



HELLENIC STATISTICAL AUTHORITY

Piraeus, 19 December 2023

# SURVEY ON IN-PATIENT HOSPITAL CARE, 2016

The Hellenic Statistical Authority (ELSTAT) announces the results of the In-patient Hospital Care Survey of the year 2016.

The In-patient Hospital Care Survey is a census survey and refers to the annual collection of data from public and private hospitals in Greece aiming at monitoring the morbidity at national and regional level. In particular, the aim is to record data on the number of patients discharged, their demographic characteristics and the disease for which they were hospitalized, in line with the International Statistical Classification of Diseases and Related Health Problems (ICD 10), provided that they stayed at least one night in the hospital.

The survey data were collected from 275 hospitals/clinics of which 36.4% (100) of them are located in Attiki and 24.7% (68) in Makedonia and Thraki, while as regards their legal form 45.5% (125) were public hospitals/clinics.

In year 2016, the total number of discharges amounted to 1,482,722 presenting a decrease of 0.1% (1,484,485) compared to year 2015, out of which 740,538 (49.9%) were male and 742,184 (50.1%) female patients. The 74.9% (1,110,486) of patients discharged were hospitalized in public hospitals/clinics.

The largest number of patients discharged was recorded in the age group 60-79 with 488,409 patients (32.9%), out of which 280,529 (57.4%) were males and 207,880 (42.6%) females (Table 1).

| Age groups        | Number of<br>discharges | %     | Males   | %     | Females | %     |
|-------------------|-------------------------|-------|---------|-------|---------|-------|
| Total             | 1,482,722               | 100.0 | 740,538 | 100.0 | 742,184 | 100.0 |
| 0 - 5 years       | 87,652                  | 5.9   | 49,451  | 6.7   | 38,201  | 5.1   |
| 6 – 19 years      | 75,985                  | 5.1   | 40,834  | 5.5   | 35,151  | 4.7   |
| 20 -39 years      | 252,987                 | 17.1  | 84,592  | 11.4  | 168,395 | 22.7  |
| 40 -59 years      | 308,541                 | 20.8  | 158,690 | 21.4  | 149,851 | 20.2  |
| 60 -79 years      | 488,409                 | 32.9  | 280,529 | 37.9  | 207,880 | 28.0  |
| 80 years and over | 264,817                 | 17.9  | 123,805 | 16.7  | 141,012 | 19.0  |
| Not reported      | 4,331                   | 0.3   | 2,637   | 0.4   | 1,694   | 0.2   |

## Table 1. Total of hospital discharges by age group and gender, 2016

From the total number of 1,482,722 patients discharged, 85.8% were cured or presented an improvement in their health status, 11.0% had no change or deterioration in their health status and 3.2% passed away.

In 2016, data on day-care cases amounted to 1,154,101 presenting an increase of 7.9% (1,070,005) compared to 2015 (Table 5).

Information on methodological issues:

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Tel: +30 213 135 2022, 2310, 2308 Email: <u>data.dissem@statistics.gr</u> The "Diseases of the circulatory system" accounted for the most of the patients discharged in 2016, with 205,902 (13.9%) incidents, followed by "Neoplasms" with 170,744 (11.5%), "Diseases of the digestive system" with 161,411 (10.9%), "Diseases of the respiratory system" with 130,638 (8.8%), "Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified" with 127,280 (8.6%) and "Diseases of the genitourinary system" with 120,631 (8.1%)(Table 2).

