

Eurostat – Health care activities

Hospital discharges by diagnostic categories

Definitions

Updated: September 2021

Hospital discharges by diagnostic categories	<p>A hospital discharge is the formal release of a patient from a hospital.</p> <p><u>Inclusion</u></p> <ul style="list-style-type: none">- Discharges from all hospitals, including general hospitals (HP.1.1), mental health hospitals (HP.1.2), and other specialised hospitals (HP.1.3)- Deaths in hospital- Transfers to another hospital- Discharges of healthy newborns <p><u>Exclusion</u></p> <ul style="list-style-type: none">- Transfers to other care units within the same hospital <p><u>Note:</u> 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</p>
Inpatient cases	<p>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 <i>minimum of one night</i>.</p> <p><u>Inclusion</u></p> <ul style="list-style-type: none">- 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 <p><u>Exclusion</u></p> <ul style="list-style-type: none">- Day cases- Outpatient cases (including emergency department visits)
Day cases	<p>A day-care discharge is the release of a patient who was <i>formally admitted</i> in a hospital for receiving <i>planned</i> medical and paramedical services, and who was <i>discharged on the same day</i>.</p> <p><u>Inclusion</u></p> <ul style="list-style-type: none">- Non-admitted patients who were subsequently admitted for day-care <p><u>Exclusion</u></p> <ul style="list-style-type: none">- Inpatient cases- Outpatient cases (including emergency department visits)- Patients admitted as day-care patients but who have been retained overnight due to complication

<p>Hospital (inpatient) bed-days by diagnostic categories</p>	<p>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 <i>stays overnight</i> in a hospital.</p> <p>Inclusion</p> <ul style="list-style-type: none"> - 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 <p>Exclusion</p> <ul style="list-style-type: none"> - Day cases <p>Notes</p> <ul style="list-style-type: none"> - 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). - 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
<p>In-patient average length of stay of in-patients (ALOS)</p>	<p>Average length of stay (ALOS) is calculated by dividing the number of hospital days (or bed-days or in-patient days) from the date of admission in an in-patient institution (date of discharge minus date of admission) by the number of discharges (including deaths) during the year.</p>

ISHMT: International Classification for Hospital Morbidity Tabulation. This shortlist for statistical comparison of hospital activity analysis was adopted in 2005 by Eurostat, the OECD (Organisation for Economic Co-operation and Development) and the WHO-FIC (Family of International Classifications) Network.

Country specific notes

[Belgium](#), [Bulgaria](#), [Czechia](#), [Denmark](#), [Germany](#), [Estonia](#), [Ireland](#), [Greece](#), [Spain](#), [France](#), [Croatia](#), [Italy](#), [Cyprus](#), [Latvia](#), [Lithuania](#), [Luxembourg](#), [Hungary](#), [Malta](#), [Netherlands](#), [Austria](#), [Poland](#), [Portugal](#), [Romania](#), [Slovenia](#), [Slovakia](#), [Finland](#), [Sweden](#), [Iceland](#), [Liechtenstein](#), [Norway](#), [Switzerland](#), [Montenegro](#), [North Macedonia](#), [Albania](#), [Serbia](#), [Turkey](#), [United Kingdom](#)

Belgium

Hospital discharges by diagnostic categories

Source of data: The Federal Public Service of Health, Food Chain Safety and Environment, Directorate 1 - Minimal Clinical Data. The website for the Minimal Hospital Data is <http://www.health.belgium.be/eportal/Healthcare/Healthcarefacilities/Registrationsystems/index.htm>.

Data from the yearly survey held by the directorate - website:

<http://www.health.belgium.be/eportal/Healthcare/Healthcarefacilities/Registrationsystems/Hospitalstatistics/index.htm>.

Reference period: During the year.

Coverage:

- The Federal Public Service of Health, DGGS "Healthcare" is responsible for the registration of the Minimal Hospital Data.
- Hospital days for inpatients concern only acute admissions in acute hospitals (with at least 1 overnight stay in the hospital).
- Patient data in psychiatric hospitals are NOT included.
- Data refer to inpatients with a LOS \leq 90 days and all sex (man, woman, changed, unknown).
- Deceased patients are included.

Break in time series:

- Diseases of the nervous system, ISHMT codes 0600 and 0605: the ICD-9-CM 327, 338 and 339 did not exist in the 2005 codebook. These codes do exist in the 2009 codebook which was used for the years from 2009. This explains the data change between 2008 and 2009.
- Symptoms, signs and abnormal clinical and laboratory findings, n.e.c., ISHMT codes 1800 and 1804: as of 2009 (when the ICD-9-Code 327 has been included and used), the code 780.5 is no longer used. This explains the data change between 2008 and 2009.
- Liveborn infants according to place of birth ("healthy newborn babies") (V30-V39 codes in acute admissions), ISHMT code 2103: Admissions in Maternity and Neonatal Intensive Care are excluded in our selection. This explains the small figures in inpatient cases and hospital days for inpatients until 2007.
 - The 2007 total of newborns in all hospital divisions (not only acute) is 120276 newborn babies (inpatients), 577 newborn babies (daycases) & 665193 hospital days for newborn babies.
 - The 2006 total of newborns in all hospital divisions (not only acute) is 122769 newborn babies (inpatients), 613 newborn babies (day cases) & 696259 hospital days for newborn babies.
 - The 2005 total of newborns in all hospital divisions (not only acute) is 119506 newborn babies (inpatients), 633 newborn babies (day cases) & 688464 hospital days for newborn babies.
 - The 2004 total of newborns in all hospital divisions (not only acute) is 117189 newborn babies (inpatients), 575 newborn babies (day cases) & 673842 hospital days for newborn babies.
 - The 2003 total of newborns in all hospital divisions (not only acute) is 113809 newborn babies (inpatients), 515 newborn babies (day cases) & 673700 hospital days for newborn babies.
 - The 2002 total of newborns in all hospital divisions (not only acute) is 112802 newborn babies (inpatients), 366 newborn babies (day cases) & 679198 hospital days for newborn babies.

- The 2001 total of newborns in all hospital divisions (not only acute) is 114804 newborn babies (inpatients), 355 newborn babies (day cases) & 695248 hospital days for newborn babies.
 - The 2000 total of newborns in all hospital divisions (not only acute) is 110316 newborn babies (inpatients), 280 newborn babies (day cases) & 671248 hospital days for newborn babies.
- All causes, ISHMT code 0000: Break in 2005 due to inclusion of newborn babies in the total number of discharges.
- Due to the transition of codification system ICD-9-CM to ICD-10-CM during the year 2015, no data are available for the year 2015, considered as a transition year for the hospitals.
- From 2016 onwards, the ICD-10-BE classification has been used to codify all hospital discharge data, explaining the break in many of the time series.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **The Federal Public Service of Health, Food Chain Safety and Environment**, Directorate 1 - Minimal Clinical Data. The website for the Minimal Hospital Data is <http://www.health.belgium.be/eportal/Healthcare/Healthcarefacilities/Registrationsystems/index.htm>.

Data from the yearly survey held by the directorate - website:

<http://www.health.belgium.be/eportal/Healthcare/Healthcarefacilities/Registrationsystems/Hospitalstatistics/index.htm>.

Reference period: During the year.

Coverage:

- The Federal Public Service of Health, DGGS "Healthcare" is responsible for the registration of the Minimal Hospital Data.
- Hospital days for inpatients concern only acute admissions in acute hospitals (with at least 1 overnight stay in the hospital).
- Patient data in psychiatric hospitals are not included.
- Long lasting stays are excluded (more than 6 months or 184 days).
- Deceased patients are included.

Break in time series:

- Diseases of the nervous system, ISHMT codes 0600 and 0605: the ICD-9-CM 327, 338 and 339 did not exist in the 2005 codebook. These codes do exist in the 2009 codebook which was used for the years from 2009. This explains the data change between 2008 and 2009.
- Symptoms, signs and abnormal clinical and laboratory findings, n.e.c., ISHMT codes 1800 and 1804: as of 2009 (when the ICD-9-Code 327 has been included and used), the code 780.5 is no longer used. This explains the data change between 2008 and 2009.
- Liveborn infants according to place of birth ("healthy newborn babies") (V30-V39 codes in acute admissions), ISHMT code 2103: Admissions in Maternity and Neonatal Intensive Care are excluded in our selection. This explains the small figures in inpatient cases and hospital days for inpatients until 2007.

- The 2007 total of newborns in all hospital divisions (not only acute) is 120276 newborn babies (inpatients), 577 newborn babies (daycases) & 665193 hospital days for newborn babies.
- The 2006 total of newborns in all hospital divisions (not only acute) is 122769 newborn babies (inpatients), 613 newborn babies (day cases) & 696259 hospital days for newborn babies.
- The 2005 total of newborns in all hospital divisions (not only acute) is 119506 newborn babies (inpatients), 633 newborn babies (day cases) & 688464 hospital days for newborn babies.

- The 2004 total of newborns in all hospital divisions (not only acute) is 117189 newborn babies (inpatients), 575 newborn babies (day cases) & 673842 hospital days for newborn babies.
- The 2003 total of newborns in all hospital divisions (not only acute) is 113809 newborn babies (inpatients), 515 newborn babies (day cases) & 673700 hospital days for newborn babies.
- The 2002 total of newborns in all hospital divisions (not only acute) is 112802 newborn babies (inpatients), 366 newborn babies (day cases) & 679198 hospital days for newborn babies.
- The 2001 total of newborns in all hospital divisions (not only acute) is 114804 newborn babies (inpatients), 355 newborn babies (day cases) & 695248 hospital days for newborn babies.
- The 2000 total of newborns in all hospital divisions (not only acute) is 110316 newborn babies (inpatients), 280 newborn babies (day cases) & 671248 hospital days for newborn babies.

- All causes, ISHMT code 0000: Break in 2005 due to inclusion of newborn babies in the total number of discharges.

- Due to the transition of codification system ICD-9-CM to ICD-10-CM during the year 2015, no data are available for the year 2015, considered as a transition year for the hospitals.

- From 2016 onwards, the ICD-10-BE classification has been used to codify all hospital discharge data, explaining the break in many of the time series.

Bulgaria

Hospital discharges by diagnostic categories

Source of data: National Center for Public Health and Analysis at the **Ministry of Health**

Coverage: Number of in-patient cases includes discharged and deceased patients from hospitals
In 2016, with amendments of the national legislation, "Places for short stay" are introduced.

"Places for short stay" are places for carrying out certain medical diagnostic and treatment activities requiring a stay of the patient not longer than 12 hours."

This places are used mainly for activities in the field of medical oncology, radiotherapy psychiatry, dialysis treatment and etc.

The persons who had undergone such treatment on places for short stay are excluded from the Inpatient discharges.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: National Center for Public Health and Analysis at the **Ministry of Health**

Coverage: Number of in-patient cases includes discharged and deceased patients from hospitals

Czechia

Hospital discharges by diagnostic categories

Source of data: **Institute of Health Information and Statistics of the Czech Republic.** National Registry of Hospitalised Patients.

Reference period: Discharges during the year.

Methodology:

- Since 2011: The methodology was changed and follows the methodology of data transmitted to the WHO.

- 2010 and previous years: Data follow the previous OECD data collection.

Coverage:

- *Coverage by hospital type:* Data are from hospitals and specialised therapeutic institutes (all bedcare health establishments excluding balneologic institutes and convalescence homes for children).

- Hospitalised foreigners are included.

- *Multi-episode cases:* Multi-episode cases treated in one health care establishment have been combined into one discharge record.

- *Inpatient cases:* termination of one patient's stay in a hospital, including discharge to home, transfer to another institution or death.

- *Day cases:* cases with the same date of admission and discharge, excluding deaths or same-day transfers to another bed care health establishment. However, only patients registered as hospitalised patients are included, that is patients admitted to and discharged from a bed care department of a health care establishment.

- *Definition of main diagnosis:* Main diagnosis is defined as the main condition diagnosed at the end of the episode of health care, primarily responsible for the patient's need of treatment or examination.

Break in time series:

- Since 2019, a new method of compiling the data was applied (the compilation of individual hospitalization cases and the selection of the main diagnosis) with possible impact on results.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Institute of Health Information and Statistics of the Czech Republic.** National Registry of Hospitalised Patients.

Reference period: Discharges during the year.

Methodology:

- Since 2011: The methodology was changed and follows the methodology of data transmitted to the WHO.

- 2010 and previous years: Data follow the previous OECD data collection.

Coverage:

- *Coverage by hospital type:* Data are from hospitals and specialised therapeutic institutes (all bedcare health establishments excluding balneologic institutes and convalescence homes for children).

- Hospitalised foreigners are included.

- *Multi-episode cases:* Multi-episode cases treated in one health care establishment have been combined into one discharge record.

- *Inpatient cases:* termination of one patient's stay in a hospital, including discharge to home, transfer to another institution or death.

- *Day cases:* cases with the same date of admission and discharge, excluding deaths or same-day transfers to another bed care health establishment. However, only patients registered as hospitalised patients are included, that is patients admitted to and discharged from a bed care department of a health care establishment. Number of bed-days for day cases is not included.

- *Definition of main diagnosis:* Main diagnosis is defined as the main condition diagnosed at the end of the episode of health care, primarily responsible for the patient's need of treatment or examination.

Break in time series:

- Since 2011, bed-days which are longer than 700 days have been cut. This concerns mainly hospitalisations in psychiatric sanatoriums and explains in particular the decrease in ALOS for mental and behavioural disorders and Alzheimer's disease in 2011.
- Since 2019, a new method of compiling the data was applied (the compilation of individual hospitalization cases and the selection of the main diagnosis) with possible impact on results.

Denmark

Hospital discharges by diagnostic categories

Source of data: **The National Patient Register, Statens Serum Institut.**

Coverage:

- Data only cover the period 2001-2016.
- The register contains information about all public and private hospitals.
- All activities in hospitals are covered, regardless of insurance and citizenship.
- Multi-episode cases: The register contains department discharges. These are combined into hospital discharges, such that transfers within the same hospital are excluded.
- Day cases: Both inpatients and day cases have to be formally admitted. In this case, day cases have been defined as those contacts starting and ending the same day. Whether such duration was intended remains unknown.
- Main diagnosis: The primary reason for the contact. ICD-10 is used.
- 'Healthy newborns' are included.
- No information about external causes was included because the National Patient Registry uses its own system. There are few records in submitted data files with External Cause code, which likely are coding errors.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **National Board of Health, The National Patient Register.**

Germany

Hospital discharges by diagnostic categories

Source of data: **Federal Statistical Office**, Hospital statistics 2018 (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> or <http://www.gbe-bund.de>.

Reference period: During the year.

