

Deaths according to cause of death

First half of 2023 (provisional data) and year 2022 (definitive data)

During the first half of 2023, 3760 people died due to COVID-19, 82.1% less than the first half of the previous year

A total of 27.1% of deaths in the first half of the year were due to diseases of the circulatory system, 25.8% to tumors and 11.5% to respiratory system diseases

Provisional results for the first half of 2023

During the first semester of 2023 period, there were 221,462 deaths in Spain, 14,245 less than in the same period of the previous year (6.0% less).

By sex, 111,247 men (a 7.0% decrease) died, and 110,215 women (a 5.0% decrease).

Main causes of death by disease group

The group of *diseases of the circulatory system, tumours and respiratory diseases* were the main causes of death during the first semester of 2023, with 27.1%, 25.8% and 11.5% of the total deaths, respectively.

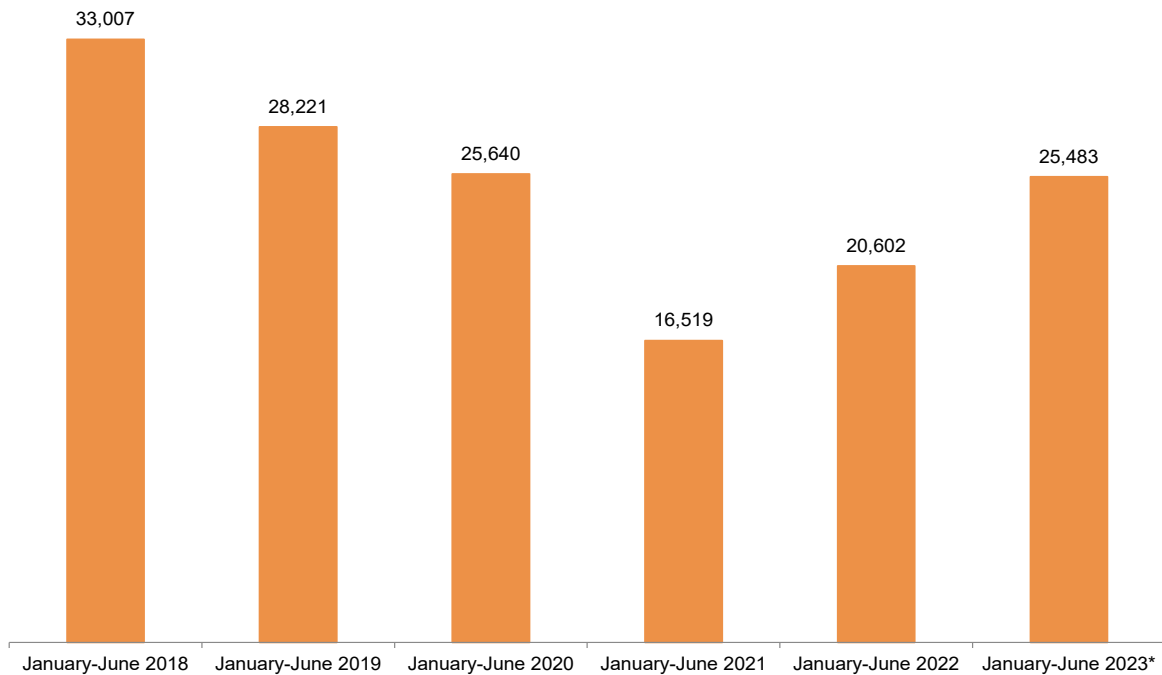
This was followed by *diseases of the nervous system* (5.8% of the total) and *diseases of the nervous system* (5.3%).

Compared to the first half of 2022, the largest increase among the main causes of death occurred in the group of *respiratory diseases* (23.7% more).

The pandemic led to a change in the pattern of causes of death when compared to previous years, affecting respiratory system diseases to a greater extent, which fell significantly. An upward trend began in 2022 and continued in the first half of 2023 (23.7% more than in the same period of the previous year). However, the number of deaths from this cause has not exceeded that recorded in the pre-pandemic period.

Deaths due to respiratory diseases. January to June 2018-2023

Absolute Values



* The 2023 data are temporary

The group that decreased the most was *infectious diseases*, including *COVID-19*, which declined by 69.8% compared to the first half of 2022. Thus, this group is no longer part of the top five causes of death for the first time since 2020.

By sex, the main causes of death among men were *tumours* (33,619 deaths), *diseases of the circulatory system* (28,342) and *respiratory diseases* (13,775).

