

Piraeus, 3 February 2021

# **PRESS RELEASE**

Causes of Death: 2018

The Hellenic Statistical Authority (ELSTAT) announces statistical data on the causes of death for the year 2018. The data sources are the death certificates submitted by medical practitioners and, for violent or sudden deaths, by the Forensic Medicine Authorities.

Data on the causes of death are presented in accordance with the 10th Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10, version 2008) which was adopted in 2014. In particular, the data are as follows:

- In 2018, deaths recorded a decrease of 3.4%, amounting to 120,291¹ (61,382 men and 58,909 women) in comparison with 124,495 (63,165 men and 61,330 women), in 2017.
- The main causes of death in 2018 were diseases of the circulatory system with 44,590 deaths, followed by neoplasms with 30,331 deaths and by diseases of the respiratory system with 12,668 deaths (Tables 1-2, Graph 1).
- In comparison with the previous years, the share of deaths caused by diseases of the circulatory system rose from 10.0% in 1938 (first year when analytical data were made available) to 25.0% in 1956 (first year after the Second World War for which data were available) and up to 37.1% in 2018. The corresponding share of deaths caused by neoplasms rose from 4.1% in 1938 to 11.7% in 1956 and up to 25.2% in 2018. On the contrary, deaths caused by infectious and parasitic diseases, which in 1938 accounted for 18.4% of the total deaths, dropped significantly to 3.4% in 2018 (Table 3, Graph 2). It's worth noticing that classification changes should be taken into account when assessing the comparability of data over time.
- The number of deaths due to suicides, as recorded by the Forensic Medicine and Criminal Investigation Authorities, amounted to 567 in 2018, compared with 523 in 2017 (increase of 8.4%). It should be noted that any discrepancies between these data and the corresponding data of other agencies may be on account of the different methodology used or other underlying factors, such as the need for time-consuming research by the Forensic Medicine Authorities in order to investigate the conditions resulting to the death, deaths caused by late effects after a suicide attempt, etc.
- The data presented in this Press Release do not include data on the number of refugees/migrants who died while border-crossing before being registered in the Country or have drowned in Greek territorial waters. The corresponding figures per year are 302 in 2015, 164 in 2016, 27 in 2017 and 72 in 2018.

The data on the causes of death for the year 2018 are presented broken down by sex, age group, place of permanent residence of the deceased and month of occurrence (Tables 4-7, Graphs 3-4).

Information on methodological issues:

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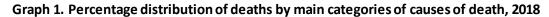
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Information on data provision:

<sup>&</sup>lt;sup>1</sup> It is noted that the data on deaths are finalized after the processing of the data on the causes of death, and therefore, the total number of deaths announced in this Press Release does not fully coincide with the data published in the Press Release on "Vital Statistics: 2019" of the 1st October 2020.

Table 1. Deaths by categories of causes of death, broken down by the most important subcategories, 2014-2018

