



HELLENIC STATISTICAL AUTHORITY

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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 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 and certain disorders involving the immune 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 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 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 ¹ 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 and certain disorders involving the immune 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 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 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 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 age	Patients discharged	Average age	Males	Average 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
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NUTS 2 Region	Patients 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
populationThe hospitals (public hospitals, Legal Entities of Private and Public Law,
private clinics) and the patient who was hospitalized. The survey refers to all
the patients who were hospitalized at least once in all the hospitals/clinics of
Greece. From 2013 onwards, the survey also records day care incidents,
surgical operations and other medical activities requiring the hospitalization
of patients only for some hours, without staying in the hospital and refer to
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/-