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.
- *Coverage by hospital type:* Data include discharges during a given calendar year from all types of hospitals (HP.1.1, 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 additionally include 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*:

- Patients with unknown diagnosis (9999) are included. Patients with unknown age and/or sex are included.
- From reporting year 2004, live-born infants according to place of birth coded with ICD-10 Z38 (ISHMT code 2103) and patients coded with ICD-10 D90 "Immunocompromisation after radiation, chemotherapy and other immunosuppressive measures" (ISHMT codes 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%).

- *Definition of main diagnosis*: The main diagnosis is defined as the condition diagnosed at the end of the hospitalization period, primarily responsible for the patient's need for treatment or examination at the hospital.

- *Other notes related to recording and diagnostic practices*: The implementation of the German DRG-System led to wide changes in the coding practice of the physicians especially concerning the diagnoses "complications during labour and delivery" (ISHMT code 1504), "single deliveries" (ISHMT code 1505) and "other delivery" (ISHMT code 1506).

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 additionally include 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.

- The strong increase in the number of discharges for "Single spontaneous delivery" (ISHMT code 1505) in 2014 is due to 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 inpatient cases 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.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Federal Statistical Office**, Hospital statistics 2018 (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> or <http://www.gbe-bund.de>.

Reference period: During the year.

Coverage:

- 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 bed-days during a given calendar year in 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 bed-days in general hospitals and mental health hospitals. As of reporting year 2003, data additionally include bed-days in prevention and rehabilitation facilities; however bed-days of these institutions with 100 or less than 100 beds are not included.

- *Missing records:* Bed-days in 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:*

- Patients with unknown diagnosis (9999) are included. Patients with unknown age and/or sex are included.
- From reporting year 2004, live-born infants according to place of birth coded with ICD-10 Z38 (ISHMT code 2103) and patients coded with ICD-10 D90 "Immunocompromisation after radiation, chemotherapy and other immunosuppressive measures" (ISHMT codes 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%).

- *Definition of main diagnosis:* The main diagnosis is defined as the condition diagnosed at the end of the hospitalization period, primarily responsible for the patient's need for treatment or examination at the hospital.

- *Other notes related to recording and diagnostic practices:* The implementation of the German DRG-System led to wide changes in the coding practice of the physicians especially concerning the diagnoses "complications during labour and delivery" (ISHMT code 1504), "single deliveries" (ISHMT code 1505) and "other delivery" (ISHMT code 1506).

Break in time series: Up to and including reporting year 2002, data only include bed-days in general hospitals and mental health hospitals. As of reporting year 2003, data additionally include bed-days in prevention and rehabilitation facilities; however bed-days 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.

Additional information:

- In German health statistics publications, the number of bed-days includes the number of inpatient cases as well as the number of day cases. Therefore the total number of bed-days in these publications is higher.

- 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

Hospital discharges by diagnostic categories

Source of data:

- **Ministry of Social Affairs**, Department of Health Information and Analysis, routinely collected aggregate hospital statistics.

- Since 1st January 2008: **National Institute for Health Development**, Department of Health Statistics. www.tai.ee.

Reference period: Calendar year.

Coverage:

- *Coverage by hospital type*: All hospitals (HP.1), public and private, are covered.
- *Missing records*: Estonia collects aggregated data on hospital discharges and day cases. Therefore the data cannot be presented in such detailed level as requested. Data collection at individual level is planned when nationwide E-health record is implemented.
- ICD-10 is used for data collection.
- *Inpatient cases*: Data on discharges are collected in two ways: 1) Discharges according to ICD-10 main chapters by sex and age groups include deceased patients but not bed-days; 2) Hospital discharges by selected ICD-10 subgroups/single diagnoses and corresponding bed-days.
- The complete ISHMT shortlist is not available for Estonia.
- Estonian age groups match to the requested age groups till the age of 25 years old. Starting from age of 25 years old the age groups are divided on a 10 years basis, and the last age group until 2006 is 75 years old and over and from 2007 85 years old and over.
- Discharges by diagnostic categories from hospital do not include cases transferred to another hospital (approximately 5% of cases and 6% bed days in 2019) or considered healthy, neither healthy newborns. Multi-episode cases are combined into one discharge record, except for transfers to the nursing bed profile – then a new case is registered. Approximately 6% of cases and 21% of bed days belong to nursing cases in 2019 but we are not able to estimate the proportion of multiple cases from them. Underestimation of cases transferred to another hospital and overestimation of cases transferred to the nursing bed profile within the same hospital cancel each other out and do not cause a big deviation from real results.
- *Day cases*: persons admitted to hospital in the morning and leaving during the same day. Day-patients are admitted either to day care or to day surgery department. Some not planned cases could be treated in day care too if the patient is considered to leave in the evening. Recalculations have been done, so that all days are counted as separate day care cases.

Also data about day cases are collected in two ways: 1) Day cases according to ICD-10 main chapters by sex and age groups; 2) Day cases by selected ICD-10 subgroups/single diagnoses are collected without sex-age distribution.

Break in time series: Before 2005 day care did not include day care provided in hospitals' polyclinics. Since 2005 day care data include all day care cases (including hospitals polyclinics).

Notes: The data for hospital discharges/bed-days/ALOS by diagnostic categories (disaggregated data) and the data for inpatient discharges and ALOS (aggregated data) differentiate in the case of Estonia, as the data for discharges by diagnoses and the data for hospital aggregates are based on two separate statistical reports. The differences proceed from some methodological differences concerning cases which are included or excluded from the report. (*For more information see: [Estonian sources and methods under the section "Hospital aggregates: Inpatient care".](#)*)

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

- **Ministry of Social Affairs**, Department of Health Information and Analysis, routinely collected aggregate hospital statistics.
- Since 1st January 2008: **National Institute for Health Development**, Department of Health Statistics. www.tai.ee.

Reference period: Calendar year.

Coverage:

- *Coverage by hospital type*: All hospitals (HP.1), public and private, are covered.

- *Missing records*: Estonia collects aggregated data on hospital discharges. Therefore the data cannot be presented in such detailed level as requested. Data collection at individual level is planned when nationwide E-health record is implemented.
 - ICD-10 is used for data collection.
 - *Inpatient cases*: Data on discharges are collected in two ways: 1) Discharges according to ICD-10 main chapters by sex and age groups include deceased patients but not bed-days; 2) Hospital discharges by selected ICD-10 subgroups/single diagnoses and corresponding bed-days.
 - The complete ISHMT shortlist is not available for Estonia.
 - Estonian age groups match to the requested age groups till the age of 25 years old. Starting from 25 years old, the age groups are divided on a 10 year basis, and the last age group until 2006 is 75 years old and over, and from 2007 it is 85 years old and over. Therefore, the age-groups presented are 0-14 years old and 15 years old and over.
 - *Bed-day*: a day during which a person admitted as an in-patient is confined to a bed and in which the patient stays overnight in a hospital. The number of bed-days does not include bed-days of the deceased until 2004.
 - Healthy newborns are excluded.
- Break in time series: Before 2005, data do not include deceased person`s bed-days. Since 2005, hospital bed-days include bed-days of deceased cases, therefore the comparability of ALOS with previous years is affected.

Ireland

Hospital discharges by diagnostic categories

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).

Reference period: Data are based on the year of discharge.

Coverage:

Coverage by hospital type

- HIPE data covers all inpatients and daycases receiving curative and rehabilitative care in publicly funded acute hospitals in the State.
- 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. Detailed activity data for private hospitals is not available, however based on a the Health Ireland Survey 2017 it is estimated that approximately 25% 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 inpatients 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.

Day cases

- 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.

Notes related to recording and diagnostic practices

- The principal diagnosis is defined the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care. For more information see the HIPE data dictionary at http://www.hpo.ie/hipe/hipe_data_dictionary/HIPE_Data_Dictionary_2019_V11.1.pdf.
 - Data for 1995 to 2004 were classified using ICD-9-CM. All HIPE discharges from 2005 are now coded using ICD-10-AM (The Australian Modification of ICD-10 incorporating the Australian Classification of Health Interventions).
- Although the ISHMT is used for categorising diagnoses, there are still some minor changes in the classification of diagnoses. The HMT shortlist is based on ICD-9 and ICD-10 codes, but the classification used for diagnoses in HIPE was changed from ICD-9-CM to ICD-10-AM including the Australian Coding Standards. This means that for certain categories comparison with previous years is difficult.
- The Irish Coding Standards direct that Healthy Newborn Babies are not coded in HIPE. Therefore there are no inpatients or daycases in category 2103 [Liveborn infants according to place of birth]. 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/>.
 - From 2006 the HIPE system includes data on daycase patients admitted for dialysis in dedicated dialysis units. These episodes were previously excluded from HIPE. This has resulted in a substantial increase in the number of daycases in ISHMT category 2105 [Other factors influencing health status and contact with health services].
 - Note also that in 2006, batch coding was introduced to facilitate more complete coding of radiotherapy. This has resulted in an increase in the number of daycases in category 2104 [Other medical care (including radiotherapy and chemotherapy sessions)].
 - Note that in Ireland, codes from ISHMT category 1501 (Medical Abortions) include patients admitted to hospital with a complication following a legal abortion in another state.
- Break in time series: There is a break in the time series between 2004 and 2005 due to the change in classification systems from ICD-9-CM to ICD-10-AM in 2005.

Hospital (inpatient) bed-days by diagnostic categories

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).

Reference period: Data are based on the year of discharge.

Coverage:

Coverage by hospital type

- HIPE data covers all inpatients and daycases receiving curative and rehabilitative care in publicly funded acute hospitals in the State.
- 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. Detailed activity data for private hospitals is not available, however based on a the Health Ireland Survey 2017 it is estimated that approximately 25% 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 inpatients 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.

Day cases

- 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.

Notes related to recording and diagnostic practices

- The principal diagnosis is defined the diagnosis established after study to be chiefly responsible for occasioning the episode of admitted patient care. For more information see the HIPE data dictionary at http://www.hpo.ie/hipe/hipe_data_dictionary/HIPE_Data_Dictionary_2019_V11.1.pdf.

- Data for 1995 to 2004 were classified using ICD-9-CM. All HIPE discharges from 2005 are now coded using ICD-10-AM (The Australian Modification of ICD-10 incorporating the Australian Classification of Health Interventions).

Although the ISHMT is used for categorising diagnoses, there are still some minor changes in the classification of diagnoses. The HMT shortlist is based on ICD-9 and ICD-10 codes, but the classification used for diagnoses in HIPE was changed from ICD-9-CM to ICD-10-AM including the Australian Coding Standards. This means that for certain categories comparison with previous years is difficult.

- The Irish Coding Standards direct that Healthy Newborn Babies are not coded in HIPE. Therefore there are no inpatients or daycases in category 2103 [Liveborn infants according to place of birth]. 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/>.

- From 2006 the HIPE system includes data on daycase patients admitted for dialysis in dedicated dialysis units. These episodes were previously excluded from HIPE. This has resulted in a substantial increase in the number of daycases in ISHMT category 2105 [Other factors influencing health status and contact with health services].

- Note also that in 2006, batch coding was introduced to facilitate more complete coding of radiotherapy. This has resulted in an increase in the number of daycases in category 2104 [Other medical care (including radiotherapy and chemotherapy sessions)].

- Note that in Ireland, codes from ISHMT category 1501 (Medical Abortions) include patients admitted to hospital with a complication following a legal abortion in another state.

Break in time series: There is a break in the time series between 2004 and 2005 due to the change in classification systems from ICD-9-CM to ICD-10-AM in 2005.

Greece

Hospital discharges by diagnostic categories

Source of data: **National Statistical Service for Greece**, Division of Social Welfare and Health Statistics.

Coverage: Public and private hospitals of Greece.

There is a break in time series from 2013 and onwards due to technical improvements. More specifically, until 2012 the criterion of minimum one night of stay was not strictly covered and day cases of surgical procedures were also included. The data process was sampled until 2012 due to the large amount of data and limited resources. Moreover, from 2013 has changed from sampling to census.

- From 2013 ICD-10 is used.

- Inpatient cases: Same-day separations are excluded.

- ICD-9 is used (1975 version). However the National Statistical Service has grouped the discharges with a slightly different classification, as noted in the following table:

Morbidity	ICD-Code substituted (ICD-9)
Infectious and parasitic diseases	20-27, 30-41, 45-57, 60-66, 70-88, 90-104, 110-118,

	120-139
Malignant neoplasms	140-165, 170-175, 179-208, 210-239
Malignant neoplasm of colon, rectum, rectosigmoid junction and anus	153
Senile cataract	366
Otitis media	381-383
Ischaemic heart disease	411-414
Diseases of the respiratory system	463-466, 470-474, 478, 480-487, 491-494, 496, 500-508, 511, 519
Bronchitis, asthma and emphysema	491-493
Gastric, duodenal, peptic, ulcers	531-533
Inguinal and femoral hernia	550-553
Cholelithiasis	574, 575
Diseases of the musculoskeletal system and connective tissue	714, 716, 718, 720, 724-730, 735, 736, 739
Intervertebral disc disorders	720.2, 721-724

Deviation from the definition: Day cases are included until 2012.

Break in time series: 2013. There is a break in time series of hospital inpatient discharges from 2013 and onwards due to technical improvements. More specifically, until 2012 the criterion of minimum one night of stay was not strictly covered and day cases of surgical procedures were also included. The data process was sampled until 2012 due to the large amount of data and limited resources. Moreover, from 2013 has changed from sampling to census and the day cases were identified and excluded.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **National Statistical Service for Greece**, Division of Social Welfare and Health Statistics.

Coverage:

- Same-day separations are excluded.
- From 2013 ICD-10 is used.
- ICD-9 was used until 2012 (1975 version). However, the National Statistical Service has grouped the discharges with a slightly different classification, as noted in the following table:

Morbidity	ICD-Code substituted (ICD-9)	
Infectious and parasitic diseases	20-27, 30-41, 45-57, 60-66, 70-88, 90-104, 110-118, 120-139	
Malignant neoplasms	140-165, 170-175, 179-208, 210-239	
Malignant neoplasm of colon, rectum, rectosigmoid junction and anus	153	
Senile cataract	366	
Otitis media	381-383	
Ischaemic heart disease	411-414	
Diseases of the respiratory system	463-466, 470-474, 478, 480-487, 491-494, 496, 500-508, 511, 519	
Bronchitis, asthma and emphysema	491-493	
Gastric, duodenal, peptic, ulcers	531-533	
Inguinal and femoral hernia	550-553	
Cholelithiasis	574, 575	
Diseases of the musculoskeletal system and connective tissue	714, 716, 718, 720, 724-730, 735, 736, 739	
Intervertebral disc disorders	720.2, 721-724	

Break in time series: 2013. There is a break in time series from 2013 and onwards due to technical improvements. More specifically, until 2012 the criterion of minimum one night of stay was not strictly covered and day cases of surgical procedures were also included. The data process was sampled until 2012 due to the large amount of data and limited resources. Moreover, from 2013 has changed from sampling to census and the day cases were identified and excluded.