Causes of death (ICD-10, version 2008)	2014	2015	2016	2017	2018
Total deaths	113,740	121,183	118,788	124,495	120,291
Certain infectious and parasitic diseases	3,515	3,936	4,013	4,165	4,054
Neoplasms	29,508	30,252	30,673	30,567	30,331
among which:	,	,	,	,	,
Malignant neoplasms of colon, rectosigmoid junction, rectum,					
anus and anal canal	2,750	2,805	2,891	2,686	2,681
Malignant neoplasm of liver and intrahepatic bile ducts	1,451	1,558	1,572	1,422	1,422
Malignant neoplasm of pancreas	1,763	1,859	1,833	1,882	1,914
Malignant neoplasms of trachea, bronchus and lung	7,080	7,158	7,127	7,178	7,046
Malignant neoplasm of breast	2,018	2,138	2,191	2,187	2,201
Malignant neoplasm of prostate	1,698	1,763	1,646	1,688	1,711
Diseases of the blood and blood-forming organs and certain					
disorders involving the immune mechanism	284	239	271	332	263
Endocrine, nutritional and metabolic diseases	1,952	2,036	2,006	2,464	2,509
among which, Diabetes mellitus	1,667	1,780	1,753	2,122	2,220
Mental and behavioural disorders	665	1,159	1,401	1,827	1,940
among which, Dementia	589	1,009	1,244	1,624	1,720
Diseases of the nervous system	2,523	2,963	3,235	3,767	3,652
among which:					
Parkinson disease	882	1,158	1,385	1,651	1,609
Alzheimer's disease	479	591	600	645	545
Diseases of the eye and adnexa	0	0	0	0	0
Diseases of the ear and mastoid process	0	1	1	0	1
Diseases of the circulatory system	45,148	46,411	44,164	46,942	44,590
among which:	13,110	10,111	11,201	10,3 12	1 1,550
Heart diseases	29,664	30,592	28,917	31,618	30,526
Cerebrovascular diseases	14,279	14,445	13,779	13,797	12,574
<b>Diseases of the respiratory system</b> among which:	12,751	14,835	13,809	13,847	12,668
Influenza	84	43	135	93	36
Pneumonia & other acute lower respiratory infections	5,523	6,732	6,535	6,766	6,145
Chronic lower respiratory diseases	2,829	3,486	2,976	3,260	3,029
Diseases of the digestive system	3,294	3,311	3,500	3,617	3,544
Diseases of the skin and subcutaneous tissue	66	50	43	62	54
Diseases of the musculoskeletal system and connective tissue	231	233	310	318	352
Diseases of the genitourinary system	2,791	3,663	3,276	3,578	3,544
Pregnancy, childbirth and the puerperium	4	5	6	10	4
Certain conditions originating in the perinatal period	190	195	219	159	173
Congenital malformations, deformations and chromosomal					
abnormalities	155	182	238	213	184
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7,109	7,766	7,561	8,236	7,910
External causes of mortality-Violent deaths	3,554	3,946	4,062	4,391	4,518
Transport accidents	1,025	956	1,013	917	865
Falls	421	584	658	902	918
Accidental drowning and submersion	349	350	405	347	367
Accidental poisoning by and exposure to noxious substances	184	284	238	268	268
Other accidents	421	677	704	888	923
Suicide	565	529	484	523	567
Homicide, assault	121	99	87	89	109
Other external causes	468	467	473	457	501



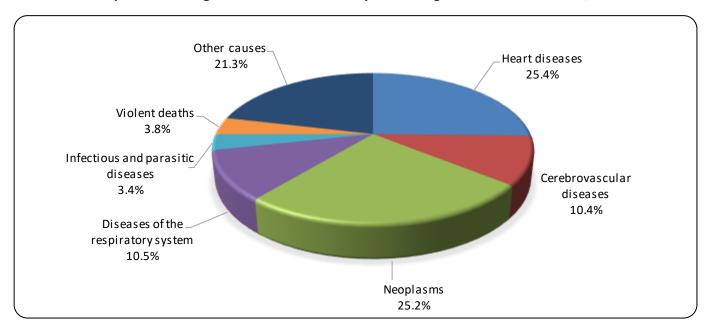


Table 2. Deaths by main categories of causes of death, years 2014-2018 and average number of deaths for the years 2014-2017

Year	2014	2015	2016	2017	2018	Average 2014-2017
Total deaths	113,740	121,183	118,788	124,495	120,291	119,552
Heart diseases	29,664	30,592	28,917	31,618	30,526	30,198
Cerebrovascular diseases	14,279	14,445	13,779	13,797	12,574	14,075
Neoplasms	29,508	30,252	30,673	30,567	30,331	30,250
Diseases of the respiratory system	12,751	14,835	13,809	13,847	12,668	13,811
Infectious and parasitic diseases	3,515	3,936	4,013	4,165	4,054	3,907
Violent deaths	3,554	3,946	4,062	4,391	4,518	3,988
Other causes	20,469	23,177	23,535	26,110	25,620	23,323

Table 3. Main categories of causes of death, years 1938, 1956, 1978, 1988, 1998, 2008 and 2018