In women, it was *diseases of the circulatory system* (31,768), *tumours* (23,449) and *respiratory diseases* (11,708).

The group of *respiratory system diseases* recorded the highest increase, both in men (up 18.7%) and in women (30.1%).

Deaths due to *diseases of the circulatory system* showed the greatest decreases among the main causes for both sexes (4.1% less in men and 3.1% less in women).

Most frequent diseases as cause of death

At a more detailed level, *ischaemic heart disease* was the most frequent cause of death in the first six months of 2023, with 13,865 deaths; 6.8% less than the same period in 2022.

That was followed by *cerebrovascular diseases* (with 11,926 deaths, down by 5.3%) and *bronchial and lung cancer* (with 11,225, down by 1.0%).

Among the most frequent diseases, the causes of death that increased the most were *pneumonia* (36.5%), and *chronic diseases of the lower respiratory tract* (14.8%).

The 82.1% decrease in the number of deaths due to *identified COVID-19 virus* compared to the first half of 2022 is noteworthy. This cause has gone from being the disease with the most deaths in 2020, 2021 and 2022, to not being among the 10 most frequent causes of death in the first half of 2023.

By sex, *ischaemic heart disease* was the leading cause of death among men (8,605 deaths), followed by *bronchial and lung cancer* (8,146).

Among women, the most common causes were *dementia* (7,249) and *cerebrovascular diseases* (6,585).

Deaths according to the most frequent causes of death. January to June 2019-2023

Absolute values and percentage change

	January- June 2019	January- June 2020	January- June 2021	January- June 2022	January- June 2023	Variation January-June 2023/2022
All diseases	219,350	264,773	230,558	235,707	221,462	-6.0%
Ischaemic heart disease	15,742	15,394	14,755	14,879	13,865	-6.8%
Cerebrovascular disease	13,284	13,306	12,452	12,598	11,926	-5.3%
Cancer of lung and bronchus	10,980	10,854	10,837	11,339	11,225	-1.0%
Dementia	11,517	10,775	9,337	10,471	10,704	2.2%
Cardiac insufficiency	10,441	10,276	10,134	11,022	10,459	-5.1%
Hypertensive disease	6,392	7,446	7,367	7,523	7,590	0.9%
Acute lower respiratory infections	8,094	7,465	5,366	6,070	6,969	14.8%
Alzheimer disease	7,540	8,382	6,269	6,824	6,636	-2.8%
Diabetes mellitus	5,070	5,884	5,492	5,654	5,666	0.2%
Pneumonia	5,579	5,399	3,153	4,147	5,662	36.5%
Colon cancer	5,714	5,549	5,369	5,421	5,452	0.6%
Cancer of pancreas	3,591	3,658	3,714	3,915	3,977	1.6%
Renal insufficiency	3,847	3,874	3,778	4,265	3,958	-7.2%
Covid-19						
- Covid-19 virus identify	0	33,312	29,300	21,019	3,760	-82.1%
- Covid-19 unidentified virus (1)	0	13,350	501	53	5	-90.6%
Breast cancer	3,167	3,401	3,256	3,323	3,264	-1.8%

(1) Unidentified COVID-19 virus is not among the most frequent causes in the first half of 2023. However, it is included in order to facilitate comparability of deaths from COVID-19.

External causes¹

From January to June 2023, there were 8,444 deaths due to external causes. By sex, 5,359 males and 3,085 females died.

Suicide remained the leading cause of external death, with 1,967 deaths (75.2% of which were men and 24.8% women).

This was followed by *accidental falls* (1,811 deaths), *accidental drowning, submersion and suffocation* (1,794) and *traffic accidents* (760).

The availability of definitive data from the Death Statistics by cause of death requires a complex process of coding the causes reported by the doctor on the death certificate. In the case of deaths due to external causes, the time required to obtain autopsy results which ascertain the definitive cause of death must also be included. For this reason, provisional deaths due to external causes may be underestimated, and it is recommended that the definitive data for the year 2022 be considered for change analysis.

Death statistics according to cause of death - First half of 2023 (provisional data) and year 2022 (definitive data) (3/9)

By sex, the main causes of external death in men were *suicide* (1,480 deaths) and *accidental falls* (984). In women they were *drowning, submersion and suffocation* (868 deaths) and *accidental falls* (827).

Results by Autonomous Communities and Cities

Cantabria, the autonomous city of Melilla and Aragon were the regions with the largest decreases in mortality in the first six months of 2023, with decreases of 13.4%, 12.1% and 9.8%, respectively, compared to the same period of 2022.