Spain

Source of data:

- *Inpatient cases:* **Instituto Nacional de Estadística** - INE (National Statistics Institute), Encuesta de Morbilidad Hospitalaria (Hospital Morbidity Survey).

http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176778&menu=ultiDatos&idp=1254735573175

Reference period: For *inpatient cases*, data as of December 31.

Coverage:

- *Coverage by hospital type, for inpatient cases:* full coverage (100%) from all hospitals (public, private and military).

- Data for ICD-9-CM codes V30-V39 (group 2103) are not available as they are not considered main diagnoses by the National Health System in Spain.

- ISHMT version 24/11/06 has been used for 2004-2006; ISHMT version 19/01/2008 has been used for 2007 (changes in groups 0300, 0302, 0900, 0902, 0904, 0911, 1001, 1306, 1307, 1410, 1507, 1508, 1800, 1804 and 2101 between this version and the previous one). ISHMT version 10/11/2008 has been used since 2008.

- From 2004, data are available at ICD-9-CM 4 digit level. For previous years, diagnostic categories included in ISHMT groups at 4-digit level have been estimated.

- *Inpatient cases:* A hospital discharge includes one night stay or longer in a hospital.

- *Definition of main diagnosis*: Main diagnosis is defined as the condition that caused admission into hospital, according to the criteria held by the clinical department or doctor who treated the patient, even though significant complications and even independent conditions arose during his/her stay.
- *Other notes related to recording and diagnostic practices*: The classification system used in Spain is ICD-9-CM until 2015. From 2016, the classification system used in Spain is ICD-10ES-CM, seven digit level.
- *Day cases*: The data collection started in 2004 (partial coverage gradually increasing from 85% in 2004). In 2011, 100% of major ambulatory surgeries in public hospitals are covered and data from acute care private hospitals have been included. The coverage of private hospitals has been increasing last five years: 113, 122, 165, 192 and 195 respectively. The number of day cases by diagnostic categories and the number of day cases by age groups may be different due to errors/missing information (e.g. gender not coded) in records.

Day cases

Source of Data: National Hospital Discharge Data Base – Registro de altas CMBD.

Coverage:

- *Coverage by hospital type, for day cases*: NHDDDB cover all HP1.1/2 (acute care hospitals) of the public sector and 90% for the private hospital discharges - psychiatric and long term care hospitals are not included except if they are forming a hospital complex.
- *Content*: Some medical cases of the Day Cases are not included.
- *Criteria*: All cases are based on treatment episodes (hospital admissions, day case contact).
- *Day cases*: Day cases are previously defined as the formally admitted for surgical or medical planned treatment.
- Medical day cases are partially covered.
- *Definition of main diagnosis*: Main diagnosis is the condition determined as principal cause of the episode of hospitalisation.
- *Other notes related to recording and diagnostic practices*: Coding is performed by both doctors, nurses or technical personnel specially trained.

Break in time series:

- In 2018, the strong increase for “Hypertensive diseases” and, in parallel, the strong decrease for “Heart failure” can be explained by a transfer of cases due to an improvement in the classification process in 2018. The “Heart failure” code usually reflects lack of information or accuracy in the classification of the diagnosis.
- Break in 2017: The same classification as in 2016 (ICD-10ES-CM) is used but the data is presented grouped in four digit level instead of ISHMT groups.
- Break in 2016: the variations in data between 2015 and 2016 are mainly due to the change of classification (from ICD-9-CM to ICD-10ES-CM) as well as the reorganizing of hospital' management process and modification of editing and imputation systems carried out as a result of this change of classification.
- Since 2016, there are some data in group 2103 (the code Z38 is available if considered by hospital. This code is considered as main diagnosis by the National Health System in Spain since the launch of the new classification system in 2016).
- From 2005, there is a break in group 1304 (inclusion of ICD-9-CM codes 727.1, 728.4) and in group 1309.
- From 2001, there is a break in the category 1803 (Unknown causes) due to codification changes (inclusion of ICD-9-CM codes 726, 727.0, 727.2-727.9) and the group 1310 (ICD-9 codes 726-727 removed).

Notes:

- In 2013 and 20-1415, the differences between the total number of discharges and the sum of main diagnostic groups are rounding errors, due to the use of a big sample and weight factors.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

- *Inpatient cases*: **Instituto Nacional de Estadística** - INE (National Statistics Institute), Encuesta de Morbilidad Hospitalaria (Hospital Morbidity Survey).

<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t15/p414&file=inebase&L=0>.

Reference period: For *inpatient cases*, data as of December 31.

Coverage:

- *Coverage by hospital type, for inpatient cases*: full coverage (100%) from all hospitals (public, private and military).
- Data for ICD-9-CM codes V30-V39 (group 2103) are not available as they are not considered main diagnoses by the National Health System in Spain.
- ISHMT version 24/11/06 has been used for 2004-2006; ISHMT version 19/01/2008 has been used for 2007 (changes in groups 0300, 0302, 0900, 0902, 0904, 0911, 1001, 1306, 1307, 1410, 1507, 1508, 1800, 1804 and 2101 between this version and the previous one). ISHMT version 10/11/2008 has been used since 2008.
- From 2004, data are available at ICD-9-CM 4 digit level. For previous years, diagnostic categories included in ISHMT groups at 4-digit level have been estimated.
- *Inpatient cases*: A hospital discharge includes one night stay or longer in a hospital.
- *Definition of main diagnosis*: Main diagnosis is defined as the condition that caused admission into hospital, according to the criteria held by the clinical department or doctor who treated the patient, even though significant complications and even independent conditions arose during his/her stay.
- *Other notes related to recording and diagnostic practices*: The classification system used in Spain is ICD-9-CM until 2015. From 2016, the classification system used in Spain is ICD-10ES-CM, seven digit level.

Break in time series:

- Break in 2016: the variations in data between 2015 and 2016 are mainly due to the change of classification (from ICD-9-CM to ICD-10ES-CM) as well as the reorganizing of hospital' management process and modification of editing and imputation systems carried out as a result of this change of classification.
- Since 2016, there are some data in group 2103 (the code Z38 is available if considered by hospital. This code is considered as main diagnosis by the National Health System in Spain since the launch of the new classification system in 2016).
- From 2005, there is a break in group 1304 (inclusion of ICD-9-CM codes 727.1, 728.4) and in group 1309.
- From 2001, there is a break in the category 1803 (Unknown causes) due to codification changes (inclusion of ICD-9-CM codes 726, 727.0, 727.2-727.9) and the group 1310 (ICD-9 codes 726-727 removed).

Note: The overall increase in the average length of stay (ALOS) since 2016 has been mainly due to the increase in the average stay in psychiatric and other long-term care hospitals. Due to the fact that the average stay in this type of hospitals is highly variable year over year, the procedures for validation and control of the data have been improved in order to avoid errors and to improve the quality of data year over year. As expected, this affects particularly certain diseases such as Mental disorders, Alzheimer's disease, etc. The ALOS remains stable and without significant variations compared to previous years in community or general-purpose hospitals.

France

Hospital discharges by diagnostic categories

Source of data: National discharges databases from the "programme de médicalisation des systèmes d'information (PMSI)" managed by the national agency called « ATIH ». Calculations were performed by the French **Ministère des Solidarités et de la Santé, Drees** (Direction de la recherche, des études, de l'évaluation et des statistiques).

Reference period: Calendar year.

Coverage:

- French data cover **residents** of Metropolitan France and overseas départements (Guadeloupe, Martinique, French Guyana, Réunion Island and from 2015 Mayotte) and collectivities, who were hospitalised in the public and private hospitals of metropolitan France and overseas French départements. They refer to hospitalisations (and not to patients) in the units delivering acute care (in medicine, surgery, gynecology and obstetrics: MCO) and, from 2016, post-acute/rehabilitative care and psychiatric care. The national database contains all inpatient hospitalisations, including healthy newborn babies and day cases, except long term care and iterative care such as haemodialysis, chemotherapy and radiotherapy.
- Non-resident patients are excluded.
- In 1997, stays are linked to the region of the patient's hospitalisation. Since 1998, they are linked to the region of the patient's place of residence.
- *Coverage by hospital type:* Data cover all acute care hospitals (public and private). Excluded hospitals are long term care hospitals and nursing facilities during the whole period; psychiatric hospitals and post-acute or rehabilitation hospitals have been excluded until 2015 and army hospitals until 2008. The data from military hospitals are added since 2009 and data from psychiatric hospitals and rehabilitative or post-acute care hospitals, since 2016.
- *Missing records:* Completeness is 100% since 1997.
- *Multi-episode cases:* Even if the patient has been in several medical units during their stay without leaving the hospital this constitutes a single stay.
- *Inpatient cases:* Data refer to the stays with full hospitalisation (i.e. at least one night). Same-day separations are excluded except cases of death or transfer in another hospital (inpatient cases include patients discharged as dead or transferred, whatever the length of stay). Planned day cases are excluded.
- *Day cases:* Day cases are identified by a special index flagging planned day cases. Patients dead or transferred in another hospital on the admission day are excluded. In post-acute/rehabilitative care and in psychiatric care, an administrative day-care stay can imply several days of attendance (without night), unlike in acute care where one day-care discharge= one day (without night). Thus, for post-acute/rehabilitative and psychiatric care, the numbers of attendance days are reported (which is different from the numbers of administrative discharge).
- *Main diagnosis:* Until 2008, the main diagnosis is the one that uses most of the medical effort in the course of the stay (i.e. uses most resources). Since 2009, determined at the end of the stay, the main diagnosis is the health condition responsible for the hospitalisation.
- *Other notes related to recording and diagnostic practices:*
 - Pooling the hospital stays strictly follows the ISHMT Short List. When the ICM10 permits to code either manifestation (*) or etiology (†) of the pathology, the manifestation code was used.
 - Since 2002 only suicide attempts have been recorded out of all External Causes.
 - Since 2006, additional ICD10 codes have been allocated to J09 (Proved avian flu): Group 1001; O94 (Complications after-effects of pregnancy, delivery and/or puerperium): Group 1508; U04 (Severe Acute Respiratory Syndrome - SARS): Group 1804.
 - Since 2010, the number 0 for "Other delivery" (ISHMT code 1506) is related to changes in coding guidelines introduced by the version 11 of the "classification des groupes homogènes de malades" (GHM). The figure previously counted in this category is now included in "Complications of pregnancy and labor DURING delivery". For the "sequelae of injuries, poisoning and external

causes" (ISHMT code 1910), the methodological guide indicates that in case of sequelae, the code chosen for "main condition" must be the one that designates the nature of sequels themselves, to which can be added codes "Sequelae of ...". This is probably what explains the significant decrease since 1997 and the number zero since 2010.

- From 2014, Haemorrhoids ICD10 code has been changed by WHO (category K64 instead of I84) with, consequently, change in allocation of ISHMT short list code: 1113 instead of 0911.

Break in time series:

- As of 2009, army hospitals have been included, and the definition of primary diagnosis has changed. The primary diagnosis is now "the health problem which motivated the admission of the patient, determined at the end of the stay" (see the methodological guide from ATIH at <http://www.atih.sante.fr/openfile.php?id=2741>).

- Hospital of French overseas department "Mayotte" is included in French data from 2015.

- Data from psychiatric and rehabilitative or post-acute care hospitals have been included from 2016. This inclusion mostly affects the following ISHMT categories: 0500, 0501, 0502, 0503, 0504, 0506, 1800, 1803, 2100, 2104, 2105 and 0000 (all causes).

- In 2016, there is also a break for the ISHMT categories 0902 and 0903, due to the reallocation of myocardial infarctions without ST-elevation (NSTEMI), previously included in ISHMT category 0902 and moved to 0903 as of 2016.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: National discharges databases from the "programme de médicalisation des systèmes d'information (PMSI)" managed by the national agency called « ATIH ». Calculations were performed by the French **Ministère des Solidarités et de la Santé, Drees** (Direction de la recherche, des études, de l'évaluation et des statistiques).

Reference period: calendar year.

Coverage:

- French data cover **residents** of Metropolitan France or overseas Départements (Guadeloupe, Martinique, French Guyana and Réunion Island and from 2015 Mayotte) and collectivities, who were hospitalised in the public and private hospitals of metropolitan France and overseas French départements; They refer to hospitalisations (and not to patients) in the units delivering acute care (in medicine, surgery, gynecology and obstetrics: MCO) and, from 2016, post-acute or rehabilitative care and psychiatric care. Database contains all inpatient hospitalisations including those of healthy newborn babies, except long-term care and iterative care such as haemodialysis, chemotherapy and radiotherapy.

- In 1997, stays are linked to the region of the patient's hospitalisation. Since 1998, they are linked to the region of the patient's place of residence.

- Non-resident patients are excluded.

- *Coverage by hospital type:* Excluded hospitals: long term care hospitals and nursing facilities during the whole period; army hospitals until 2008; and psychiatric hospitals and post-acute/rehabilitation hospitals until 2015. Data from military hospitals are added since 2009 and data from psychiatric hospitals and post-acute/rehabilitation hospitals since 2016.

- *Missing records:* Completeness is 100% since 1997.

- *Multi-episode cases:* Even if the patient has been in several medical units during their stay without leaving the hospital this constitutes a single stay.

- *Inpatient cases:* Data refer to the stays with full hospitalisation (i.e. at least one night). Same-day discharges are excluded, except in case of death or transfer in another hospital.

- *Main diagnosis:* Until 2008, the main diagnosis is the one that uses most of the medical effort in the course of the stay (i.e. uses most resources). Since 2009, determined at the end of the stay, the main diagnosis is the health condition responsible for the hospitalisation.

- *Other notes related to recording and diagnostic practices:*

- Pooling the hospital stays strictly follows the ISHMT Short List. When the ICM10 permits to code either manifestation (*) or etiology (†) of the pathology, the manifestation code was used.
- Since 2002 only suicide attempts have been recorded out of all External Causes.
- Since 2006, additional ICD10 codes have been allocated to: J09 (Proved avian flu): Group 1001; O94 (Complications after-effects of pregnancy, delivery and/or puerperium): Group 1508; U04 (Severe Acute Respiratory Syndrome - SARS): Group 1804.
- Since 2010, the number 0 for "Other delivery" (ISHMT code 1506) is related to changes in coding guidelines introduced by the version 11 of the "classification des groupes homogènes de malades" (GHM). The figure previously counted in this category is now included in "Complications of pregnancy and labor DURING delivery". For the "sequelae of injuries, poisoning and external causes" (ISHMT code 1910), the methodological guide indicates that in case of sequelae, the code chosen for "main condition" must be the one that designates the nature of sequels themselves, to which can be added codes "Sequelae of ...". This is probably what explains the significant decrease since 1997 and the number zero since 2010.
- From 2014, Haemorrhoids ICD10 code has been changed by WHO (category K64 instead of I84) with, consequently, change in allocation of ISHMT short list code: 1113 instead of 0911.