| Category of diseases   | Discharges | %     | Males   | %     | Females | %     |
|--|------------|-------|---------|-------|---------|-------|
| Grand total  | 1,482,722  | 100.0 | 740,538 | 100.0 | 742,184 | 100.0 |
| Certain infectious and parasitic diseases  | 35,238     | 2.4   | 18,176  | 2.5   | 17,062  | 2.3   |
| Neoplasms  | 170,744    | 11.5  | 92,572  | 12.5  | 78,172  | 10.5  |
| Diseases of the blood and bloodforming organs<br>and certain disorders involving the immune<br>mechanism | 26,514     | 1.8   | 12,038  | 1.6   | 14,476  | 2.0   |
| Endocrine, nutritional and metabolic diseases  | 28,718     | 1.9   | 10,392  | 1.4   | 18,326  | 2.5   |
| Mental and behavioural disorders   | 33,876     | 2.3   | 19,021  | 2.6   | 14,855  | 2.0   |
| Diseases of the nervous system   | 46,019     | 3.1   | 24,609  | 3.3   | 21,410  | 2.9   |
| Diseases of the eye and adnexa   | 37,144     | 2.5   | 18,153  | 2.5   | 18,991  | 2.6   |
| Diseases of the ear and mastoid process  | 6,747      | 0.5   | 3,563   | 0.5   | 3,184   | 0.4   |
| Diseases of the circulatory system   | 205,902    | 13.9  | 126,455 | 17.1  | 79,447  | 10.7  |
| Diseases of the respiratory system   | 130,638    | 8.8   | 74,357  | 10.0  | 56,281  | 7.6   |
| Diseases of the digestive system   | 161,411    | 10.9  | 90,630  | 12.2  | 70,781  | 9.5   |
| Diseases of the skin and subcutaneous tissue   | 20,354     | 1.4   | 11,875  | 1.6   | 8,479   | 1.1   |
| Diseases of the musculoskeletal system and<br>connective tissue  | 57,453     | 3.9   | 23,950  | 3.2   | 33,503  | 4.5   |
| Diseases of the genitourinary system   | 120,631    | 8.1   | 54,449  | 7.4   | 66,182  | 8.9   |
| Pregnancy, childbirth and the puerperium   | 107,801    | 7.3   | -       | 0.0   | 107,801 | 14.5  |
| Certain conditions originating in the perinatal period   | 22,045     | 1.5   | 12,252  | 1.7   | 9,793   | 1.3   |
| Congenital malformations, deformations and<br>chromosomal abnormalities                                  | 6,253      | 0.4   | 3,818   | 0.5   | 2,435   | 0.3   |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified                  | 127,280    | 8.6   | 69,496  | 9.4   | 57,784  | 7.8   |
| Injury, poisoning and certain other consequences of external causes                                      | 112,787    | 7.6   | 60,965  | 8.2   | 51,822  | 7.0   |
| External causes of morbidity and mortality   | 7,606      | 0.5   | 4,487   | 0.6   | 3,119   | 0.4   |
| Factors influencing health status and contact with health services                                       | 17,561     | 1.2   | 9,280   | 1.3   | 8,281   | 1.1   |

Table 2. Total of hospital discharges by diseases category and gender, 2016

Table 3 shows the average length of hospital stay by category of diseases (ICD-10). The longest average length of stay in 2016 was observed in the category "Mental and behavioural disorders" (92.4 days), followed by "Certain conditions originating in the perinatal period" (9.3 days), "Congenital malformations, deformations and chromosomal abnormalities" (6.9 days), "Diseases of the nervous system" (6.4 days) and "Neoplasms" (6.3 days).

| Category of diseases   | Days |
|--|------|
| Certain infectious and parasitic diseases  | 5.8  |
| Neoplasms  | 6.3  |
| Diseases of the blood and bloodforming organs and certain disorders involving the immune mechanism | 4.5  |
| Endocrine, nutritional and metabolic diseases  | 5.0  |
| Mental and behavioural disorders   | 92.4 |
| Diseases of the nervous system   | 6.4  |
| Diseases of the eye and adnexa   | 1.7  |
| Diseases of the ear and mastoid process  | 4.0  |
| Diseases of the circulatory system   | 5.6  |
| Diseases of the respiratory system   | 5.8  |
| Diseases of the digestive system   | 4.3  |
| Diseases of the skin and subcutaneous tissue   | 5.5  |
| Diseases of the musculoskeletal system and connective tissue                                       | 5.0  |
| Diseases of the genitourinary system   | 4.3  |
| Pregnancy, childbirth and the puerperium   | 3.8  |
| Certain conditions originating in the perinatal period   | 9.3  |
| Congenital malformations, deformations and chromosomal abnormalities                               | 6.9  |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified            | 4.0  |
| Injury, poisoning and certain other consequences of external causes                                | 5.7  |
| External causes of morbidity and mortality   | 3.2  |
| Factors influencing health status and contact with health services                                 | 4.1  |

| Table 3. Average length <sup>1</sup> of hospital stay by diseases category, 2016 |
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|--|

 $^{\rm 1}{\it Patients}$  with over 1-year length of stay are also included in the data

A total of 450,003 operations were carried out in the 1,482,722 patients hospitalized in year 2016. Most of them were carried out in the category "Diseases of the digestive system" accounting for 19.3% of the total number of operations (Table 4), followed by the "Pregnancy, childbirth and the puerperium" with 12.4%, the "Injury, poisoning and certain other consequences of external causes" with 12.2% and the "Diseases of the genitourinary system" with 11.7%.