Conversely, the smallest decreases were in the Autonomous City of Ceuta (1.0% less), Comunidad de Madrid and Castilla-La Mancha (both 3.7% less).

Looking at the main causes of death, the greatest increases in deaths due to *diseases of the circulatory system* were recorded in Aragon (6.8%), the Autonomous City of Ceuta (2.1%) and Principado de Asturias (1.9%). The largest decreases took place in the Autonomous City of Melilla (-29.1%), Cantabria (-10.3%) and Galicia (-7.8%).

The greatest increases in deaths due to *tumours* occurred in the autonomous city of Melilla, Illes Balears and Aragon (25.6%, 9.8% and 7.1% more, respectively).

The autonomous city of Melilla had the highest increase in deaths due to *respiratory system diseases* (38.9%), followed by Comunidad Foral de Navarra (38.5%) and Cataluña (32.9%).

Deaths according to the main causes of death, by autonomous communities and cities. January to June 2022-2023

Percentage change

	All causes	Circulatory system	Neoplasm	Respiratory system	Nervous system	Digestive system
TOTAL	-6.0%	-3.6%	0.6%	23.7%	-0.8%	1.9%
Andalucía	-6.4%	-7.1%	-0.1%	25.2%	-2.5%	3.1%
Aragón	-9.8%	6.8%	7.1%	-6.7%	29.8%	-1.8%
Asturias, Principado de	-5.4%	1.9%	-2.5%	31.5%	-1.3%	1.0%
Balears, Illes	-5.2%	-5.8%	9.8%	22.3%	4.3%	0.0%
Canarias	-7.2%	-4.6%	-1.3%	4.0%	7.9%	8.1%
Cantabria	-13.4%	-10.3%	-7.0%	14.8%	-1.6%	11.8%
Castilla y León	-8.3%	-6.2%	1.2%	31.2%	-12.4%	-0.9%
Castilla-La Mancha	-3.7%	-3.1%	4.0%	23.0%	6.9%	2.1%
Cataluña	-6.6%	-5.7%	0.5%	32.9%	1.4%	-0.1%
Comunitat Valenciana	-4.8%	0.4%	0.5%	22.3%	3.5%	-4.8%
Extremadura	-7.8%	-7.7%	-7.6%	30.9%	-20.9%	2.0%
Galicia	-5.2%	-7.8%	-0.9%	17.4%	-11.3%	5.3%
Madrid, Comunidad de	-3.7%	0.9%	2.9%	28.3%	-4.7%	7.3%
Murcia, Región de	-8.8%	-5.2%	0.7%	13.1%	-3.0%	0.3%
Navarra, Comunidad Foral de	-3.9%	0.9%	-3.3%	38.5%	11.1%	-3.9%
País Vasco	-6.3%	0.2%	-1.1%	23.1%	-5.0%	2.0%
Rioja, La	-4.7%	-3.1%	1.4%	8.5%	-4.6%	-9.2%
Ceuta	-1.0%	2.1%	-5.5%	11.8%	0.0%	100.0%
Melilla	-12.1%	-29.1%	25.6%	38.9%	-15.4%	-18.8%

Final results for 2022

In 2022, the number of deaths recorded was 464,417, which is 13,673 more than in 2021 (3.0% more).

The *identified COVID-19 virus* was the most frequent cause of death, with 31,606 deaths, 19.9% less than in 2021. The next most common causes were *ischaemic heart disease* with 29,068 deaths (up by 0.7%) and *cerebrovascular disease* with 24,688 deaths (down by 0.7%).

Deaths according to the most frequent causes of death. 2021-2022

Absolute values and percentage change

	2021	2022	Variation 2022/2021
All diseases	450,744	464,417	3.0%
Covid-19 virus identify	39,444	31,606	-19.9%
Ischaemic heart disease	28,852	29,068	0.7%
Cerebrovascular disease	24,858	24,688	-0.7%
Cancer of lung and bronchus	22,413	22,712	1.3%
Dementia	19,650	21,888	11.4%

In 2022, there were 18,574 deaths due to external causes, 1,743 more than in the previous year (up by 10.4%). In terms of gender, 11,701 men died from these causes (9.5% more than in 2021) and 6,873 women (11.9% more).

Suicide remained as the leading cause of external death, with 4,227 deaths, 5.6% more. It was followed by *drowning, submersion and accidental suffocation* (with 4,108 deaths and an increase of 17.2%) and *accidental falls* (with 3,788 deaths, a 3.6% more than in 2021).