Break in time series:

- As of 2009, army hospitals have been included, and the definition of primary diagnosis has changed. The primary diagnosis is now "the health problem which motivated the admission of the patient, determined at the end of the stay" (see the methodological guide from ATIH at <http://www.atih.sante.fr/openfile.php?id=2741>).
- hospitalizations in the French overseas department "Mayotte" are included in French data from 2015.
- Data from psychiatric and rehabilitative or post-acute care hospitals have been included from 2016. This inclusion mostly affects the following ISHMT categories: 0500, 0501, 0502, 0503, 0504, 0506, 1800, 1803, 2100, 2104, 2105 and 0000 (all causes).

Croatia

Hospital discharges by diagnostic categories

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

Coverage: Croatian HDDB covers all in-patient institutions in the country (including private hospitals), except prison hospital

Data on people hospitalized for treatment in health service's hospital-type health facilities (hospitals): institution, ward, patient's first and last name, sex, age, population identification number, place of residence address, settlement of residence code, foreign country (for foreign nationals), employment status, occupation, branch of industry, length of treatment, main diagnosis at discharge from institution (by 4-digit ICD-10 code), external cause of injury, mode of discharge, medical history number, code of all surgical operations and procedures during this hospitalization; NHDDB includes all in-patient discharges and day-cases (uninsured patients, foreigners). Since 2002 discharges for rehabilitation, birth, healthy newborns and abortion are included.

When patients are transferred among departments in the same hospital, transfers are not recorded as a new admission/discharge; only transfers to another hospital are recorded as a new admission/discharge.

HDD data file includes day-cases which are defined by WHO rules. In year 2007 and earlier they were identified by the same admission and discharge dates. Since 2008 hospital discharge records include the special identification of day cases, which was not available earlier. During one episode of day hospital treatment, each patient's arrival at the day hospital is recorded.

Until 1st July 2008, data on day cases were not officially collected as such in hospital discharge database – some hospitals sent records with same admission and discharge date, but they were not officially required to register day cases for hospital discharge database. On 1st July 2008 official collection of data on day cases started, however the first six months (1st July -31 December 2008) were considered as pilot phase as only very limited number of hospitals was able to provide day case data as requested. In 2009, full-size data collection on day cases began. This explains the large increase in number of day cases in year 2009. However, even in 2009 several hospitals did not provide data on day cases.

Haemodialysis cases and inpatient treatment episodes in HP.2 and HP.3 institutions are not included.

Hospital (inpatient) bed-days by diagnostic categories

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

Coverage: Croatian HDDDB covers all in-patient institutions in the country (including private hospitals), except prison hospital

Data on people hospitalized for treatment in health service's hospital-type health facilities (hospitals): institution, ward, patient's first and last name, sex, age, population identification number, place of residence address, settlement of residence code, foreign country (for foreign nationals), employment status, occupation, branch of industry, length of treatment, main diagnosis at discharge from institution (by 4-digit ICD-10 code), external cause of injury, mode of discharge, medical history number, code of all surgical operations and procedures during this hospitalization.

NHDDDB includes all in-patient discharges and day-cases (uninsured patients, foreigners, and military staff). Since 2002 discharges for rehabilitation, birth, healthy newborns and abortion are included.

When patients are transferred among departments in the same hospital, transfers are not recorded as a new admission/discharge; only transfers to another hospital are recorded as a new admission/discharge.

HDD data file includes day-cases which are defined by WHO rules. In year 2007 and earlier they were identified by the same admission and discharge dates. Since 2008 hospital discharge records include the special identification of day cases, which was not available earlier. During one episode of day hospital treatment, each patient's arrival at the day hospital is recorded.

Until 1st July 2008, data on day cases were not officially collected as such in hospital discharge database – some hospitals sent records with same admission and discharge date, but they were not officially required to register day cases for hospital discharge database. On 1st July 2008 official collection of data on day cases started, however the first six months (1st July -31 December 2008) were considered as pilot phase as only very limited number of hospitals was able to provide day case data as requested. In 2009, full-size data collection on day cases began. This explains the large increase in number of day cases in year 2009. However, even in 2009 several hospitals did not provide data on day cases.

Haemodialysis cases and inpatient treatment in HP.2 and HP.3 institutions are not included.

Italy

Hospital discharges by diagnostic categories

Source of data:

- The data source is the Ministry of Health - General Directorate of Health Planning. National Hospital Discharge Data Base (NHDDDB) has made up of hospital activity for each year.

Annually the competent Ministry Office publishes the "Rapporto annuale sull'attività di ricovero ospedaliero – Dati SDO", containing a lot of information about the hospital admissions. All these publications are available on the Ministry website, at the following address:

http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=1237&area=ricoveriOspedalieri&menu=vuoto.

Scheda di Dimissione Ospedaliera (SDO) is the full original title of the NHDDB. More information about SDO can be found at the following website:

http://www.salute.gov.it/portale/temi/p2_4.jsp?lingua=italiano&tema=Assistenza,%20ospedale%20e%20territorio&area=ricoveriOspedalieri.

Coverage:

- *Coverage by hospital type*: The national hospital discharge database (NHDDB) covers the following hospital institutions, which are classifiable as HP.1.1: Hospital Agencies, General hospitals, University hospitals and HP.1.3 Specialty hospitals (like neurological, cancer, orthopaedic, paediatric hospitals). Military hospitals are not included (it is not possible to estimate their total capacity). Psychiatric hospitals and Substance abuse hospitals do not exist in Italy. At hospital level the psychiatric curative care is treated in wards of general hospitals (HP.1.1), such as psychiatric wards and infantile neuropsychiatric wards. Besides there are other residential institutions for psychiatric patients and substance abuse.

- *Missing records*: The NHDDB includes all inpatients and day cases in covered hospitals. Outpatient cases are not included in the NHDDB. Data exclude some discharge records if some important information is lacking (e.g. the ward and the type of discharge - inpatient or day case) and if the length of stay is longer than 365 days.

(in 2018 about 0,04%).

- Discharges with ICD-9-CM main diagnosis codes included in [V30-V39] "Liveborn infants according to type of birth", with age > 0 and discharges with ICD-9-CM main diagnosis codes included in [760-779] "Certain conditions originating in the perinatal period", with age > 4 have been processed for the HDD file and they are included into the ISHMT code "1803" "Unknown and unspecified causes of morbidity (incl. those without a diagnosis)".

- *Multi-episode cases*: The NHDDB includes multi-episode cases, combined into one discharge record in several day case discharges: treatments for day cases may last either only one day or more days in case of a cycle of treatments, such as radiotherapy or chemotherapy. The number of presence days for day case discharges is recorded in the NHDDB.

- *Day cases*: The hospital discharge data files include day cases: these cases do not stay overnight in hospital. A special index flag identifies all the day cases.

- *Definition of main diagnosis*: The main diagnosis is identified at the hospital discharge and it must be the main reason for the hospital treatment and care. If there were several main diagnoses, the one requiring more resources must be reported as the main diagnosis. Neoplasia must be indicated as main diagnosis, unless the hospital episode is finalized for radio or chemotherapy.

- *Other notes related to recording and diagnostic practices*: The classification system used for the NHDDB is ICD-9-CM. Starting from the year 2010, other information are collected for each hospital discharge, such as level of education, election admission date, priority class and external cause in case of traumatism. For this last information the "E" codes of the ICD-9-CM classification were introduced. External cause codes are not included in the hospital discharge data files.

Break in time series:

- The ISHMT version 2008-01-19 is applied from 2003 to 2005. The ISHMT version 2008-11-10 is applied since 2006.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

- The data source is the Ministry of Health - General Directorate of Health Planning. National Hospital Discharge Data Base (NHDDB), has made up of hospital activity for each year.

Annually the competent Ministry Office publishes the "Rapporto annuale sull'attività di ricovero ospedaliero – Dati SDO", containing a lot of information about the hospital admissions. All these

publications are available on the Ministry website, at the following address:

http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=1237&area=ricoveriOspedali&menu=vuoto.

Scheda di Dimissione Ospedaliera (SDO) is the full original title of the NHDDB. More information about SDO can be found at the following website:

http://www.salute.gov.it/portale/temi/p2_4.jsp?lingua=italiano&tema=Assistenza,%20ospedale%20e%20territorio&area=ricoveriOspedali

Coverage:

- *Coverage by hospital type:* The national hospital discharge database (NHDDB) covers the following inpatient institutions, which are classifiable as HP.1: Hospital Agencies, General hospitals, University hospitals and Specialty hospitals (like neurological, cancer, orthopaedic, paediatric hospitals). Military hospitals are not included (it is not possible to estimate their total capacity). Psychiatric hospitals and Substance abuse hospitals do not exist in Italy. At hospital level the psychiatric curative care is treated in wards of general hospitals (HP.1.1), such as psychiatric wards and infantile neuropsychiatric wards. Besides there are other residential institutions for psychiatric patients and substance abuse.

- *Missing records:* The NHDDB includes all inpatients and day cases in covered hospitals. Outpatient cases are not included in the NHDDB. Data exclude some discharge records if some important information is lacking (e.g. the ward and type of hospital, the type of discharge - inpatient or day case) and if the length of stay is longer than 365 days. - *Multi-episode cases:* The NHDDB includes multi-episode cases, combined into one discharge record in several day case discharges: treatments for day cases may last either only one day or more days in case of a cycle of treatments, such as radiotherapy or chemotherapy. The number of presence days for day case discharges is recorded in the NHDDB.

- *Day cases:* The hospital discharge data files include day cases: these cases do not stay overnight in hospital. A special index flag identifies all the day cases.

- *Definition of main diagnosis:* The main diagnosis is identified at the hospital discharge and it must be the main reason for the hospital treatment and care. If there were several main diagnoses, the one requiring more resources must be reported as the main diagnosis. Neoplasia must be indicated as main diagnosis, unless the hospital episode is finalized for radio or chemotherapy.

- *Other notes related to recording and diagnostic practices:* The classification system used for the NHDDB is ICD-9-CM. Starting from the year 2010, other information are collected for each hospital discharge, such as level of education, election admission date, priority class and external cause in case of traumatism. For this last information the "E" codes of the ICD-9-CM classification were introduced. External cause codes are not included in the hospital discharge data files.

Break in time series:

- The ISHMT version 2008-01-19 is applied from 2003 to 2005. The ISHMT version 2008-11-10 is applied since 2006.

Cyprus

Hospital discharges by diagnostic categories

Data owner: The register owner is the Ministry of Health. CYSTAT handles the data sent from the IT department of the Ministry of Health.

Source of data: **Statistical Service of Cyprus**, Source: "In-patients' Discharges", Public sector, Administrative Sources

Reference period: the reference year

Coverage:

In-patient: A person who has gone through the full admission procedure in one of the general/rural hospitals and for whom a "patient's file" has been made and remained at the hospital for treatment

for at least one night. An infant born in hospital is not counted as a separate in-patient, unless treated as a "special care baby"(see below the deviation of the definition).

Non-residents are included in the HDD file, as well as Turkish Cypriots living in the area non controlled by the Government and who are eligible for free health care in the medical institutions of the public sector. No variable exists in order to distinguish the cases according to the permanent residence.

Data covers only discharges from the public sector medical institutions, i.e. General and Rural Hospitals and Mental Health Hospital.

Discharge: The conclusion of a period of in-patient care, irrespective of whether the patient returned home, was sent to another hospital, left or taken against medical advice or died. Data does not relate to individual records. This means that a single patient may therefore account for more than one discharge during the year.

Day-case: Patients admitted and discharged on the same day.

Records with missing diagnosis have been assigned code "-1".

If a patient has been admitted in one department e.g. general medicine and has been moved to another department during his stay in hospital, he is only recorded once, under the department he is discharged from.

If a patient was admitted to one hospital and was transferred to another hospital without firstly being discharged from the first, then only the hospital where he was officially discharged from is recorded.

Deviation from the definition:

Information on discharges refers to public sector hospitals only.

Healthy Newborn Babies (Z38): Up to 2010 they are completely excluded from the discharges. From 2011 onwards, healthy newborns are included only as regards the deliveries taking place in Ammochostos General Hospital. These records are included in the discharges and they have been taken into account in the calculation of the bed occupancy rate, as well as the corresponding "beds". From 2012 up to 2015, data does not include data from the Mental Health Hospital.

The discharges from the Bank of Cyprus Oncology Centre and the Cyprus Institute of Neurology and Genetics, are not available in the form of raw data, therefore they are not included in the HDD file. However, the rates to be calculated from the HDD file would be different from the rates presented on the hospital aggregates, that have been calculated including the figures referring to these 2 hospitals.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: The IT systems of all public sector hospitals, Register "In-patients' Discharges", Public sector, Administrative Sources.

Reference period: Inpatients discharged during the reference year.

Coverage:

In-patient: A person who has gone through the full admission procedure in one of the general/rural hospitals and for whom a "patient's file" has been made and remained at the hospital for treatment for at least one night. An infant born in hospital is not counted as a separate in-patient, unless treated as a "special care baby".

Discharge: The conclusion of a period of in-patient care, irrespective of whether the patient returned home, was sent to another hospital, left or taken against medical advice or died. Data does not relate to individual records. This means that a single patient may therefore account for more than one discharge during the year.

Records with missing diagnosis have been assigned code "-1".

If a patient has been admitted in one department e.g. general medicine and has been moved to another department during his stay in hospital, he is only recorded once, under the department he is discharged from.

If a patient was admitted to one hospital and was transferred to another hospital without firstly being discharged from the first, then only the hospital where he was officially discharged from is recorded.

Deviation from the definition:

Information on discharges refers to public sector hospitals only.

Healthy Newborn Babies (Z38): Up to 2010, they are completely excluded from the discharges. For the period 2011-2018, healthy newborns are included only as regards the deliveries taking place in Ammochostos General Hospital. From 2018 onwards, the discharges and the beddays of healthy newborns are excluded from the datafile.

1) Each hospital of the public sector provides CYPSTAT with all the discharges performed within the reference year; therefore, the source of data are the public sector's hospitals, i.e. the Ministry of Health.

2) Only the public sector's hospitals are covered including General, Rural and Mental Health hospitals. Therefore private hospitals, the BoC Oncology Center, as well as the Cyprus Institute of Neurology and Genetics and the military hospital are not covered.

3) The NHDDDB includes all inpatient discharges and day cases in covered hospitals.

4) Discharge: The conclusion of a period of in-patient care, irrespective of whether the patient returned home, was sent to another hospital, left or taken against medical advice or died. Data does not relate to individual records. This means that a single patient may therefore account for more than one discharge during the year. Moreover, if a patient has been admitted in one department e.g. general medicine and has been moved to another department during his stay in hospital, he is only recorded once, under the department he is discharged from. Additionally, if a patient was admitted to one hospital and was transferred to another hospital without firstly being discharged from the first, then only the hospital where he was officially discharged from is recorded.