As regards males, the three categories with the highest number of operations concerned "Diseases of the digestive system" (25.4%), "Injury, poisoning and certain other consequences of external causes" (13.8%) and "Diseases of the circulatory system" (12.7%). As regards females, the three categories with the highest number of operations concerned "Pregnancy, childbirth and the puerperium" (22.2%), "Diseases of the digestive system" (14.4%) and "Diseases of the genitourinary system" (12.9%).

| Category of diseases   | Operations | %     | Males   | %     | Females | %     |
|--|------------|-------|---------|-------|---------|-------|
| Grand total  | 450,003    | 100.0 | 199,185 | 100.0 | 250,818 | 100.0 |
| Certain infectious and parasitic diseases  | 27         | 0.0   | 17      | 0.0   | 10      | 0.0   |
| Neoplasms  | 48,227     | 10.7  | 21,047  | 10.6  | 27,180  | 10.8  |
| Diseases of the blood and bloodforming organs<br>and certain disorders involving the immune<br>mechanism | 27         | 0.0   | 18      | 0.0   | 9       | 0.0   |
| Endocrine, nutritional and metabolic diseases  | 8,753      | 1.9   | 2,290   | 1.2   | 6,463   | 2.6   |
| Diseases of the nervous system   | 2,234      | 0.5   | 886     | 0.4   | 1,348   | 0.5   |
| Diseases of the eye and adnexa   | 30,285     | 6.7   | 14,552  | 7.3   | 15,733  | 6.3   |
| Diseases of the ear and mastoid process  | 1,323      | 0.3   | 689     | 0.3   | 634     | 0.3   |
| Diseases of the circulatory system   | 37,564     | 8.3   | 25,300  | 12.7  | 12,264  | 4.9   |
| Diseases of the respiratory system   | 21,885     | 4.9   | 13,343  | 6.7   | 8,542   | 3.4   |
| Diseases of the digestive system   | 86,765     | 19.3  | 50,608  | 25.4  | 36,157  | 14.4  |
| Diseases of the skin and subcutaneous tissue   | 7,639      | 1.7   | 5,117   | 2.6   | 2,522   | 1.0   |
| Diseases of the musculoskeletal system and<br>connective tissue  | 32,024     | 7.1   | 11,807  | 5.9   | 20,217  | 8.1   |
| Diseases of the genitourinary system   | 52,486     | 11.7  | 20,068  | 10.1  | 32,418  | 12.9  |
| Pregnancy, childbirth and the puerperium   | 55,632     | 12.4  | -       | 0.0   | 55,632  | 22.2  |
| Certain conditions originating in the perinatal period   | 59         | 0.0   | 40      | 0.0   | 19      | 0.0   |
| Congenital malformations, deformations and chromosomal abnormalities                                     | 3,353      | 0.7   | 2,266   | 1.1   | 1,087   | 0.4   |
| Symptom,, signs and abnormal clinical and laboratory findings, not elsewhere classified                  | 1,819      | 0.4   | 1,251   | 0.6   | 568     | 0.2   |
| Injury, poisoning and certain other consequences of external causes                                      | 54,857     | 12.2  | 27,389  | 13.8  | 27,468  | 11.0  |
| External causes of morbidity and mortality   | 311        | 0.1   | 231     | 0.1   | 80      | 0.0   |
| Factors influencing health status and contact with health services                                       | 4,733      | 1.1   | 2,266   | 1.1   | 2,467   | 1.0   |

### Table 4. Surgical operations of patients discharged by diseases category and gender, 2016

The one-day clinic patients (Table 5) amounted to 1,154,101, out of which 560,701 (48.6%) were males and 593,400 (51.4%) females. The total number of discharges of one-day clinic patients in 2016 represented the 43.8% of total 2,636,823 discharges. The category of diseases with the largest share of day care patients was "Neoplasms" (38.8%), followed by "Diseases of the genitourinary system" with 10.2%, "Diseases of the eye and adnexa" with 9.8% and "Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism" with 8.6%.

