

19 December 2019

Deaths according to cause of death Year 2018

Mortality rate increased in 2018 by 0.3% compared to the previous year

28.3% of deaths in 2018 were due to circulatory system diseases of (most common cause of death in women) and 26.4% by tumours (most common cause in men)

In 2018 there were 427,721 deaths in Spain, 3,198 more than in the previous year (0.8% more). By sex, 216,442 men died (1.0% more than in 2017) and 211,279 women (0.5% more).

The crude mortality rate stood at 915.3 deaths per 100,000 inhabitants, an increase of 0.3 per cent from the previous year. The male rate was 944.7 deaths per 100,000 men (with an increase of 0.7%) and the female rate was 887.1 per 100,000 women (remaining stable compared to 2017).

96.3% of deaths were due to natural causes (diseases). In 2018, 411,953 people died from these causes, 0.8% more than in 2017.

Main causes of death by disease group¹

Diseases of the circulatory system were again the leading cause of death, with 28.3% of the total (and a rate of 258.6 deaths per 100,000 inhabitants), followed by *tumours*, with 26.4% of the total (and a rate of 241.2), and *diseases of the respiratory system*, with 12.6% (and a rate of 114.9).

Compared with the previous year, deaths due to *diseases of the respiratory system* increased by 4.0%. On the other hand, deaths due to *circulatory system diseases* and those caused by *tumours* decreased by 1.3% and 0.5%, respectively.

By sex, *tumours* were the leading cause of death in men (with 297.8 deaths per 100,000) and the second in women (with 186.7 deaths per 100,000 women). The number of deaths due to this cause decreased in both sexes; by 0.4% in men and by 0.6% in women.

On the other hand, *circulatory system diseases of* were the first cause of female mortality (272.5 deaths per 100,000) and the second among males (244.3). Deaths due to these causes decreased by 2.1% in women and 0.4% in men.

In the case of respiratory system diseases, deaths due to this cause increased by 5.0% in women and 3.2% in men.

¹ Chapters of the WHO International Classification of Diseases 10th revision (ICD-10).