5) The day cases are included in the NHDDDB and they are identified by the same admission and discharge dates.

6) Healthy newborn babies (Z38) have been included in the NHDDDB only for the period 2011-2018, for only one General Hospital.

7) The diagnosis during discharge is being codified. The number of cases with codified diagnosis is much smaller in 2012 than in previous years, due to changes in the coding process, i.e. up to 2010 the diagnosis was sent to CYPSTAT in words and the codification was performed by specially trained CYPSTAT coders. From 2011 onwards, the codification is being performed in the hospitals by specially trained coders; however, the coverage is quite low. This situation would be improved in the following years.

Latvia

Hospital discharges by diagnostic categories

Source of data: **National Health Service.**

Reference period: During the year.

Coverage:

- The data cover all H.P.1 providers of health care, which have a contract with the National Health Service, and all activities of inpatient care financed by state.
- The data file does not contain information regarding all discharged inpatients because some hospitals have not concluded an agreement with the National Health Service.
- At the moment, the figures on new-borns are excluded.

Note: The changes in some trends which occur in 2014 or other years for several categories, can be explained by: changes in coding, amount of state paid services, quota on health care services.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **National Health Service.**

Reference period: During the year.

Coverage:

- The data cover all H.P.1 providers of health care, which have a contract with the National Health Service, and all activities of inpatient care financed by state.
- The data file does not contain information regarding all discharged inpatients because some hospitals have not concluded an agreement with the National Health Service.
- At the moment, the figures on new-borns are excluded.

Lithuania

Hospital discharges by diagnostic categories

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

Reference period: During the year.

Coverage:

- 1) The source of hospital discharge data is the Compulsory Health Insurance Fund information system SVEIDRA (CHIF IS). The National Health Insurance Fund under the Ministry of Health is the owner of the CHIF IS. For statistical needs the Health Information Centre of Institute of Hygiene regularly receives a copy of this database.
- 2) The CHIF IS covers all hospitals having contracts with the National Health Insurance Fund, including nursing hospitals (up to 120 days length of stay for a person). Database does not include data of few budget financed and private hospitals. For official hospital statistics nursing patients in nursing and general hospitals were excluded. Discharges from sanatoriums were excluded (as sanatorium was not treated as a hospital).
- 3) The CHIF IS covers about 96-98 % of hospital discharges. If a hospital has a contract with the National Health Insurance Fund, all inpatients should be included in the database (day cases, uninsured persons, foreigners, military staff, etc.). Healthy newborns (code Z38) are excluded.
- 4) Discharge record is based on the episode starting from admission to the hospital to discharge from the hospital (to home, to other hospital or death).
- 5) There is no clear national definition of day case. Therefore, day cases were calculated simply as alive persons admitted and discharged to home in the same day. In 2014 the number of day cases has decreased as more procedures (especially for neoplasms and diseases of skin and subcutaneous tissue) were performed outside hospitals (as outpatient cases).
- 6) -
- 7) The main diagnosis in the hospital discharge record is the main clinical diagnosis (condition) for which the biggest part of resources and time was used. Up to 2011 only one main diagnosis was coded and stored in the database. Since June, 2011 additionally all complications and co-morbidities is coded and stored in the database. Since June, 2011 DRG payment system was introduced for curative (acute) care, what could influence to the choice of main diagnosis.
- 8)-

Hospital (inpatient) bed-days by diagnostic categories

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

Reference period: During the year.

Coverage:

1) The source of hospital discharge data is the Compulsory Health Insurance Fund information system SVEIDRA (CHIF IS). The National Health Insurance Fund under the Ministry of Health is the owner of the CHIF IS. For statistical needs the Health Information Centre of Institute of Hygiene regularly receives a copy of this database.

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8)-

Luxembourg

Hospital discharges by diagnostic categories

Source of data:

Due to the introduction of a procedure classification system (ICD-10-PCS) from 2018 onwards, we are not able to provide any data related to ICD Codes for the year 2017. Provided that quality tests are positive, data for 2018 will be available in 2019.

Fichiers de la sécurité sociale. Data prepared by **Inspection générale de la sécurité sociale.**

Reference period: during the year.

Coverage:

Coverage by hospital type:

- 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).

Missing records:

- Liveborn infants according to place of birth (Z38) are not registered as patients by hospitals. Therefore, no diagnostic for discharge is provided.

- Cases with unknown diagnostic or unspecified cause are included in ICD-10 code R69.

Multi-episode cases

- Multi-episode cases are considered as separate discharge records.

Day-cases:

- Day cases were identified by the same admission and discharge dates.

Other notes related to coverage:

- Data refer only to the resident population covered by the statutory health insurance scheme.
- Admissions from the subchapters V, W, X and Y from ICD-10 are excluded.

Definition of main diagnosis:

- There are no conditions or regulations defining how the main diagnosis should be established for the record.

Other notes related to recording and diagnostic practices:

- Classification ICD-10 used.
- Data for 2016 are as preliminary. In 2017, all data were revised since 2002. In 2018, all data were revised since 2006. In 2020, all data were revised since 2008.
- Due to the introduction of a procedure classification system (ICD-10-PCS) from 2018 onwards, we are not able to provide any data related to ICD Codes for the years 2017 and 2018. Provided that quality tests are positive, data for 2018 will be available in 2019. So far, quality tests are ongoing and data cannot be used for the moment.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

Due to the introduction of a procedure classification system (ICD-10-PCS) from 2018 onwards, we are not able to provide any data related to ICD Codes for the year 2017. Provided that quality tests are positive, data for 2018 will be available in 2019.

Fichiers de la sécurité sociale. Data prepared by **Inspection générale de la sécurité sociale.**

Reference period: during the year.

Coverage:

Coverage by hospital type

- 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).

Missing records

- Liveborn infants according to place of birth (Z38) are not registered as patients by hospitals. Therefore, no diagnostic for discharge is provided.
- Cases with unknown diagnostic are included.

Multi-episode cases

- Multi-episode cases are considered as separate discharge records.

Day-cases

- Day cases were identified by the same admission and discharge dates.

Other notes related to coverage

- Data refer only to the resident population covered by the statutory health insurance scheme.
- Admissions from the subchapters V, W, X and Y from ICD-10 are excluded.

Definition of main diagnosis

- There are no conditions or regulations defining how the main diagnosis should be established for the record.

Other notes related to recording and diagnostic practices

- Classification ICD-10 used.
- Data for 2016 should be considered as preliminary. In 2018, all data were revised since 2006. In 2020, all data were revised since 2008.
- Due to the introduction of a procedure classification system (ICD-10-PCS) from 2018 onwards, we are not able to provide any data related to ICD Codes for the year 2017 and 2018. So far, quality tests are ongoing and data cannot be used for the moment.

Hungary

Hospital discharges by diagnostic categories

Source of data:

- From 2004 onwards: **National Healthcare Services Center** (ÁEEK in Hungarian), based on itemized data of the inpatient care finance report submitted by the health insurance fund. Data are calculated by case number for hospital discharge, not case number for department. www.aEEK.hu.

Coverage:

- Data are based on ICD-10.
- The data are calculated from the itemised data of the inpatient care finance report submitted by the health insurance fund.
- *Multi-episode cases*: The case number for hospital discharge is provided, rather than the case number for department. If the hospital case involved care in several departments, then the hospital case is assigned to the major diagnosis of the department case whose DRG classification had the highest weight number.
- *Inpatient case*: Hospital case where the date of admission is older than the date of discharge. One-day ambulatory cases are not included.
- *Day case*: Hospital case where the date of admission and the date of discharge are identical, and where the medical intervention performed during the stay appears on the list of allowed day case interventions.

Break in time series: 2007. The decrease in hospital care in 2007 was related to the introduction of co-payment in the course of the healthcare reform that started at the end of 2006, and finished at the middle of 2008.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

- From 2004 onwards: **National Healthcare Services Center** (ÁEEK in Hungarian), based on itemized data of the inpatient care finance report submitted by the health insurance fund. Data are calculated by case number for hospital discharge, not case number for department. www.aEEK.hu.

Coverage:

- Data are based on ICD-10.
- The data are calculated from the itemised data of the inpatient care finance report submitted by the health insurance fund.
- *Multi-episode cases*: The case number for hospital discharge is provided, rather than the case number for department. If the hospital case involved care in several departments, then the hospital case is assigned to the major diagnosis of the department case whose DRG classification had the highest weight number.
- *Inpatient case*: Hospital case where the date of admission is older than the date of discharge. One-day ambulatory cases are not included.

Malta

Hospital discharges by diagnostic categories

Source of data:

Hospital activity figures on Hospital activity analysis databases for St. Luke's Hospital and Gozo General Hospital.

2004: Hospital activity figures on Hospital activity analysis databases for Mater Dei Hospital/St. Luke's Hospital only

2005-2008: Hospital activity figures on Hospital activity analysis databases for Mater Dei Hospital/St. Luke's Hospital and Gozo General Hospital.

2009: Hospital activity analysis figures from ALL state hospital (5 in all).

2010 onwards: Hospital activity analysis figures from ALL state and private hospitals

Reference period: during the year

Coverage:

Figures in this table for 2006 represent 69% of episodes of care in State acute general hospitals. Figures are representative of about 48% of episodes of care in acute hospitals at National level.

For 2007, episodes (inpatients and day cases) together with relevant LOS with an ISHMT diagnosis in Table Discharges by diagnosis (40597 episodes in all between inpatients and day cases) represent 61.1% of all admissions to State acute hospitals.

For 2008, the total number of data records for episodes of care i.e. 53766 represents circa 74% of HP.1.1 State hospital admissions. The number of records with a valid diagnosis code i.e. 45083 represent 60% of HP.1.1 State hospital admissions.

For 2009: Discharges data collated from all state hospitals (HP.1)

From 2010 onwards: Discharges data was collated from all state and private hospitals (HP.1)

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.

2017: Discharges from a new small private hospital are included in 2016 discharges data.

Estimation method:

Liveborn, infants born in hospital are not captured by major state hospital.

The differences for 2006 as compared to 2005 and 2007 might be explained by the migration of acute hospital services in late 2007 from St Luke's Hospital to Mater Dei Hospital. During the migration period certain non-urgent admissions were curtailed and hence this might have affected the figures.

For 2007: Data from the main State hospital is not subdivided into inpatient and day care episodes. Day care episodes are extracted using the following criteria: 1): booked admission to wards where day cases are "admitted", 2): discharge on medical advice, 3): Length of stay.

For 2008: Babies born in hospital (ICD10 code Z38) are still not recorded as episodes of care by the major State general hospital. Hence data for this category is still not available.

Since the opening of the new State Hospital in Malta, there has been a very significant increase in the percentage of admissions to State hospitals and a corresponding marked decrease in admissions to private institutions.

2009: Healthy newborn infants are included in the discharges for this year. Data collection has been carried out from all state hospitals for 2009. Regarding episodes of care in our Psychiatric hospital which had length of stay of over one year, only the days spent in hospital through 2009 were collated. Thus any one episode of care could not have more than 365 days as recorded LOS.

2010 onwards: All discharges from state and private hospitals, including healthy newborn infants, are included in the data submission.

For 2017, discharges from a small licensed private hospital were not submitted and hence not included.

For 2018, discharges from a small licensed private hospital were not submitted and hence not included.

1. The National Hospitals Information System which is managed by the Directorate for Health Information and Research was used to produce the HDD file for hospital discharges.
2. Discharges from all public and private licensed hospitals are included in the dataset

3. It is estimated that clinical discharge data is captured for approximately 88% of all in-patient and day care discharges registered in administrative databases in the main public acute hospital. For other hospitals, the data received from each entity is assumed to be complete.
4. The discharges are based on the whole hospital stay.
5. For most hospitals, day cases are flagged as such however these are also validated in that stays with a length of stay of more than 0 days which are flagged as Day cases are re coded as In-patients. On the other hand, 'Elective/planned' hospital stays of 0 days are re coded as Day Cases.
6. Data for hospital stays resulting in an outcome of death, are derived from death certificates as no clinical discharge summary is compiled in such hospital episodes. Thus, the main discharge diagnosis is taken from the cause of death.
7. In many hospital episodes, the main discharge diagnosis is defined by the clinician filling up a discharge summary. In episodes where clearly the main discharge diagnosis was not rightly chosen, then the coder would change the sequence for the primary and secondary diagnoses.
8. The type of hospital is also taken into consideration when the defining the main discharge diagnosis. For example, the main discharge diagnosis from a rehabilitation hospital would need to be modified to show that the main reason for admission was for rehabilitation.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

Hospital activity figures on Hospital activity analysis databases for St. Luke's Hospital and Gozo General Hospital.

2004: Hospital activity figures on Hospital activity analysis databases for Mater Dei Hospital/St. Luke's Hospital only

2005-2008: Hospital activity figures on Hospital activity analysis databases for Mater Dei Hospital/St. Luke's Hospital and Gozo General Hospital.

2009: Hospital activity analysis figures from ALL state hospital (5 in all).

2010 onwards: Hospital activity analysis figures from ALL state and private hospitals

Reference period: during the year

Coverage:

Figures in this table for 2006 represent 69% of episodes of care in State acute general hospitals. Figures are representative of about 48% of episodes of care in acute hospitals at National level.

For 2007, episodes (inpatients and day cases) together with relevant LOS with an ISHMT diagnosis in Table Discharges by diagnosis (40597 episodes in all between inpatients and day cases) represent 61.1% of all admissions to State acute hospitals.

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For 2015: Discharges from the small private hospital which were not previously included are included in 2015 discharges data.

For 2016: Discharges from a new small private hospital are included in 2016 discharges data.

For 2017: Discharges from a small private hospital are not included in 2017 discharges data.

For 2018: Discharges from a small private hospital are not included in 2018 discharges data.

Estimation method:

For 2006:

Liveborn infants born in hospital are not captured by major state hospital.

The differences for 2006 as compared to 2005 and 2007 might be explained by the migration of acute hospital services in late 2007 from St Luke's Hospital to Mater Dei Hospital. During the migration period certain non-urgent admissions were curtailed and hence this might have affected the figures.

For 2007:

Data from the main State hospital is not subdivided into inpatient and day care episodes. Day care episodes are extracted using the following criteria: 1): booked admission to wards where day cases are "admitted", 2): discharge on medical advice, 3): Length of stay.

For 2008: Babies born in hospital (ICD10 code Z38) are still not recorded as episodes of care by the major State general hospital. Hence data for this category is still not available.

Since the opening of the new State Hospital in Malta, there has been a very significant increase in the percentage of admissions to State hospitals and a corresponding marked decrease in admissions to private institutions.