By sex, the main causes of death in women were *drowning, submersion and suffocation* (2,012 deaths and an increase of 22.0%), *accidental falls* (1,695, with a decrease of 0.8%) and *suicide* (1,101, up 7.8%).

On the other hand, *suicides* (3,126 deaths), *drowning, submersion and suffocation* (2,096) and *accidental falls* (2,093) were the main causes of external death among women, with increases of 4.8% 13.0% and 7.6%, respectively.

A total of 1,815 people (1,411 men and 404 women) died due to *traffic accidents*, which is 13.5% more than in 2021.

Main causes of external death. 2018-2022 Series

Absolute data and percentage change

	2018	2019	2020	2021	2022	Variation 2022/2021
Suicide	3,539	3,671	3,941	4,003	4,227	5.6%
Drowning, submersion and suffocation	3,090	3,248	2,913	3,504	4,108	17.2%
Accidental falls	3,143	3,297	3,605	3,655	3,788	3.6%
Traffic accidents	1,896	1,842	1,463	1,599	1,815	13.5%

Data reviews and updates

The data for the first semester of 2023 are provisional and will be disseminated as final in the year 2024. The final figures for 2022 are also being published now and the issue "Causes of death two years after the start of the pandemic" of the Cifras INE [INE Figures] collection is updated. All results are available on INEBase.

Methodological note

The Death Statistics according to Cause of Death provides annual information on deaths occurring within the national territory according to the underlying cause, based on the International Classification of Diseases (ICD) of the World Health Organization (WHO). As of 1999, the 10th revision of this classification is used.

This is a harmonised European statistic which is supported by Commission Regulation (EU) No. 328/2011 of 5 April 2011 on statistics on causes of death.

The methodology followed by the INE in the Statistics of deaths by cause of death is based on the detailed analysis of the medical death certificates (CMD). In the case of those who died in the first 24 hours of life, the information from the CMD is complemented by that of the Statistical Birth Bulletin (SBB). The source of information for deaths with legal intervention is the Statistical Legal Death Bulletin completed by the courts or the information directly provided by the Institutes of Legal Medicine and Forensic Sciences (IMLCF). In both cases, the information is provided through a web application designed by the INE.

Type of operation: annual continuous statistics.

Population scope: deaths occurring in the national territory.

Geographical scope: the entire national territory.

Reference period for the results: the calendar year and the semester.

Reference period for the information: date on which death occurs.

Collection method: statistical form based on an administrative act.

For further information, the methodology can be accessed at:

https://www.ine.es/daco/daco42/sanitarias/metodologia_00.pdf

And the standardised methodological report at:

<https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30417>

INE statistics are produced in accordance with the Code of Good Practice for European Statistics, which is the basis for the institution's quality policy and strategy. For more information, see the [Quality at INE and the Code of Best Practices](#) on the INE web page.

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Annex of Final results for 2022

Table Annex link: https://ine.es/prensa/edcm_2022_d.xlsx

Deaths by ICD-10 chapters. 2022

Absolute values and percentages and rates

ICD-10 Chapters	Deaths	%	Rates per 100,000 inhabitants
Total Deaths	464,417	100.0	971.9
Diseases of the circulatory system	121,341	26.1	253.9
Neoplasm	114,828	24.7	240.3
Diseases of respiratory system	43,024	9.3	90.0
Infectious and parasitic diseases (1)	38,589	8.3	80.8
Diseases of nervous system	26,765	5.8	56.0
Diseases of digestive system	23,266	5.0	48.7
Mental and behavioural disorders	22,744	4.9	47.6
External causes	18,574	4.0	38.9
Diseases of the genitourinary system	18,019	3.9	37.7
Endocrine, nutritional and metabolic diseases	15,924	3.4	33.3
Symptoms, signs and abnormal clinical and laboratory findings	10,030	2.2	21.0
Diseases of the musculoskeletal system	5,549	1.2	11.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2,335	0.5	4.9
Diseases of the skin and subcutaneous tissue	2,043	0.4	4.3
Congenital malformations, deformations and chromosomal abnormalities	862	0.2	1.8
Certain conditions originating in the perinatal period	513	0.1	1.1
Pregnancy, childbirth and the puerperium	11	0.0	0.0