| Category of diseases   | Patients<br>discharged | %     | Males   | %     | Females | %     |
|--|------------------------|-------|---------|-------|---------|-------|
| Grand total  | 1,154,101              | 100.0 | 560,701 | 100.0 | 593,400 | 100.0 |
| Certain infectious and parasitic diseases  | 7,104                  | 0.6   | 3,354   | 0.6   | 3,750   | 0.6   |
| Neoplasms  | 447,370                | 38.8  | 226,883 | 40.5  | 220,487 | 37.2  |
| Diseases of the blood and bloodforming organs and certain disorders involving the immune mechanism | 99,748                 | 8.6   | 46,061  | 8.2   | 53,687  | 9.0   |
| Endocrine, nutritional and metabolic diseases  | 10,187                 | 0.9   | 4,531   | 0.8   | 5,656   | 1.0   |
| Mental and behavioural disorders   | 3,530                  | 0.3   | 1,924   | 0.3   | 1,606   | 0.3   |
| Diseases of the nervous system   | 31,690                 | 2.7   | 11,878  | 2.1   | 19,812  | 3.3   |
| Diseases of the eye and adnexa   | 113,522                | 9.8   | 53,903  | 9.6   | 59,619  | 10.0  |
| Diseases of the ear and mastoid process  | 1,509                  | 0.1   | 827     | 0.1   | 682     | 0.1   |
| Diseases of the circulatory system   | 36,858                 | 3.2   | 22,438  | 4.0   | 14,420  | 2.4   |
| Diseases of the respiratory system   | 13,914                 | 1.2   | 7,931   | 1.4   | 5,983   | 1.0   |
| Diseases of the digestive system   | 43,914                 | 3.8   | 23,948  | 4.3   | 19,966  | 3.4   |
| Diseases of the skin and subcutaneous tissue   | 18,978                 | 1.6   | 10,659  | 1.9   | 8,319   | 1.4   |
| Diseases of the musculoskeletal system and<br>connective tissue                                    | 46,448                 | 4.0   | 17,462  | 3.1   | 28,986  | 4.9   |
| Diseases of the genitourinary system   | 117,234                | 10.2  | 51,359  | 9.2   | 65,875  | 11.1  |
| Pregnancy, childbirth and the puerperium   | 18,666                 | 1.6   | -       | 0.0   | 18,666  | 3.1   |
| Certain conditions originating in the perinatal period   | 1,067                  | 0.1   | 603     | 0.1   | 464     | 0.1   |
| Congenital malformations, deformations and chromosomal abnormalities                               | 2,475                  | 0.2   | 1,502   | 0.3   | 973     | 0.2   |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified            | 65,649                 | 5.7   | 35,666  | 6.4   | 29,983  | 5.1   |
| Injury, poisoning and certain other consequences of external causes                                | 21,654                 | 1.9   | 12,742  | 2.3   | 8,912   | 1.5   |
| External causes of morbidity and mortality   | 2,227                  | 0.2   | 1,357   | 0.2   | 870     | 0.1   |
| Factors influencing health status and contact with health services                                 | 50,357                 | 4.4   | 25,673  | 4.6   | 24,684  | 4.2   |

#### Table 5. Discharges of day care patients by diseases category and gender, 2016

The average age of adult patients discharged in 2016 was 60.7 years (males 62.6 and females 58.8). Table 6 presents the average age of discharged patients over 18 years old for the most frequent categories of diseases by gender.

| Category of diseases  | Average<br>age | Patients<br>discharged | Average<br>age | Males   | Average<br>age | Females |
|---|----------------|------------------------|----------------|---------|----------------|---------|
| Diseases of the circulatory system  | 69.1           | 203,819                | 67.1           | 125,090 | 72.4           | 78,729  |
| Neoplasms   | 64.0           | 166,490                | 66.4           | 90,244  | 61.3           | 76,246  |
| Diseases of the digestive system  | 61.1           | 148,168                | 61.1           | 83,368  | 61.0           | 64,800  |
| Diseases of the genitourinary system  | 60.8           | 114,008                | 66.1           | 50,391  | 56.6           | 63,617  |
| Diseases of the respiratory system  | 64.3           | 104,754                | 63.1           | 59,505  | 65.9           | 45,249  |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 62.8           | 104,175                | 63.1           | 57,707  | 62.5           | 46,468  |
| Pregnancy, childbirth and the puerperium  | 32.0           | 105,229                | -              | -       | 32.0           | 105,229 |
| Injury, poisoning and certain other consequences of external causes                     | 59.9           | 98,114                 | 52.4           | 51,540  | 68.3           | 46,574  |

## Table 6. Average age of patients discharged aged 18 years and over by diseases category and gender, 2016

As regards the breakdown discharges by patient's place of residence (Table 7), the largest share of discharges was recorded in the Region of Attiki (32.5%), followed by the Region of Kentriki Makedonia (17.3%) and Thessalia (7.3%).