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2010 onwards: All discharges from state and private hospitals, including healthy newborn infants, are included in the data submission

2011 data has been corrected since the bed days of a particular hospital was wrongly compiled.

For 2017, discharges from a small licensed private hospital were not submitted and hence not included.

Netherlands

Hospital discharges by diagnostic categories

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 hospital discharges by age, sex, ISHMT diagnoses and NUTS2. It has been linked to the Social Statistical Database of Statistics Netherlands, in order to be able to produce the statistics with breakdowns to age, gender, region and residents/non residents.

Reference period:

- All hospital discharges with a discharge date in the calendar year are included.

Metadata information:

- Up to 2012 diagnoses are registered according to the ICD-9-CM in the HDR, from 2013 onwards the ICD-10 is used.

- For the figures of 2006 and further the ISHMT version of 10 November 2008 is used. Up to 2005, the ISHMT version of 24 November 2006 was used.

- Only the principal diagnoses are included.

- From 2005 onwards the HDR in the Netherlands suffers from a degree of non-response. The non-response (as a percentage of all discharges) increased from 1% in 2004 to 25% in 2012.

In 2019 the non-response was 14%. The figures are corrected for the non-response by imputation, based on known characteristics of the missing records (specialism and case type). From 2013 onwards also some micro data (age, sex, and some additional administrative admission data) are available of the (previously) missing discharges, which enables improved imputation of diagnoses. However, the fact that imputation is (still) needed, results in less accuracy of the figures from 2005 onwards.

Deviation/compliance with the definition:

- Discharges in Dutch hospitals of non-residents of the Netherlands are included in the figures. The numbers in the category 'NUTS2 is unknown' are based on admissions of patients who were not living in the Netherlands according to the HDR. For identifying non-residents, we however also used address information obtained by linkage to the municipality register (the exact procedure of identifying non-residents is described in NLD_EurostatModule_2021_NonResidentDischarges.doc). Therefore, the admissions in the category 'NUTS2 is unknown' does not equal the number of admissions of non-residents.
- 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.
 - From 2018 onwards, healthy newborns, defined as discharges with ICD-10 main diagnosis Z38, are included. Until 2018 healthy newborns (then defined by discharges with ICD-10 main diagnoses Z38 or Z76.2) were NOT included in the outcome.
 - Age is calculated as age at the 31st of December of the reporting year (up to 2012 age was calculated as age at the admission date).
- The HDR covers only short-stay hospitals. The hospitals included are all general and university hospitals, one specialized eye hospital and, from 2018 onwards, two cancer hospitals (before 2018 one cancer hospital was included). 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 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.

Hospital (inpatient) bed-days by diagnostic categories

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 hospital discharges by age, sex, ISHMT diagnoses and NUTS2.

Reference period:

- All hospital discharges with a discharge date in the calendar year are included.

Metadata information:

- Up to 2012 diagnoses are registered according to the ICD-9-CM in the HDR, from 2013 onwards the ICD-10 is used.

- For the figures of 2006 and further the ISHMT version of 10 November 2008 is used. Up to 2005, the ISHMT version of 24 November 2006 was used.

- Only the principal diagnoses are included.

- From 2005 onwards the HDR in the Netherlands suffers from a degree of non-response. The non-response (as a percentage of all discharges) increased from 1% in 2004 to 25% in 2012. In 2019, the non-response was 14%. The figures are corrected for the non-response by imputation, based on known characteristics of the missing records (specialism and case type). From 2013 onwards also some micro data (age, sex, and some additional administrative admission data) are available of the (previously) missing discharges, which enables improved imputation of diagnoses. However, the fact that imputation is (still) needed, results in less accuracy of the figures from 2005 onwards.

Deviation/compliance with the definition:

Discharges in Dutch hospitals of non-residents of the Netherlands are included in the figures. The numbers in the category 'NUTS2 is unknown' are based on admissions of patients who were not living in the Netherlands according to the HDR. For identifying non-residents, we however also used address information obtained by linkage to the municipality register (the exact procedure of identifying non-residents is described in NLD_EurostatModule_2021_NonResidentDischarges.doc). Therefore, the admissions in the category 'NUTS2 is unknown' does not equal the number of admissions of non-residents.

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.

From 2018 onwards, healthy newborns, defined as discharges with ICD-10 main diagnosis Z38, are included. Until 2018 healthy newborns (then defined by discharges with ICD-10 main diagnoses Z38 or Z76.2) were NOT included in the outcome.

Age is calculated as age at the 31st of December of the reporting year (up to 2012 age was calculated as age at the admission date).

The HDR covers only short-stay hospitals. The hospitals included are all general and university hospitals, one specialized eye hospital and, from 2018 onwards, two cancer hospitals (before 2018 one cancer hospital was included). 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 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

Hospital discharges by diagnostic categories

Source of data: **Statistics Austria**, Hospital discharge statistics.

Reference period: 31st December.

Coverage:

- Included are discharges from hospitals classified as HP.1 according to SHA/OECD.
- Included are inpatient discharges and day cases separately.
- Inpatient discharges exclude day cases. Day cases are defined by the same admission and discharge dates (before midnight).
- Inpatient discharges include discharges to home, other inpatient-institutions and deaths in hospitals.
- Included are residents and non-residents.
- Healthy newborns are not documented as treatment cases.
- Long-term inpatients are included.
- For each inpatient stay a main diagnosis has to be documented at discharge. The main diagnosis is the disease, which the medical examinations proved to be the principal cause of the inpatient stay. During the inpatient stay acquainted new diseases or new complications are not a main diagnosis. The main diagnosis is a definitely clarified diagnosis. If a final clarification is not possible, the main symptom, the most severe abnormal finding or disease has to be selected as main diagnosis.

Break in time series:

- DRG-based hospital funding, effective since 1997, might have changed coding performance relative to the years before.
- ICD-9 code was used from 1989 to 2000, ICD-10 from 2001 on. The change of ICD-9 to ICD-10 in 2001 may cause breaks in time series for several diagnoses.
- "HIV disease" (ISHMT-code 0105): From 1989 to 1992 included in "Endocrine, nutritional and metabolic diseases" (ISHMT-code 0400); since 1993 in "Certain infectious and parasitic diseases" (ISHMT-code 0100).
- Data are not available for "Coxarthrosis" (ISHMT code 1301) and "Gonarthrosis" (ISHMT code 1302) before 2001.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Statistics Austria**, Hospital discharge statistics.

Reference period: 31st December.

Coverage:

- Includes all inpatient institutions classified as HP.1 according to SHA/OECD.
- Inpatient bed-days exclude day cases. Day cases are defined by the same admission and discharge dates (before midnight).
- Inpatients include discharges to home, other inpatient-institutions and deaths in hospitals.
- Included are residents and non-residents.
- Healthy newborns are not documented as treatment cases.
- Long-term inpatients are included.
- For each inpatient stay a main diagnosis has to be documented at discharge. The main diagnosis is the disease, which the medical examinations proved to be the principal cause of the inpatient stay.

During the inpatient stay acquainted new diseases or new complications are not a main diagnosis. The main diagnosis is a definitely clarified diagnosis. If a final clarification is not possible, the main symptom, the most severe abnormal finding or disease has to be selected as main diagnosis.

Break in time series:

- DRG-based hospital funding, effective since 1997, might have changed coding performance relative to the years before.
- ICD-9 code was used from 1989 to 2000, ICD-10 from 2001 on. The change of ICD-9 to ICD-10 in 2001 may cause breaks in time series for several diagnoses.
- "HIV disease" (ISHMT-code 0105): From 1989 to 1992 included in "Endocrine, nutritional and metabolic diseases" (ISHMT-code 0400); since 1993 in "Certain infectious and parasitic diseases" (ISHMT-code 0100).
- Data are not available for "Coxarthrosis" (ISHMT-code 1301) and "Gonarthrosis" (ISHMT-code 1302) before 2001.

Poland

Hospital discharges by diagnostic categories

Source of data:

- **National Institute of Public Health-National Institute of Hygiene (NIPH-NIH)**, General Hospital Morbidity Study (GHMS), for discharges from general (i.e. non-psychiatric) hospitals.
- **Institute of Psychiatry and Neurology**, Psychiatric Inpatient Morbidity Study (PIMS), for discharges from psychiatric hospitals and psychiatric departments of general hospitals. Data provided from 2005 onward.

Coverage:

- *Coverage by hospital type:* All HP.1 institutions (public and private) are included. Military and Ministry of Internal Affairs hospitals are not included.
- *Missing records:* Data for General (non-psychiatric) Hospital Morbidity Study were provided by 91% of all hospitals in 2005, 93% in 2006, 92% in 2007, 88% in 2008, 93% in 2009 and 92 in 2010. Data for Psychiatric Inpatient Morbidity Study cover all psychiatric hospitals.
- *Day cases:* Day-cases are defined by the same admission and discharge dates excluding deceased, transferred to other hospitals, discharged on own request.
- *Definition of main diagnosis:* In general (non-psychiatric) hospitals it is first department main diagnosis; in psychiatric hospitals it is main diagnosis decided at discharge (end of hospitalisation).

Break in time series: Data from psychiatric hospitals and psychiatric departments of general hospitals are included from 2005 onward.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

- **National Institute of Public Health-National Institute of Hygiene (NIPH-NIH)**, General Hospital Morbidity Study (GHMS), for discharges from general (i.e. non-psychiatric) hospitals.
- **Institute of Psychiatry and Neurology**, Psychiatric Inpatient Morbidity Study (PIMS), for discharges from psychiatric hospitals and psychiatric departments of general hospitals. Data provided from 2005 onward.

Coverage:

- *Coverage by hospital type:* All HP.1 institutions (public and private) are included. Military and Ministry of Internal Affairs hospitals are not included.

- *Missing records*: Data for General (non-psychiatric) Hospital Morbidity Study were provided by 91% of all hospitals in 2005, 93% in 2006, 92% in 2007, 88% in 2008, 93% in 2009 and 92 in 2010. Data for Psychiatric Inpatient Morbidity Study cover all psychiatric hospitals.
 - *Day cases*: Day-cases are defined by the same admission and discharge dates excluding deceased, transferred to other hospitals, discharged on own request.
 - *Definition of main diagnosis*: In general (non-psychiatric) hospitals it is first department main diagnosis; in psychiatric hospitals it is main diagnosis decided at discharge (end of hospitalisation).
- Break in time series: Data from psychiatric hospitals and psychiatric departments of general hospitals are included from 2005 onward.

Portugal

Hospital discharges by diagnostic categories

Source of data: **Ministry of Health**. Central Administration of the Health System (ACSS).

Coverage:

- Only institutions that belong to National Health Service (public hospitals in the mainland) are covered.
- Data include all public hospitals in the mainland.
- 2016-17 data are not available due to the transitional period from ICD-9-CM to ICD-10-CM.

Break in time series: 2008, 2018.

- The increase in discharges for mental disorders in 2008 is due to the fact that two psychiatric hospitals started reporting data in 2008.
- As of 2018, ICD-10-CM is used. This explains at least partly the variations observed for some categories between 2015 and 2018.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Ministry of Health**. Central Administration of the Health System (ACSS).

Coverage:

- Only institutions that belong to National Health Service are covered.
- Data include all public hospitals in the mainland.
- 2016-17 data are not available due to the transitional period from ICD-9-CM to ICD-10-CM.

Break in time series: 2018.

- As of 2018, ICD-10-CM is used. This explains at least partly the variations observed for some categories between 2015 and 2018.

Romania

Hospital discharges by diagnostic categories

Source of data:

Ministry of Health - National Centre of Statistics and Informatics in Public Health for the period 2000 - 2008

National School of Public Health and Health Management - Bucharest since 2009

Coverage:

The data concerning discharges cover only the hospitals from the Ministry of Public Health network (public sector) for the period 2000 – 2008.

Since 2009, the data concerning discharges cover all the hospitals (public and private (including not for profit) sector) that have concluded a contract with the National House for Health Insurances (CNAS).

"Primary diagnosis codes at discharge were used, according to ICD AM required in the ISHMT short list.

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.)"

No microdata available.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

Ministry of Health - National Centre of Statistics and Informatics in Public Health for the period 2000 – 2008

National School of Public Health and Health Management - Bucharest since 2009

Coverage:

The data concerning discharges cover only the hospitals from the Ministry of Public Health network (public sector) for the period 2000 - 2008

Since 2009, the data concerning discharges cover all the hospitals (public and private sector) that have concluded a contract with the National House for Health Insurances (CNAS)

"Primary diagnosis codes at discharge were used, according to ICD AM required in the ISHMT short list.

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

No microdata available.

Slovenia

Hospital discharges by diagnostic categories

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

Reference period: During the year.

Coverage:

- *Coverage by hospital type:* data include all private and public hospitals, all types (general and university - HP.1.1, psychiatric - HP.1.2, and specialty hospitals - HP.1.3).

- Data include:

- Inpatient discharges

- Day-cases discharges

- All patients (including uninsured, foreigners)

- Long duration stays in hospitals

- Palliative care in hospitals

- Healthy newborn babies (since 2003)

Data exclude:

- Rehabilitative care in specialised centres (Institute for Rehabilitation, in spas - these rehabilitative stays are registered in a separated registration system)

- Outpatient care in hospitals

Missing records: In 2007 there were 13 in-patient cases and 23 hospital days for in-patient cases where gender was unknown or indefinable. In 2009 there were 11 in-patient cases and 313 hospital days for in-patient cases where gender was unknown or indefinable. In 2010 there were 24 in-patient cases and 56 hospital days for in-patient cases where gender was unknown or indefinable.

- In 2013, there were 7 in-patient cases where gender was unknown or indefinable.
- In 2014, there were 3 in-patient cases where gender was unknown or indefinable.
- In 2015, there were 7 in-patient cases where gender was unknown or indefinable.

Multi-episode cases: The hospital discharge records are based on treatment episodes (each in one department). If the patient has been in several departments during his stay without leaving the hospital, all these episodes have been combined with special computer programme (in IPHRS) into one discharge record (by population identification number and admission date). The proportion of multi-episode in-patient cases in 2019 is 5,1 %.

Day cases: According to OECD – SHA definition day care patients are formally admitted for diagnosis, treatment or other types of health care with the intention of discharging on the same day. The NHDDDB has a special sign for such sort of care («day-care»).

- Some patients need day-care service in the hospital more than once – we use the special term for such sort of care: "long-continued day-care" - LCDC – and all day-care episodes of such treatment are counted as one case of "LCDC treatment".

- The number of presence days for day case discharges is recorded in the NHDDDB. The proportion of multi-episode day-cases among all day-cases in 2019 is 7,1 %.

Definition of main diagnosis: the main diagnosis is defined as that which was responsible for the patient's admission at the hospital, which best reflects the main reason for admission, or that which is the main reason for treatment. If there is a multiple-episode case the main diagnosis is taken from the first episode.