Main causes of death	1938	1956	1978	1988	1998	2008	2018
Total deaths	93,766	59,460	81,615	92,407	102,668	107,979	120,291
Diseases of the circulatory system	9,347	14,893	32,219	47,755	52,801	49,214	44,590
Neoplasms	3,831	6,928	15,872	19,057	22,443	27,386	30,331
Diseases of the respiratory system	17,849	3,290	4,293	4,646	6,850	10,239	12,668
Infectious and parasitic diseases	17,283	3,185	1,115	658	706	1,077	4,054
Violent deaths	2,687	2,821	4,690	4,790	4,576	3,849	4,518
Other causes	42,769	28,343	23,426	15,501	15,292	16,214	24,130

Graph 2. Percentage distribution of main categories of causes of death, years 1938, 1956, 1978, 1988, 1998, 2008 and 2018

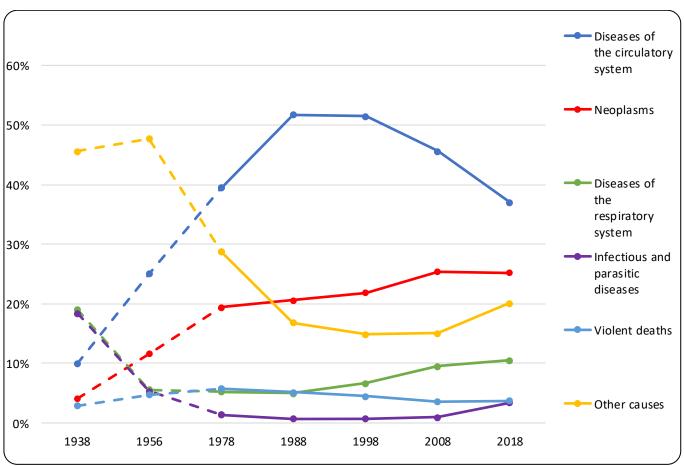


Table 4. Deaths by main categories of causes of death, by sex and age group, 2018

	Total	Deaths by age and sex												
Cause of death	deaths by	Under 15 years		15-29		30-44		4	45-59		60-74		75 and over	
death	cause	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
Total deaths	120,291	258	191	416	144	1,326	556	5,309	2,547	14,705	7,750	39,368	47,721	
Certain infectious and parasitic diseases	4,054	3	6	2	3	35	11	85	28	204	163	1,269	2,245	
Neoplasms among which:	30,331	26	16	40	32	239	274	1,885	1,416	6,550	3,589	9,605	6,659	
Malignant neoplasm of colon	2,366	0	0	0	0	9	13	119	73	413	244	839	656	
Malignant neoplasm of bronchus and lung	7,044	0	0	2	0	31	22	617	208	2,609	687	2,268	600	
Malignant neoplasm of breast	2,201	0	0	0	0	0	76	5	341	9	606	14	1,150	
Malignant neoplasm of prostate	1,711	0	0	0	0	0	0	30	0	280	0	1,401	0	
Malignant neoplasm of brain	984	7	7	5	5	30	19	122	66	231	140	179	173	
Leukaemia	1,189	7	4	8	6	22	10	67	34	173	114	434	310	
Diseases of the circulatory system among which:	44,590	3	4	37	12	352	89	1,890	505	4,528	1,945	14,587	20,638	
Heart diseases	30,526	3	3	30	8	291	60	1,507	365	3,289	1,351	9,966	13,653	
Cerebrovascular diseases	12,574	0	1	6	4	42	26	286	124	951	520	4,067	6,547	
Diseases of the respiratory system	12,668	18	13	5	2	26	11	157	72	783	432	5,281	5,868	
Congenital malformations, deformations and chromosomal abnormalities	184	55	41	10	5	5	13	30	15	2	8	0	0	
Other pathological causes	23,946	126	94	46	31	141	72	734	365	1,970	1,377	7,628	11,362	
Violent deaths	4,518	27	17	276	59	528	86	528	146	668	236	998	949	
Transport accidents	865	9	4	150	25	160	23	131	25	123	34	123	58	
Falls	918	2	0	11	1	13	2	36	8	67	17	338	423	
Accidental drowning and submersion	367	4	3	12	2	17	3	35	10	92	41	95	53	
Accidental poisoning by and exposure to noxious substances	268	0	0	25	1	146	13	55	10	11	4	1	2	
Other accidents	923	9	6	22	8	54	8	99	30	153	60	235	239	
Suicide	567	1	0	38	17	96	19	126	42	106	22	79	21	
Homicide, assault	109	2	2	17	1	19	7	22	5	14	6	6	8	
Other external causes	501	0	2	1	4	23	11	24	16	102	52	121	145	

