http://www.hpo.ie/.

**Greece**

Data not available.

**Spain**

**Source of data:**
- For inpatient cases: the source of data is the National Statistics Institute based on Hospital Morbidity Survey (http://www.ine.es/jaxi/menu.do?L=1&type=pcaxis&path=/t15/p414&file=inebase)
- For day cases: National Hospital Discharges Database. Ministry of Health and Social Services

**Coverage:** For inpatient cases: full coverage (100%) from all hospitals (public, private and military). Day cases are available from 2004; increasing coverage for public hospitals (100% from 2006). Private hospitals are included from 2005 - increasing coverage until a total of 209 in 2015.

**Estimation method:**
- It is not possible to identify patients whose place of residence is within the EU (EU00) and outside the EU (EU99). We can only confirm that the place of residence is outside of SPAIN. Therefore, instead of EU00 and EU99 groups we consider a new category (EUXX) for those patients treated in Spain whose place of residence is outside of Spain.

**France**

**Source of data:** National databases from the "programme de médicalisation des systèmes d'information (PMSI)"

**Coverage:**
- French data cover persons who live out of Metropolitan France or overseas Departments (Guadeloupe, Martinique, French Guyana and Réunion Island and, from 2015, Mayotte), who were hospitalised in the public and private hospitals of the same area. They refer to hospitalisations (and no to patients) in the units delivering acute care.
- Data for the 26 European Union Members and for the 3 non-EU adjacent countries (Monaco, Andorra and Switzerland) were counted separately.
- All other stays of non-resident were identified with the code “EU99”.
- Since 2009 the data from military hospitals are added.

**Croatia**

**Source of data:** Croatian Institute of Public Health, Croatian Annual Hospitalisations Database

**Coverage:** excluding inpatient rehabilitation and hospitalisations due to births and abortions.

**Deviation from the definition:** only country of residence is available for patients from foreign countries.

**Italy**

**Source of data:**
- Ministry of Health - General Directorate of digitalisation, health information system and statistics.
- Office of Statistics.

**Coverage:** Patient’s migration data refer to hospital events only within Italian territory.

**Estimation method:**
- For patients resident in Italy, data are provided with detail on region of residence as well as region of treatment. Both of regions are coded with 4-digits of NUTS.
- For patients resident outside of Italy, place of residence is coded with 2-digits of NUTS (National level).
- For countries where no NUTS codes exist (non-European countries), the ISO 3166 codes has been used.
- The United Kingdom and Greece have different codes in the two classifications. The UK has the code "UK" in NUTS_2013 and "GB" ISO 3166-1-alpha-2; Greece has "EL" code in the classification NUTS_2013 and "GR" in the classification ISO 3166-1-alpha-2. For these two states is used the code of classification NUTS_2013.
- Kosovo is not present in the classification NUTS_2013 nor in the ISO 3166-1-alpha-2. Therefore, Kosovo has been assigned the code EU99 (residents outside EU).
- "UNK" code was used to indicate patients stateless, homeless and in cases of residence wrong or not indicated

**Cyprus**

Data not available.

**Latvia**

**Source of data:** The National Health Service (former Health Payment Center).

**Reference period:** Data as of 31 December.

**Coverage:**
- The data cover all HP.1 providers of health care, which have a contract with the National Health Service (former Health Payment Center), and all activities of inpatient care financed by state.
- On the mobility of patients, data can be provided only for non-resident patients in Latvia, who have received state guaranteed urgent or necessary medical assistance.

**Break in time series:** Data available from 2004.

**Lithuania**
Source of data: Lithuanian Health Information Centre, since 2010: Health Information Centre of Institute of Hygiene, data from Compulsory Health Insurance Fund Information System.

Coverage: Although in health care institutions having contracts with Patient Fund information for all patients should be entered to Compulsory Health Insurance Fund Database, the quality of information on foreign patients is still not very good, especially for the non EU patients. Data available at country level only (no NUTS2).