Other notes related to recording and diagnostic practices: Records of admissions due to injuries or poisonings contain also External Cause code.

Break in time series:

- Since 2009, more cataract surgeries were carried out in outpatient system.
- Data provided to the OECD from 1997 to 2003 exclude psychiatric hospitals and departments of psychiatry in other hospitals, as well as long term care and disabled youth care.
- In 2013, there were some changes in the methodology for collecting data.

Hospital (inpatient) bed-days by diagnostic categories

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

Reference period: during the year.

Coverage:

- *Coverage by hospital type:* data include all private and public hospitals, all types (general and university - HP.1.1, psychiatric - HP.1.2, and specialty hospitals - HP.1.3).

- Data include:

- Inpatient discharges
- All patients (including uninsured, foreigners)
- Long duration stays in hospitals
- Palliative care in hospitals
- Healthy newborn babies (since 2003)

- Data exclude:

- Rehabilitative care in specialised centres (Institute for Rehabilitation, in spas - these rehabilitative stays are registered in a separated registration system)
- Outpatient care in hospitals

Missing records: In 2007, there were 13 in-patient cases and 23 hospital days for in-patient cases where gender was unknown or indefinable. In 2009, there were 11 in-patient cases and 313 hospital

days for in-patient cases where gender was unknown or indefinable. In 2010, there were 24 in-patient cases and 56 hospital days for in-patient cases where gender was unknown or indefinable.

- In 2013, there were 14 hospital bed-days for in-patient cases where gender was unknown or indefinable.

- In 2014, there were 9 hospital bed-days for in-patient cases where gender was unknown or indefinable.

- In 2015, there were 50 hospital bed-days for in-patient cases where gender was unknown or indefinable.

Multi-episode cases: The hospital discharge records are based on treatment episodes (each in one department). If the patient has been in several departments during his stay without leaving the hospital, all these episodes have been combined with special computer programme (in IPHRS) into one discharge record (by population identification number and admission date). The proportion of multi-episode in-patient cases in 2019 is 5,1 %.

Definition of main diagnosis: the main diagnosis is defined as that which was responsible for the patient's admission at the hospital, which best reflects the main reason for admission, or that which is the main reason for treatment. If there is a multiple-episode case the main diagnosis is taken from the first episode.

Other notes related to recording and diagnostic practices: Records of admissions due to injuries or poisonings contain also External Cause code.

Breaks in time series:

- Since 2009, more cataract surgeries were carried out in outpatient system.

- Data provided to the OECD from 1997 to 2003 exclude psychiatric hospitals and departments of psychiatry in other hospitals, as well as long term care and disabled youth care.

- In 2013, there were some changes in the methodology for collecting data.

Slovakia

Hospital discharges by diagnostic categories

Source of data: Institute of Health Information and Statistics, Report on admission to inpatient care.

Coverage:

- *Coverage by hospital type:* All health establishments (HP1), including public and private hospitals, military hospitals, prison hospital.

- *Missing records:* All discharges are included, including discharges of patients with permanent address outside the Slovak Republic and homeless patients and patients with unknown address.

- *Multi-episode cases:* Transfers to other care units within the same hospital are excluded, but transfers of patients who are transferred with new main diagnosis to other care units within the same hospital are included, **and proportion of such cases is 4% in the year 2018.**

(In 2002-03, transfers between departments of the same facility may be included).

- *Inpatient cases:*

- up to 2011 inpatient cases include day cases.

- from 2012 day cases are excluded from inpatient cases.

- *Day cases:* Day cases are identified by the same admission and discharge dates. **Deaths on admission day are excluded from day cases.**

- *Definition of main diagnosis:* the main diagnosis is based on the main condition, disease or accident which was the cause of the hospitalisation.

- *Other notes related to recording and diagnostic practices:* In 2019, 363 records with length of stay exceeding 180 days (max allowed 700 days) i.e. patients with psychiatric diagnosis in long-term care. Since 2014, there are a few inpatient cases with ICD-10 code O09 that are included in the main category "Pregnancy, childbirth and the puerperium", but not in any of the subcategories (e.g. 626

and 687 inpatient discharges in 2017 and 2018 respectively). The code O09 is an additional code, not corresponding to a main diagnosis.

Break in time series:

- 2012. Day cases are excluded from inpatient discharges as of 2012, explaining the decrease in the number of discharges for several categories (e.g. cataract, medical abortion) in 2012. Furthermore, U codes diagnoses are excluded since 2012.
- 2017. In 2017, the transition to the classification system of hospitalization cases DRG (Diagnoses Related Groups) was carried out in institutional health care, and this transition also caused some changes in the coding of diagnoses among healthcare providers. This causes breaks for some diagnostic categories (e.g. Alzheimer's disease (ISHMT code 0601), Cataract (ISHMT code 0701), Complications of pregnancy during labour and delivery (ISHMT code 1504), Single spontaneous delivery (ISHMT code 1505), Sequelae of injuries, poisoning and external causes (ISHMT code 1910).

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Institute of Health Information and Statistics**, Report on admission to inpatient care.

Coverage:

- *Coverage by hospital type:* All health establishments (HP1), including public and private hospitals, military hospitals, prison hospital.
- *Missing records:* All discharges are included, including discharges of patients with permanent address outside the Slovak Republic and homeless patients and patients with unknown address.
- *Multi-episode cases:* Transfers to other care units within the same hospital are excluded, but transfers of patients who are transferred with new main diagnosis to other care units within the same hospital are included, **and proportion of such cases is 4% in the year 2018.** (In 2002-03, transfers between departments of the same facility may be included).
- *Inpatient cases:*
 - up to 2011 inpatient cases include day cases.
 - from 2012 day cases are excluded from inpatient cases.
- *Day cases:* Day cases are identified by the same admission and discharge dates. **Deaths on admission day are excluded from day cases.**
- *Definition of main diagnosis:* the main diagnosis is based on the main condition, disease or accident which was the cause of the hospitalisation.
- *Other notes related to recording and diagnostic practices:* In 2019, 363 records with length of stay exceeding 180 days (max allowed 700 days) i.e. patients with psychiatric diagnosis in long-term care. Since 2014, the ICD-10 code O09 is included in the main category "Pregnancy, childbirth and the puerperium", but not in any of the subcategories. The code O09 is an additional code, not corresponding to a main diagnosis.

Break in time series: 2012. Day cases are excluded from inpatient data as of 2012, explaining the increase in ALOS for several categories (e.g. diseases of the eye and adnexa, medical abortion) in 2012. Furthermore, U codes diagnoses are excluded since 2012.

Finland

Hospital discharges by diagnostic categories

Source of data: **THL Finnish Institute for Health and Welfare**; Hospital Discharge Register.

Reference period: During the year.

Coverage:

- *Day cases:* patients admitted and discharged during the same day.
- *Inpatient cases:* cases where admission day differs from that of discharge day.

- Data exclude transfers to another department within the same institution.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **THL Finnish Institute for Health and Welfare**; Hospital Discharge Register.

Reference period: During the year.

Coverage:

- *Inpatient cases:* cases where admission day differs from that of discharge day.
- Data exclude transfers to another department within the same institution.

Sweden

Hospital discharges by diagnostic categories

Source of data: **National Board of Health and Welfare**, National Patient Register (NPR).

Coverage:

- National Patient Register (NPR). The National Patient Register started in 1964. Since 1987, the register has covered public inpatient care. During the years 1987–1996, the Swedish version of WHO's International Classification of Diseases (9th revision) was used. ICD10 was introduced in 1997. The number of dropouts in the register reporting is estimated to be between one and two percent.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **National Board of Health and Welfare**, National Patient Register (NPR).

Coverage:

- National Patient Register (NPR). The National Patient Register started in 1964. Since 1987, the register has covered public inpatient care. During the years 1987–1996, the Swedish version of WHO's International Classification of Diseases (9th revision) was used. ICD10 was introduced in 1997. The number of dropouts in the register reporting is estimated to be between one and two percent.

Iceland

Hospital discharges by diagnostic categories

Source of data: **Directorate of Health in Iceland**. Hospital data registry.

Coverage:

- Data cover whole country.
- Data from 1999-2006 cover health care facilities with at least one bed available for curative care.

Break in time series: 2007. Data have been updated back to 2007 so that the data now more accurately match the definition of hospitals given in the joint questionnaire (facilities where there is not a 24 hour physician presence are excluded).

Included:

- All hospitals in the country (data cover the public sector (all hospitals in Iceland are publically financed).
- Inpatient cases only.
- Only hospitals with a 24 hour physician presence (from 2007 and onwards).
- All discharges with a length of stay (LOS) of less than 90 days.
- Based on principal/main diagnosis.

Excluded:

- Specialised institutions such as rehabilitation centers, nursing homes or residential care facilities.

- Transfers to other specialty areas (“þjónustuflokkar”) within hospitals.

Estimation method:

- Data compiled using ICD-10 codes and Eurostat age groups.

Break in time series: In 2010, a new registration system was implemented in hospitals nationwide. Changes were also made to the national registration standards. Data on diagnoses and procedures are not complete in all cases for the year 2010. The 2010 data are therefore omitted.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: **Directorate of Health in Iceland.** Hospital data registry.

Coverage:

- Data cover whole country.

- Data from 1999-2006 cover health care facilities with at least one bed available for curative care.

Break in time series: 2007. Data have been updated back to 2007 so that the data now more accurately match the definition of hospitals given in the joint questionnaire (facilities where there is not a 24 hour physician presence are excluded).

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- All discharges with a length of stay (LOS) of less than 90 days.

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- Specialised institutions such as rehabilitation centers, nursing homes or residential care facilities.

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Estimation method:

- Data compiled using ICD-10 codes and Eurostat age groups.

Break in time series: In 2010, a new registration system was implemented in hospitals nationwide. Changes were also made to the national registration standards. Data on diagnoses and procedures are not complete in all cases for the year 2010. The 2010 data are therefore omitted.

Liechtenstein

Hospital discharges by diagnostic categories

Source of data: Data report from hospital.

Coverage: only public sector. Data available since 2012

Note: ICD code Z38: the hospital in Vaduz (Liechtenstein) closed its “birth department” in 2014. Subsequently women from Liechtenstein give birth either in Switzerland or Austria.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: Data report from hospital.

Coverage: Data available since 2012

Note: ICD code Z38: the hospital in Vaduz (Liechtenstein) closed its “birth department” in 2014. Subsequently women from Liechtenstein give birth either in Switzerland or Austria.

Norway

Hospital discharges by diagnostic categories

Source of data: Norwegian Patient Register (NPR) in the Norwegian Directorate of Health.

Coverage:

- Cover all inpatient institutions which are classifiable as HP.1 which are governmental financed.
- Cover inpatient discharges, day cases and outpatient cases.
- Episodes where diagnose is not registered are excluded.

Break in time series: 2011.

- As of 2011, mental health hospitals are included.
- As of 2011, data for ICD-10 codes O80 (single spontaneous delivery) and O81-O84 (other delivery) are not available. The information is provided for ICD-10 codes Z37.0 to Z37.9 (outcome of delivery) which are included in ISHMT category 2105 ("other factors influencing health status and contact with health services").

Hospital (inpatient) bed-days by diagnostic categories

Source of data: Norwegian Patient Register (NPR) in the Norwegian Directorate of Health: <https://helsedirektoratet.no/english/norwegian-patient-register>.

Coverage:

- From 2011: Covers all governmental financed bed-days in general hospitals (HP.1.1), mental health hospitals (HP.1.2) and other specialised hospitals (HP.1.3). Private financed activity in private hospitals are not included. Day cases are not included.
- Up to 2010: Only general hospitals are covered. Day cases are not included.

Break in time series: 2011.

- As of 2011, mental health hospitals are included.
- As of 2011, data for ICD-10 codes O80 (single spontaneous delivery) and O81-O84 (other delivery) are not available. The information is provided for ICD-10 codes Z37.0 to Z37.9 (outcome of delivery) which are included in ISHMT category 2105 ("other factors influencing health status and contact with health services").

Switzerland

Hospital discharges by diagnostic categories

Source of data: FSO Federal Statistical Office, Neuchâtel. Medical Statistics of Hospitals, 2002 and following years.

Reference period: Annual census.

Coverage:

- *Coverage by hospital type:* The data cover all inpatient institutions (public and private hospitals) which are classifiable as HP.1 providers. However, military and prison hospitals are not included.
- *Missing records:*
 - All inpatient cases and day-cases are covered. The coverage is considered sufficient since 2003. In 2003, the coverage was 93%; in 2008, 99% of all expected inpatient cases are being medically documented in the national hospital discharge database.
 - Since 2009 (included), due to a modification of the legislation, day-cases are not reported anymore.

- *Multi-episode cases*: The record structure for inpatient cases is based on cases by hospitals; there is no combination of cases involving two or more distinct hospitals and no combination of multi-episode inpatient cases.

- *Other notes on coverage*: Only discharges occurring between January 1st and December 31st of the statistical period are accounted for.

- *Definition of main diagnosis*: The main diagnosis is defined as the condition diagnosed at the end of the hospitalisation period, primarily responsible for the patient's need for treatment or examination at the hospital.

- *Other notes related to recording and diagnostic practices*: The Medical Statistics of Hospitals was started in its present form in 1998. The reliability of the data in terms of coverage and quality is considered as sufficient since 2003. The coding quality is increasing, the best results being reached in acute care hospitals where patient classification systems are used for financing.

Deviation from the definition: 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).

Break in time series:

- There is a high number (20%) of invalid ICD-codes for day-cases in 2005.

- The gradual change of diagnosis classification since 2008 from ICD-10 WHO to ICD-10 GM (German modification) may lead to breaks for some categories.

- Since 2009 (included), day-cases are not reported anymore due to a modification of the legislation.

- Some breaks in 2010 are due to the gradual migration from ICD-10 WHO to ICD-10 GM.

- The decrease in discharges for Sequelae of injuries, of poisoning and of other external causes (ISHMT group 1910) in 2012 is due to a change in classification system: up until 2011, the classification system was ISHMT. From 2012 on, the system used is CIM-10.

- The decrease in discharges for Septicaemia (ISHMT code 0104) in 2014 is due to changes in coding instructions (since 2014, the ICD-10 codes A40-A41 are found more often as supplementary diagnoses than main diagnoses).

- Some variations in 2015 may also be linked to changes in coding instructions (e.g. for Other diseases of the digestive system – ISHMT code 1120).

- Until 2016, observations with missing ICD code were included in the total ("all causes") but not in any sub-category. From 2017, these observations have been attributed to the ICD-10 code R69 (ISHMT category 1803). The small difference remaining between "All causes" and the sum of ISHMT categories is due to ICD-10 codes D90 and U (not listed in ISHMT, so only included in the total).