Graph 3. Percentage distribution of deaths by main categories of causes of death, in total deaths, by age group and sex, 2018

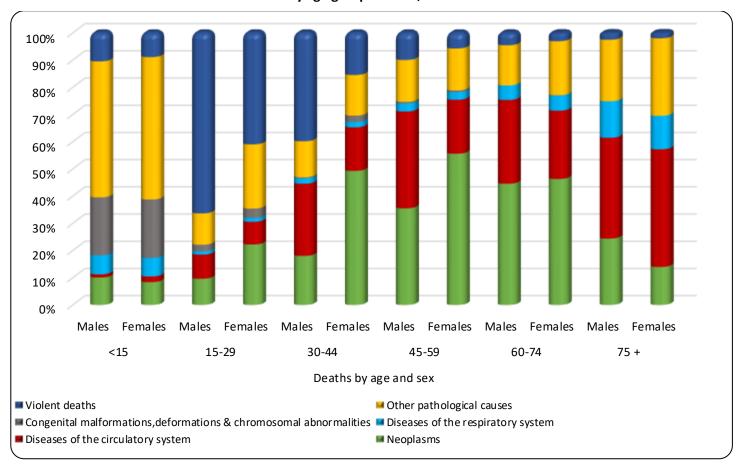


Table 5. Deaths by month of occurrence and cause of death, 2018

		Deaths by cause											
Month d	Total deaths per month	Certain infectious and parasitic diseases	Neoplasms	Heart diseases	Cerebrovascular diseases	Influenza, pneumonia & other acute lower respiratory infections	Transport accidents	Suicides	Other causes				
Total deaths	120,291	4,054	30,331	30,526	12,574	6,181	865	567	35,193				
January	10,961	324	2,617	2,934	1,270	587	52	41	3,136				
February	10,181	413	2,369	2,761	1,029	564	48	47	2,950				
March	10,780	322	2,594	2,665	1,182	631	74	42	3,270				
April	9,856	345	2,510	2,502	936	561	72	47	2,883				
May	9,258	272	2,435	2,172	1,046	479	72	69	2,713				
June	9,266	349	2,465	2,332	875	396	61	54	2,734				
July	9,984	313	2,571	2,312	1,013	534	95	69	3,077				
August	10,017	407	2,636	2,459	887	428	87	48	3,065				
September	9,005	300	2,417	2,195	971	413	72	43	2,594				
October	9,840	434	2,633	2,445	1,009	398	63	40	2,818				
November	9,998	224	2,483	2,765	1,083	528	83	37	2,795				
December	11,145	351	2,601	2,984	1,273	662	86	30	3,158				

Table 6. Cause-specific mortality by sex, for important categories of causes of death, 2018

Causes of Death	Total	Males	Females
Septicaemia	33.7	26.0	41.0
Malignant neoplasm of colon	22.0	26.5	17.9
Malignant neoplasm of pancreas	17.8	20.0	15.8
Malignant neoplasm of bronchus and lung	65.6	106.1	27.5
Malignant neoplasm of breast	20.5	0.5	39.3
Malignant neoplasm of prostate	15.9	32.8	0.0
Malignant neoplasm of bladder	11.8	20.1	4.0
Diabetes mellitus	20.7	21.7	19.8
Dementia and Alzheimer's disease	21.1	16.1	25.8
Heart diseases	284.4	289.6	279.5
Cerebrovascular diseases	117.2	102.7	130.7
Influenza, pneumonia & other acute lower respiratory infections	57.6	55.0	60.1
Chronic obstructive pulmonary disease	27.9	33.4	22.7
Senility	18.5	11.6	25.0
Transport accidents	8.1	13.4	3.1
Suicide	5.3	8.6	2.2

Graph 4. Cause-specific mortality by sex, for important categories of causes of death, 2018