Luxembourg

Source of data: Fichiers de la sécurité sociale. Data prepared by Inspection générale de la sécurité sociale.

Reference period: during the year.

Coverage: All budgeted hospitals have been taken into account to calculate rates (including mid-term and long-term psychiatric rehabilitation centres, functional rehabilitation centres and a specialised establishment for palliative care existing since 2011).
- As for the data collection on “hospital discharges by age and sex”, admissions from the subchapters V, W, X and Y from ICD-10 are excluded.
- Data for 2015 and 2016 are preliminary.

Estimation method:
- Classification ICD-10.
- Admissions at hospital with discharge on the same day before midnight are considered as day cases.
- We provided further detail with respect to the residence codes for non-resident discharges. Non-resident discharges are no longer grouped into EU99 and EU00, but are indicated with their specific country codes.

Hungary

Source of data: From 2004 onwards: National Healthcare Services Center (ÁEEK in Hungarian) www.aeek.hu.

Estimation method:
- The data are calculated from the itemised data of the inpatient care finance report submitted by the health insurance fund.

Malta

Source of data: Data collated from hospital discharges data submitted to the Directorate for Health Information and Research by the individual hospitals

Coverage: Data from all state and private hospitals
For 2013: Discharges data from one newly licensed small private hospital is not included as no data was submitted
For 2014: Discharges data from a small licensed private hospital is not included
For 2015: Discharges from the small private hospital which were not previously included are included in 2015 discharges data.

Estimation method: Data submitted refers to all foreign non resident patients treated during the year in all state and private hospitals.

Netherlands

Source of data:
The Hospital Discharge Register (HDR, the 'Landelijke Basisregistratie Ziekenhuiszorg' and its predecessor the 'Landelijke Medische Registratie' of Dutch Hospital Data) is the source of data on non-resident hospital discharges.

Reference period:
All hospital discharges during the calendar year are included.

Metadata information:
From 2005 onwards, the HDR in the Netherlands suffers from a degree of non-response, but as for the non-response records the place of residence is mostly known, this does not affect the patient migration data in table 2 of the Hospital MDS. However, the country of residence of non-residents is often not known (in both response and non-response records).
The discharges and hospital days of those with an unknown NUTS-code are added; all the NUTS together of a certain level should add to the total number of discharges/ hospital days of that NUTS level.
Up to 2012 the non-response hospitals not always reported the number of discharges of non-residents. This may slightly underestimate the number of hospital discharges of non-residents of the Netherlands.
To come to the total number of discharges and hospital days in Table 2 (Patient migration) the numbers of discharges/hospital days of patients with residence outside the Netherlands and the numbers of discharges/hospital days of patients with a place in the Netherlands should be added.
For the years 2006 and 2007 there is a small difference between these totals and the totals given in the file ‘Patients_and_high-tech_2009.xls’. This is caused by small differences in part of the imputed data used for ‘Patients_and_high-tech_2009.xls’ and the data files used for the Patient migration data.

Deviation/compliance with the definition
From 2013 onwards the following changes have been implemented, to comply with Eurostat definitions (these were not implemented in the figures up to 2012):
- Inpatient stays of one day without overnight stay (date of discharge minus date of admission =0) are not counted as inpatient bed-day (as no overnight stay), nor as day case (as these are registered as inpatient case type, the majority of these cases are acute admissions, and the non-acute admissions may also be unplanned).
- Discharges with the new case type ‘long observations without overnight stay’ (registered from 2014 onwards in the HDR) are excluded in the figures, as these are nor inpatients (no overnight stay) nor day cases (unplanned) according to the Eurostat definitions.
- Day cases that last longer than one day are counted as inpatient cases.
- Healthy newborns, defined as discharges with ICD10 main diagnosis Z38 or Z76.2, are not included.