| Table 7. Number of discharges by NUTS 2 region of the place of permanent resid | dence, 2016 |
|--|-------------|
|--|-------------|

| NUTS 2 Region               | Patients<br>discharged | (%)   |
|-----------------------------|------------------------|-------|
| Anatoliki Makedonia, Thraki | 85,438                 | 5.8   |
| Kentriki Makedonia          | 255,800                | 17.3  |
| Dytiki Makedonia            | 36,918                 | 2.5   |
| Ipeiros                     | 49,219                 | 3.3   |
| Thessalia                   | 107,992                | 7.3   |
| Sterea Ellada               | 54,893                 | 3,7   |
| Ionia Nisia                 | 29,521                 | 2,0   |
| Dytiki Ellada               | 82,647                 | 5,6   |
| Peloponnisos                | 70,723                 | 4.8   |
| Attiki                      | 482,538                | 32.5  |
| Voreio Aigaio               | 26,499                 | 1.8   |
| Notio Aigaio                | 35,177                 | 2.4   |
| Kriti                       | 88,456                 | 6.0   |
| Out of Greece               | 10,035                 | 0.7   |
| Not reported                | 66,866                 | 4.5   |
| Total                       | 1,482,722              | 100.0 |

### **EXPLANATORY NOTES**

In-patient Hospital Care Survey (Hospital discharges) Hospital Care (hospital discharges) is conducted for national needs on a yearly basis. The main purpose of the survey is to provide users with reliable and comprehensive information on the morbidity of the population. The questionnaires are filled in by the administrative departments of the hospitals in electronic format and are transmitted to ELSTAT.

- Legal framework The survey on in-patient hospital care is conducted by virtue of the Circular 795/27.11.1959 by the Ministers of Coordination and Social Welfare on the "Collection of statistical data on incoming and outcoming patients of all hospitals in Greece". Moreover, it is conducted in accordance with the Regulation (EC)1338/2008 for statistics on public health and health and safety at work.
- **Reference Period** The calendar year when the patient was discharged from the hospital.
  - Statistical<br/>populationThe hospitals (public hospitals, Legal Entities of Private and Public Law,<br/>private clinics) and the patient who was hospitalized. The survey refers to all<br/>the patients who were hospitalized at least once in all the hospitals/clinics of<br/>Greece. From 2013 onwards, the survey also records day care incidents,<br/>surgical operations and other medical activities requiring the hospitalization<br/>of patients only for some hours, without staying in the hospital and refer to<br/>several medical specialties.
    - **Definitions** "Hospital" is a health care institution where health care treatment is provided to patients by specialised medical or non-medical personnel. Hospitals, depending on their legal form, are classified as Legal Entities under Public Law, Legal Entities under Private Law, and private hospitals. Depending on the medical cases hospitalized, hospitals are distinguished into General, Mixed and Specialised (depending on the Medical Specialties: to cancer, dermatological, cardiological, gynaecological, psychiatric, orthopaedics, pathological, paediatrics, surgical and otolaryngology hospitals).

- "**Patient"** is the person who has been hospitalized for at least one day in the above mentioned hospitals. The survey refers to patients discharged from hospitals and their personal data are recorded every month once the patient is discharged.

- "**Category of the disease**" according to the International Classification of Diseases and Related Health Problems ICD-10 is the main disease diagnosed for which the patient was hospitalised, irrespectively whether another less important disease was diagnosed.

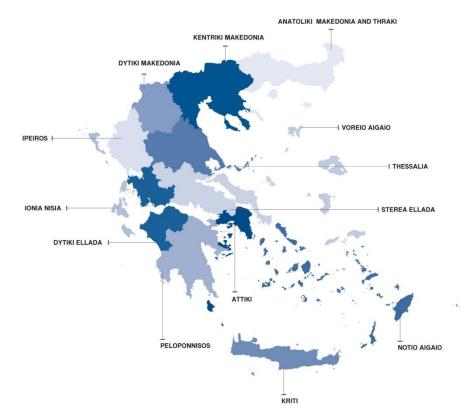
- **"Agency which is bearing the expenditure**" is the agency disbursing the payment, i.e. the social security fund or the patient himself.

- "Number of operations" is the number of operations which the patient had.

- "The outcome of the hospitalisation" may be a full recovery, a health improvement, a stable condition, a worsening of patients' condition, or death.

- "**Days of hospitalisation**" are the days during which the patient was hospitalized starting from the day the patient was admitted to hospital until the day when the patient was discharged.

Methodology, Until 2012, the data processing was conducted on a sample representing 12.5% of the total of the hospital discharges. Furthermore, the total number of discharges (2,169,864 in 2012) also included the one-day operations. From 2013 onwards, the data processing is conducted on a census basis. Data on the patient's occupation are classified according to ISCO-08. The diseases are classified in accordance with the International Classification of Disease and Related Health Problems, ICD-10. The geographical break down of data is in accordance with NUTS II classification.



Map of 13 NUTS 2 Regions of Greece

**References** More information on the Survey on In-patient Hospital Care can be found on the website of ELSTAT, at the link:

https://www.statistics.gr/en/statistics/-/publication/SHE12/-