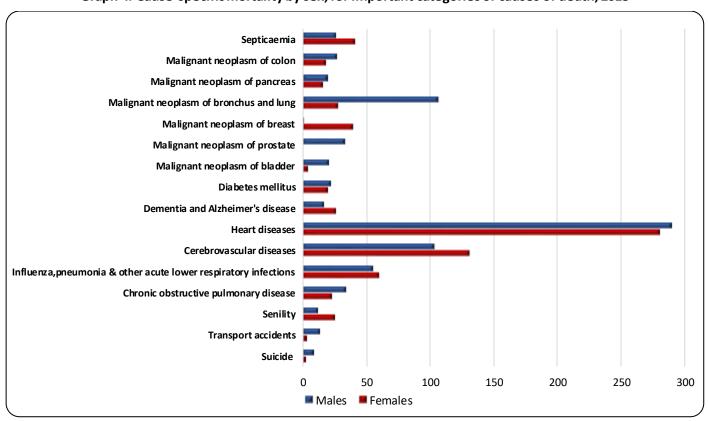


Table 7. Cause-specific mortality by main cause of death and NUTS2 Region of the permanent residence, 2018\*

Cause of death	Anatoliki Makedonia, Thraki	Kentriki Makedonia	Dytiki Makedonia	Thessalia	Ipeiros	Ionia Nisia	Dytiki Ellada	Sterea Ellada	Pelopon- nisos	Attiki	Voreio Aigaio	Notio Aigaio	Kriti
Total deaths	1,229.8	1,127.9	1,211.8	1,183.6	1,190.6	1,278.4	1,150.9	1,190.6	1,271.4	1,063.9	1,097.6	804.7	943.7
Certain infectious and parasitic diseases	27.5	32.6	31.7	50.3	45.2	50.4	39.9	38.7	44.0	36.4	42.1	25.4	46.2
Neoplasms	299.9	298.8	294.7	291.9	283.8	302.1	281.4	265.0	295.2	283.3	247.6	214.6	228.8
Diseases of the circulatory system among which:	511.5	414.1	520.7	424.2	460.4	438.2	419.1	473.7	464.9	389.2	379.4	272.7	320.9
Heart diseases	342.6	270.8	340.2	276.3	302.7	285.5	271.1	315.2	320.7	279.8	262.8	193.9	229.4
Cerebrovascular diseases	157.2	128.8	167.8	135.5	144.0	137.1	131.7	144.8	130.1	95.0	106.4	68.3	80.9
Diseases of the respiratory system	111.8	103.3	85.0	125.2	118.0	164.0	139.2	118.7	171.1	116.1	126.8	79.1	111.6
Other pathological causes	236.3	241.5	237.6	256.3	249.1	271.3	231.4	252.8	242.9	199.6	271.2	172.9	194.9
Violent deaths	42.8	37.6	42.1	35.7	34.1	52.4	39.9	41.7	53.3	39.3	30.5	40.0	41.3
Transport accidents	6.5	5.2	7.1	4.9	9.9	7.8	11.3	10.3	10.3	7.4	6.0	11.1	10.2
Falls	10.5	8.1	13.4	8.6	5.1	10.3	8.1	9.4	10.3	7.5	10.6	9.3	8.5
Accidental drowning and submersion	2.2	1.9	0.7	1.7	2.4	3.9	2.1	2.9	3.5	2.8	2.8	3.8	1.6
Accidental poisoning by and exposure to noxious substances	1.7	2.5	1.5	2.1	2.7	4.4	2.4	1.8	2.3	2.7	0.5	2.3	1.4
Other accidents	9.8	8.5	10.1	7.6	7.2	10.8	8.2	7.2	11.1	8.8	4.2	5.8	7.1
Suicide	5.3	4.7	5.2	6.1	3.3	9.3	3.7	5.6	8.9	4.3	3.7	3.5	8.7
Homicide, assault	1.0	0.4	0.0	0.4	0.6	1.5	1.2	0.5	1.4	1.3	0.5	0.9	1.1
Other external causes	5.8	6.2	4.1	4.3	3.0	4.4	2.9	4.1	5.7	4.5	2.3	3.2	2.7

<sup>\*</sup>Deaths of foreign residents, as well as those whose permanent residence was unknown, are not included