The HDR covers only short-stay hospitals. The hospitals included are all general and university hospitals, one specialized eye hospital and one cancer hospital. Up to 2012 also one orthopaedics/rehabilitation clinic is included.
The register therefore does not cover all hospitals of the HP.1 category. The differences are:
- Category HP.1.2 (mental health and substance abuse hospitals) is not included at all.
- Category HP.1.3 (specialty hospitals other than hospitals for mental health and substance use):
  - Excluded are epilepsy and asthma/lung clinics, rehabilitation centres and hemodialysis centres. From 2013 onwards also one orthopaedics/rehabilitation hospital is excluded.
  - Excluded are also semi-private hospitals (independent treatment centres); these hospitals mainly have outpatients and day cases.
  - Excluded is the military hospital and private clinics. The number of inpatients and day cases are estimated to be relatively small in these clinics.
Some treatments in category HP.1. hospitals are also excluded:

- Part-time psychiatric treatments in general or university hospitals with a psychiatric ward are not recorded in the HDR.
- Cases of rehabilitation day-treatment are not registered in the HDR.

Non-inpatient admissions for normal deliveries (mother planned to be in hospital for less than 24 hours) are not registered in the HDR.

**Austria**
Data not available.

**Poland**
Data not available.

**Portugal**
Data not available.

**Romania**

**Source of data:**
National Institute for Statistics for the period 2006 - 2008
National School of Public Health and Health Management - Bucharest since 2009

**Coverage:** All hospitals from public and private sector

**Deviation from the definition:**
For 2006-2008 data refers to hospitalized patients. For migration of patients were not available data on patients discharged.

All inpatient and day cases persons (discharged persons) from public and private sector

**Estimation method:**
**Break in time series:** 2008

These inpatient cases are recordings validated by the SNSPMPDSB throughout each year (January - December), invalidated cases being excluded from the analysis.

The day cases are recordings not validated by the SNSPMPDSB throughout each year (January - December), so the invalidate cases are not excluded from the analysis (in Romania we do not have yet a validation process for day cases.)

The hospital bed-days where calculated as difference between the discharge data and the admission data. When the admission and the discharge are in the same day it was counted as 0 days. Day cases where excluded.

**Slovenia**

**Source of data:** National Institute of Public Health, Slovenia, National Hospital Health Care Statistics Database.

**Coverage:** Since 2006, the source variable has been changed - from “municipality of residence” (where municipality 000=not SI) to the new “country of residence”. Since 2006 data are higher; reason: some patients though from other countries have temporary residence in one of Slovene municipalities (for 2000-2005 their data were not registered as foreigners data).

**Slovakia**

**Source of data:** National Health Information Center; Annual report (MZSR) on network of health care providers

Reference period: 31st December.

Finland

Source of data: National Institute for Health and Welfare (THL); Hospital Discharge Register.

Sweden

Data not available.

United Kingdom

Data not available.

Iceland

Data not available.

Liechtenstein

Source of data: Data reports from hospitals.
Coverage: public and private sector.

Norway

Data not available.

Switzerland

Source of data: FSO Federal Statistical Office, Neuchâtel; Medical Statistics of Hospitals, 2002 and following years.
Reference period: Annual census
Coverage:
- Full coverage of hospitals; sufficient (nearly full) coverage of inpatient and day cases since 2002
- Due to a modification of the legislation, day cases are not collected in 2009 anymore
Deviation from the definition:
- For non-resident patients living in another country there is no specific regional NUTS code available; those cases are documented as “9999”.
- The definition and delimitation of day cases is subject to local heterogeneity; figures should be treated with caution
(some patients with multiple episodes of day-cases are recorded only once, leading to an underestimation of actual day-cases).
- In this table, and because of the regional nature of this heterogeneity, the number of day-case patients is reported (independently of the number of episodes).
- The recorded number of combined multi-episode day-case patients is 23% in 2002, decreasing to less than 5% in 2008.
Break in time series: Day cases not available since 2009.

Montenegro

Data not available.

former Yugoslav Republic of Macedonia

Data not available.
Albania
Data not available.

Serbia
Data not available.

Turkey
Data not available.