¹ Covid-19 is included in the group of infectious and parasitic diseases

Main causes of death by age. 2022

Percentage over the total of deaths

	All ages	Less than 1 year	From 1 to 14 years	From 15 to 39 years	From 40 to 79 years	From 80 years and more
Total Deaths	100.0	100.0	100.0	100.0	100.0	100.0
Diseases of the circulatory system	26.1	1.8	6.0	11.3	21.1	29.5
Neoplasm	24.7	2.1	25.3	20.2	40.6	15.4
External causes	4.0	1.5	20.5	45.4	5.2	2.5
Perinatal and congenital malformations	0.3	77.9	9.9	1.6	0.3	0.0
All other cases	44.9	16.7	38.3	21.6	32.8	52.5

Deaths according to the most frequent causes of death. 2022

Absolute Values

	Total	Men	Women
All diseases	464,417	234,362	230,055
Covid-19 virus identify	31,606	16,708	14,898
Ischaemic heart disease	29,068	17,981	11,087
Cerebrovascular disease	24,688	10,842	13,846
Cancer of lung and bronchus	22,712	16,747	5,965
Dementia	21,888	7,035	14,853
Cardiac insufficiency	20,584	8,175	12,409
Hypertensive disease	14,865	4,913	9,952
Alzheimer disease	13,999	3,972	10,027
Acute lower respiratory infections	12,311	8,584	3,727
Colon cancer	11,142	6,443	4,699
Diabetes mellitus	11,063	5,016	6,047
Pneumonia	8,776	4,654	4,122
Renal insufficiency	8,117	3,632	4,485
Cancer of pancreas	7,973	4,006	3,967
Breast cancer	6,754	77	6,677

External causes by age and sex. 2022

Absolute Values

		All ages	Less than 20 years	From 20 to 39 years	From 40 to 64 years	From 65 years and more
Suicide	Total	4,227	87	702	2,144	1,294
	Men	3,126	53	516	1,608	949
	Women	1,101	34	186	536	345
Drowning, submersion and suffocation	Total	4,108	79	152	478	3,399
	Men	2,096	64	128	346	1,558
	Women	2,012	15	24	132	1,841
Accidental falls	Total	3,788	31	117	486	3,154
	Men	2,093	24	94	404	1,571
	Women	1,695	7	23	82	1,583
Traffic accidents	Total	1,815	93	467	745	510
	Men	1,411	68	385	622	336
	Women	404	25	82	123	174

Crude death rates and standardised rates of the main causes of death, by Autonomous Community and city of residence. 2022

Rates per 100,000 inhabitants

	All causes		Circulatory system		Neoplasm		Respiratory system	
	Crude Rate	Standardised Rate	Crude Rate	Standardised Rate	Crude Rate	Standardised Rate	Crude Rate	Standardised Rate
TOTAL	971.87	844.67	253.93	215.56	240.30	221.09	90.03	76.57
Andalucía	923.78	955.65	258.41	268.67	224.63	230.27	80.38	83.55
Aragón	1151.97	844.81	316.16	219.06	279.83	230.89	95.82	67.34
Asturias, Principado de	1385.96	870.62	363.89	217.45	350.47	245.67	107.81	63.57
Baleares, Illes	777.66	874.65	200.67	226.14	201.92	226.61	65.25	74.17
Canarias	850.81	935.90	225.16	249.84	215.02	228.49	98.30	110.74
Cantabria	1152.97	848.25	289.14	203.78	291.86	234.83	118.93	83.53
Castilla y León	1303.43	774.60	330.76	181.52	316.22	219.31	114.77	62.83
Castilla-La Mancha	991.75	827.87	256.76	207.68	231.90	212.23	102.89	82.21
Cataluña	902.79	806.86	223.79	194.94	222.96	212.41	79.15	69.49
Comunitat Valenciana	965.41	894.37	263.18	242.36	241.89	227.09	81.86	75.59
Extremadura	1173.50	906.43	319.55	237.71	279.76	235.00	120.41	89.54
Galicia	1298.01	816.53	352.25	209.35	314.12	225.15	132.34	77.12
Madrid, Comunidad de	751.43	701.14	176.73	161.16	196.22	194.14	90.15	82.05
Murcia, Región de	854.23	949.62	235.16	261.98	202.44	225.83	72.57	80.92
Navarra, Comunidad Foral de	945.19	779.17	224.89	177.72	235.06	212.46	85.59	68.56
País Vasco	1094.63	804.03	260.73	184.80	288.37	230.91	70.51	49.94
Rioja, La	1079.30	819.73	301.92	219.41	262.03	222.05	99.70	72.12
Ceuta	740.49	1097.92	203.48	307.35	160.14	218.20	75.86	121.48
Melilla	567.99	961.71	163.12	288.41	116.18	172.64	59.85	108.50