Hospital (inpatient) bed-days by diagnostic categories

Source of data: FSO Federal Statistical Office, Neuchâtel. Medical Statistics of Hospitals, 2002 and following years.

Reference period: Annual census.

Coverage:

- *Coverage by hospital type*: The data cover all inpatient institutions (public and private hospitals) which are classifiable as HP.1 providers. However, military and prison hospitals are not included.

- *Missing records*:

- All inpatient cases and day-cases are covered. The coverage is considered sufficient since 2003. In 2003, the coverage was 93%; in 2008, 99% of all expected inpatient cases are being medically documented in the national hospital discharge database.

- Since 2009 (included), due to a modification of the legislation, day-cases are not reported anymore.

- *Multi-episode cases*: The record structure for inpatient cases is based on cases by hospitals; there is no combination of cases involving two or more distinct hospitals and no combination of multi-episode inpatient cases.

- *Other notes on coverage:* Only discharges occurring between January 1st and December 31st of the statistical period are accounted for.

- *Definition of main diagnosis:* The main diagnosis is defined as the condition diagnosed at the end of the hospitalisation period, primarily responsible for the patient's need for treatment or examination at the hospital.

- *Other notes related to recording and diagnostic practices:* The Medical Statistics of Hospitals was started in its present form in 1998. The reliability of the data in terms of coverage and quality is considered as sufficient since 2003. The coding quality is increasing, the best results being reached in acute care hospitals where patient classification systems are used for financing.

Deviation from the definition: 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).

Break in time series:

- There is a high number (20%) of invalid ICD-codes for day-cases in 2005.
- The gradual change of diagnosis classification since 2008 from ICD-10 WHO to ICD-10 GM (German modification) may lead to breaks for some categories.
- Since 2009 (included), day-cases are not reported anymore due to a modification of the legislation.
- Some breaks in 2010 are due to the gradual migration from ICD-10 WHO to ICD-10 GM.
- The increase in ALOS for Septicaemia (ISHMT code 0104) in 2014 is due to changes in coding instructions (since 2014, the ICD-10 codes A40-A41 are found more often as supplementary diagnoses than main diagnoses).
- Some variations in 2015 may also be linked to changes in coding instructions (e.g. for Other diseases of the digestive system – ISHMT code 1120).
- Until 2016, observations with missing ICD code were included in the total (“all causes”) but not in any sub-category. From 2017, these observations have been attributed to the ICD-10 code R69 (ISHMT category 1803). The small difference remaining between “All causes” and the sum of ISHMT categories is due to ICD-10 codes D90 and U (not listed in ISHMT, so only included in the total).

Montenegro

Hospital discharges by diagnostic categories

Source of data: The source for data submitted is the Institute of Public Health.

Coverage: Only discharges from public hospitals are included

Note: Presented data for 2015 year are from Health Statistical Information system of Institute of Public Health

Hospital (inpatient) bed-days by diagnostic categories

Data not available.

North Macedonia

Hospital discharges by diagnostic categories

Data not available.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: Health Insurance fund – DRG.

Reference period: 31st December.

Note: the data are from publicly owned hospitals, outpatient departments in hospitals, emergency departments, outside hospitals. The private hospitals, private outpatient departments in hospitals, private emergency departments, and private outside hospitals are not included.

Albania

Hospital discharges by diagnostic categories

Data not available.

Hospital (inpatient) bed-days by diagnostic categories

Data not available.

Serbia

Hospital discharges by diagnostic categories

Source of data: Institute of Public Health of Serbia, National hospital discharge database.

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. Data from health institutions under other ministries (military services, prisons, social services) than the Ministry of Health are not included. Data from private health sector are not included. In 2017, there is approximately 10% missing data on cases with main diagnosis belonging to ICD10 group XVI (P00-P96) due to lack of possibility in some hospital information system to record the age of infant. Cases with main diagnosis belonging to ICD10 = Z38 are excluded. Day cases were identified by the same admission and discharge dates.

Hospital (inpatient) bed-days by diagnostic categories

Source of data: Institute of Public Health of Serbia, National hospital discharge database.

Coverage: Data for Kosovo-Metohija province are not included in the coverage of data for the Republic of Serbia. Data from health institutions under other ministries (military services, prisons, social services) than the Ministry of Health are not included. Data from private health sector are not included.

Turkey

Hospital discharges by diagnostic categories

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

Coverage:

- *Coverage by hospital type:* Data collected from all hospitals (all public, private and university hospitals).

- *Inpatient cases:* Data include discharges and deaths in hospitals. Discharge occurs anytime a patient leaves because of end of treatment, signs out against medical advice, transfers to another health care institution or because of death.

Hospital (inpatient) bed-days by diagnostic categories

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

Coverage:

- *Coverage by hospital type:* Data collected from all hospitals (all public, private and university hospitals).
- *Inpatient cases:* Data include discharges and deaths in hospitals. Discharge occurs anytime a patient leaves because of end of treatment, signs out against medical advice, transfers to another health care institution or because of death.

United Kingdom

Hospital discharges by diagnostic categories

Source of data:

Data have been aggregated by the NHS Digital from the following sources:

- *England:* Hospital Episode Statistics (HES); Inpatients, **NHS Digital**, England. <http://content.digital.nhs.uk/>.
- *Wales:* Patient Episode Database for Wales (PEDW), **NHS Wales Informatics Service (NWIS)**. <http://www.statswales.wales.gov.uk/index.htm>.
- *Scotland:* Information Services Division (ISD), **National Health Service Scotland** (SMR01 records). http://www.isdscotland.org/Health-Topics/Hospital-Care/Data_Sources_and_Clinical_Coding.doc.
- *Northern Ireland:* Hospital Inpatient System (HIS), The **Department of Health**, (DoH). <https://www.health-ni.gov.uk/topics/doh-statistics-and-research>.

Reference period:

- *England, Wales and Scotland:* Data is based on Financial Discharge Years 1st April to 31st March.
- *Northern Ireland:* Data have been tabled by calendar year.
- Includes records for discharge dates occurring in the reference year, regardless of admission date.

Coverage:

- *Coverage by hospital type:*

- *England:* Inpatient data cover activity in English NHS Hospitals and English NHS commissioned activity in the independent sector.
- *Scotland:* Data collected on discharges from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland. Only patients treated as inpatients or day cases are included. The specialty of geriatric long stay is excluded.
- *Wales:* All NHS commissioned data carried out in private sector hospitals is included.
- *Northern Ireland:* Inpatient data cover activity in Northern Ireland HSC hospitals including independent sector activity carried out in HSC hospitals.

- *Missing records:*

- *England:* Data include the count of discharge episodes with a primary diagnosis as defined by i) Ordinary (Non-Daycase – Length of stay > 0) ii) sum of Length of Stay for all ordinary episodes iii) Daycase episodes (Length of stay = 0).
- *Scotland:* Data include all patients treated as inpatients or day cases from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland.
- *Wales:* Data include all patients discharged from Welsh hospitals (including those NHS patients treated in private hospitals).
- *Northern Ireland:* Data include all patients treated in HSC hospitals.

- *Multi-episode cases:*

- *England:* A discharge episode is the last episode during a hospital stay (a spell), where the patient is discharged from the hospital (this includes transfer to another hospital). Discharges in the year have been used, that is, spells that end during the data year irrespective of when they began. Discharge episodes may be double-counted in a table, if they appear in more

than one row of the micro-cube, e.g. against two different diagnoses. Restricted to ordinary admissions, day cases and mothers/babies using delivery facilities (classpat = 1, 2 or 5). Regular day and night attenders not included.

- *Scotland*: Inpatient discharges are based on a Continuous Spell of Treatment (CIS) in hospital. Probability matching methods have been used to link together individual SMR01 hospitals episodes for each patient, thereby creating "linked" patient histories. Within these patient histories, SMR01 episodes are grouped according to whether they form part of a continuous spell of treatment (whether or not this involves transfer between hospitals or even Health Boards). On average there are 1.37 inpatient episodes per CIS.
- *Wales*: Discharge episode is the last episode during the hospital spell. Where a patient has received more than one treatment within a range of codes it has only been counted once.
- *Northern Ireland*: A discharge episode is the last episode during a hospital stay (a spell), where the patient is discharged from the hospital (this includes transfer to another hospital). Discharges in the year have been used, that is, spells that end during the data year irrespective of when they began.

- *Day-cases*:

- *England & Northern Ireland*: Days case are defined as admissions with a spell duration of zero (spell duration = 0). Ordinary admissions are where spell duration is greater than 0. Where spell durations are not known they are excluded.
- *Scotland*: Day cases have zero length of stay. SMR01 includes an inpatient/day case identifier variable. This variable has been used to identify inpatient and day case stays.
- *Wales*: A day case is defined by admission date = discharge date.

- *Other notes related to coverage*:

- *Scotland*: External Causes data were not available as these codes cannot be recorded as a main diagnosis on data returns. They can only be recorded in a secondary diagnosis position.
- *Northern Ireland*: Episodes where Primary diagnosis is not coded have been excluded.

- *Definition of main diagnosis*:

- *England*: The primary diagnosis is the first of up to 20 (14 from 2002-03 to 2006-07 and 7 prior to 2002-03) diagnosis fields in the Hospital Episode Statistics (HES) data set and provides the main reason why the patient was admitted to hospital. A primary diagnosis is recorded for each episode in a spell. The primary diagnosis in the discharge episode of the spell has been used for these data.
The external causes (V00-Y98) have been supplied, where a cause code is a supplementary code that indicates the nature of any external cause of injury, poisoning or other adverse effects. Only the first external cause code which is coded within the episode is counted in HES.
- *Scotland*: Each SMR01 record allows up to six diagnosis (one principal diagnosis and up to five other diagnoses) to be recorded. Only the principal diagnostic position has been used.
- *Wales*: Primary diagnosis in the discharge episode (as England above).
- *Northern Ireland*: The primary diagnosis is the first of up to seven diagnosis fields in the Hospital Inpatient System. Primary diagnosis provides the main reason why the patient was admitted to hospital. A primary diagnosis is recorded for each episode within an admission. Only the primary diagnosis in the discharge episode of the admission has been used for these data.

- *Other notes related to recording and diagnostic practices*:

- *England*: National data are recorded by financial years; therefore the data have been presented in financial years. NHS England and the HSCIC have implemented a new system for recording and reporting hospital episode statistics from 2012-13 onwards. As part of this implementation historic data have been transferred to the new system from the previous system, and during this process several minor issues were identified around how the legacy system handled flagged, identified and counted discharge episodes. As a result, there was a

small amount of double counting for discharge episodes under certain unique circumstances. These issues have been addressed with the move to the new system and in 2015 all HDD data for England have been restated from 2000-01 to 2012-13 based on the following definition: Count of discharge episodes with a primary diagnosis as defined by i) Ordinary (Non- Daycase – Length of stay > 0) ii) sum of Length of Stay for all ordinary episodes iii) Daycase episodes (Length of stay = 0).

Break in time series: 2012.

- “Diarrhoea & gastroenteritis, presumed infectious origin” (ICD-10 code A09) and “Other non-infective gastroenteritis and colitis” (ICD-10 code K52): New coding guidance was issued between 2011-12 and 2012-13 clarifying the presumption of infection. Previously, unless there was confirmed documentation of the infectious nature of the condition it would be coded as K52. From 2012-13 onwards this code is only used if there is documented evidence that the condition is not infectious, otherwise A09 will be used.
- “Hypertensive diseases” (ICD-10 codes I10-I15): There was a link between ‘Renal failure’ and ‘Hypertensive Disease’. From 2012-13 onwards this link is only coded if there is documented confirmation of both conditions from the consultant in charge.

Hospital (inpatient) bed-days by diagnostic categories

Source of data:

Data have been aggregated by the NHS Digital from the following sources:

- *England*: Hospital Episode Statistics (HES); Inpatients, **NHS Digital**, England.

<http://content.digital.nhs.uk/>.

- *Wales*: Patient Episode Database for Wales (PEDW), **NHS Wales Informatics Service** (NWIS).

<http://www.statswales.wales.gov.uk/index.htm>.

- *Scotland*: Information Services Division (ISD), **National Health Service Scotland** (SMR01 records).

http://www.isdscotland.org/Health-Topics/Hospital-Care/Data_Sources_and_Clinical_Coding.doc.

- *Northern Ireland*: Hospital Inpatient System (HIS), The **Department of Health**, (DoH).

<https://www.health-ni.gov.uk/topics/doh-statistics-and-research>.

Reference period:

- *England, Wales and Scotland*: Data is based on Financial Discharge Years 1st April to 31st March.

- *Northern Ireland*: Data have been tabled by calendar year.

- Includes records for discharge dates occurring in the reference year, regardless of admission date.

Coverage:

- *Coverage by hospital type:*

- *England*: Inpatient data cover activity in English NHS Hospitals and English NHS commissioned activity in the independent sector.
- *Scotland*: Data collected on discharges from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland. Only patients treated as inpatients or day cases are included. The specialty of geriatric long stay is excluded.
- *Wales*: All NHS commissioned data carried out in private sector hospitals is included.
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- *Missing records:*

- *England*: Data include the count of discharge episodes with a primary diagnosis as defined by i) Ordinary (Non-Daycase – Length of stay > 0) ii) sum of Length of Stay for all ordinary episodes iii) Daycase episodes (Length of stay = 0).
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- *Multi-episode cases*:
- *England*: A discharge episode is the last episode during a hospital stay (a spell), where the patient is discharged from the hospital (this includes transfer to another hospital). Discharges in the year have been used, that is, spells that end during the data year irrespective of when they began. Discharge episodes may be double-counted in a table if they appear in more than one row of the micro-cube, e.g. against two different diagnoses. Restricted to ordinary admissions, day cases and mothers/babies using delivery facilities (classpat = 1, 2 or 5). Regular day and night attenders not included.
 - *Scotland*: Inpatient discharges are based on a Continuous Spell of Treatment (CIS) in hospital. Probability matching methods have been used to link together individual SMR01 hospitals episodes for each patient, thereby creating "linked" patient histories. Within these patient histories, SMR01 episodes are grouped according to whether they form part of a continuous spell of treatment (whether or not this involves transfer between hospitals or even Health Boards). On average there are 1.37 inpatient episodes per CIS.
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- *Day-cases*:
- *England & Northern Ireland*: Days case are defined as admissions with a spell duration of zero (spell duration = 0). Ordinary admissions are where spell duration is greater than 0. Where spell durations are not known they are excluded.
 - *Scotland*: Day cases have zero length of stay. SMR01 includes an inpatient/day case identifier variable. This variable has been used to identify inpatient and day case stays.
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- *Other notes related to coverage*:
- *Scotland*: External Causes data were not available as these codes cannot be recorded as a main diagnosis on data returns. They can only be recorded in a secondary diagnosis position.
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- *Definition of main diagnosis*:
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