# **EXPLANATORY NOTES**

# Vital Statistics

Data on the causes of death are part of the Vital Statistics Survey, which is conducted in its current form since 1956. In cooperation with the Regional Statistical Offices of ELSTAT, individual statistical data on vital events (Marriages, Births, Deaths and Registered Partnerships) are collected on a monthly basis from the Civil Register Offices all over Greece. From 1938 onwards, data on the causes of death are compiled based on death certificates filled in by medical practitioners or forensic pathologists. As regards violent or sudden deaths, where the cause of death is not specified and more research is needed, data on the causes of death are collected through the Forensic Medicine Authorities. The survey produces statistical results on a yearly basis. Annual data are announced no later than two years after the reference year according to Commission Regulation (EU) No 328/2011.

# Legal Framework

The survey is fully harmonized with the European statistical practice: Regulation (EC) No 1338/2008 of the European Parliament and of the Council on "Community statistics on public health and health and safety at work" and Implementing Commission Regulation (EU) No 328/2011, as regards "statistics on causes of death". The survey is governed by Law 344/76 concerning the "Registration of vital events" which lays down the obligations of the Civil Register Offices to collect and then to transmit the data, as well as by Law 3832/2010 on the "Hellenic Statistical System".

#### Coverage

The survey is a census survey and it covers all the deaths, which occur all over Greece. Cases of refugees/migrants who died while border-crossing before being registered in the Country or have drowned in Greek territorial waters, are not included in the national data on the Causes of Death.

### Reference Period

**Reference** 1/1/2018-31/12/2018.

#### Definitions

**Death:** means the permanent disappearance of all evidence of life at any time after live birth has taken place.

Main or underlying cause of death: pursuant to the 10th Revision of the International Classification of Diseases (ICD-10) of the World Health Organisation (WHO), is the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which caused the fatal injury.

**Cause-Specific mortality**: the rate refers to the number of deaths assigned to a specific cause during a given time interval divided by the estimated population in the middle of the year, per 100,000 inhabitants.

# Methodology

Vital statistics data, after having been collected from the Civil Register Offices, undergo the necessary quality checks and then they are processed and tabulated. All causes of death are coded at a central level by a single team of coders to ensure internal coherence. From 2014 onwards, ELSTAT applies the 4-digit ICD-10 Classification of Diseases, 2008 version. The time series up to 2014 are available in the 4-digit ICD-9 Classification of Diseases. Data for the years 2014-2016 are available in both ICD-9 and ICD-10. From 2017 onwards, data will be available only in ICD-10.

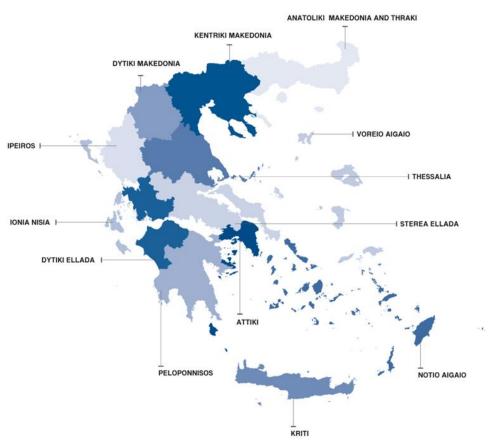
#### Comments

It should be noticed that in Tables 1, 4 and 7, the subcategory "other external causes" of "violent deaths" includes the following: deaths due to misadventures to patients during surgical and medical care, deaths in cases where an investigation by a medical or legal authority has not determined whether the injuries are accidental, suicidal or homicidal, deaths caused by injuries inflicted by law-enforcing agents (including military) on duty while attempting to enforce the law and deaths caused by injuries during war operations

# **Geographical Classification**

Geographical classification is based on the Nomenclature of Territorial Units for Statistics (NUTS).

# Map of the Regions (NUTS2) of Greece



References

More information (tables, methodology) concerning Vital statistics is available on the website of ELSTAT: <a href="https://www.statistics.gr/">https://www.statistics.gr/</a>, at the link Statistics, Population and Social Conditions, Demography, Causes of death.