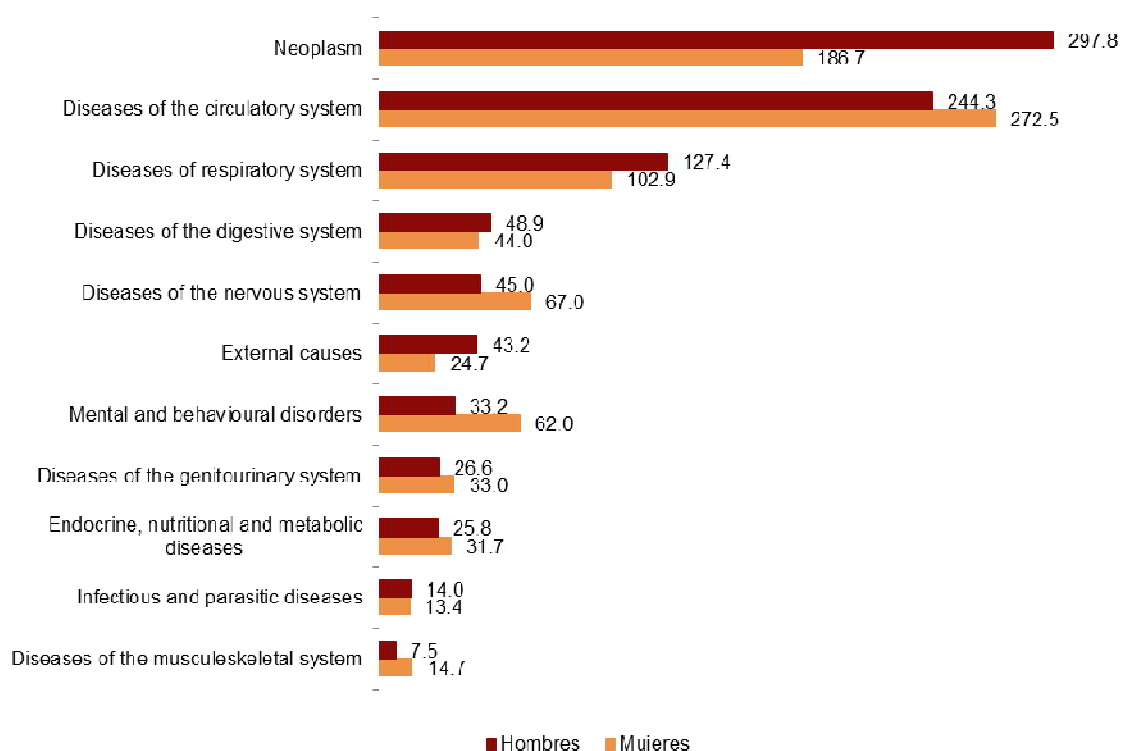
Deaths by ICD-10 chapters. 2018

Absolute values and percentages

ICD-10 Chapters	Deaths	%
Total Deaths	427,721	100.0
Diseases of the circulatory system	120,859	28.3
Neoplasm	112,714	26.4
Diseases of respiratory system	53,687	12.6
Diseases of nervous system	26,279	6.1
Mental and behavioural disorders	22,376	5.2
Diseases of digestive system	21,689	5.1
External causes	15,768	3.7
Diseases of the genitourinary system	13,941	3.3
Endocrine, nutritional and metabolic diseases	13,465	3.1
Symptoms, signs and abnormal clinical and laboratory findings	10,088	2.4
Infectious and parasitic diseases	6,398	1.5
Diseases of the musculoskeletal system	5,205	1.2
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1,946	0.5
Diseases of the skin and subcutaneous tissue	1,826	0.4
Congenital malformations, deformations and chromosomal abnormalities	843	0.2
Certain conditions originating in the perinatal period	630	0.1
Pregnancy, childbirth and the puerperium	7	0.0

Deaths by cause of death by ICD-10 chapters and sex. 2018

Crude rates per 100,000 inhabitants



Main causes of death by age

Among children under one year of age, eight out of ten deaths were due to *perinatal conditions* and *congenital malformations* (57.9% and 22.0%, respectively).

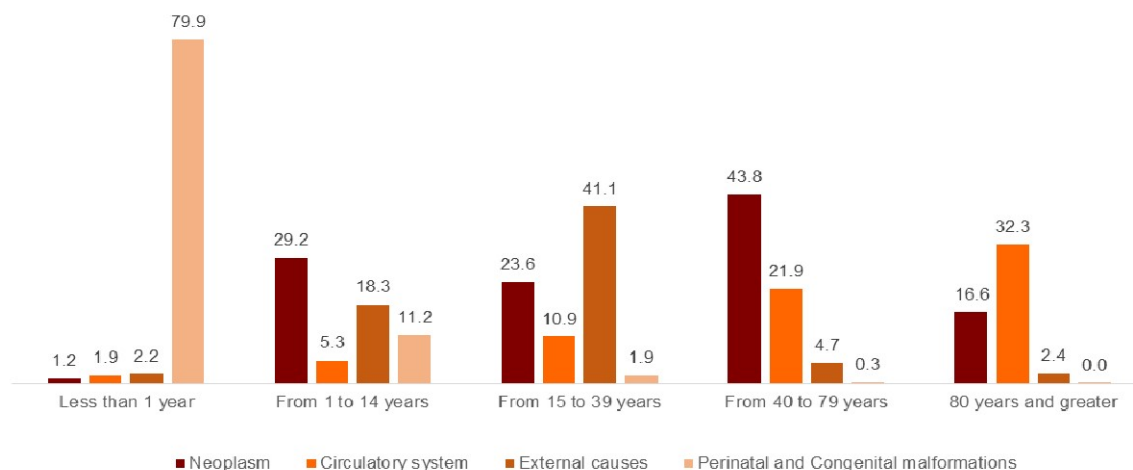
Tumours were the leading cause of death in the people aged between 1 and 14 years old (29.2% of the total) and between 40 and 79 years (43.8%). The second cause of death for people from 1 to 14 years old was *external causes* (18.3% of the total), while for 40 to 79 years old it was *circulatory system diseases* (21.9%).

On the other hand, the main causes of death among persons aged 15 to 39 years old were *external causes* (41.1% of the total) and *tumours* (23.6%).

Finally, among those over 79 years of age, *diseases of the circulatory system* (32.3% of the total) and *tumours* (16.6%) were the main causes.

Main causes of death according to age. 2018

Percentage of the total number of deaths



Most frequent diseases as cause of death

In more detail, among *circulatory diseases*, *ischaemic heart diseases* (heart attack, angina pectoris, etc.) returned to the first place in number of deaths, although with a decrease of 3.6% compared to the previous year. It was followed by *cerebrovascular diseases*, which fell as well (in this case by 1.9%).

By sex, *ischaemic heart diseases* were the first cause of death in men, causing 3.7% less deaths than in 2017. Among women were *cerebrovascular diseases* (with a decrease of 2.6%).

The *tumours* responsible for the highest mortality were again *bronchial and lung cancer* (although with an increase of 0.3% compared to 2017) and *colon cancer* (which caused 1.2% less deaths).

By sex, these types of cancer were the most common among men. The number of deaths due to *bronchial and lung cancer* fell by 0.3%, while *colon cancer* caused 1.6% more deaths.

Among women, the cancer with the highest mortality was *breast cancer* (with 0.7% more deaths than in 2017), followed by *bronchial and lung cancer* (2.1% more).

Among the most frequent causes, the greatest increase in the number of deaths compared to 2017 occurred in *dementia* (2.4% higher in men and 3.3% higher in women).

Deaths according to the most frequent causes of death¹. 2018

	Total	Men	Women
All diseases	427,721	216,442	211,279
Ischaemic heart disease	31,152	18,423	12,729
Cerebrovascular disease	26,420	11,435	14,985
Cancer of lung and bronchus	22,133	17,181	4,952
Dementia	21,629	7,144	14,485
Cardiac insufficiency	19,142	7,266	11,876
Alzheimer disease	14,929	4,454	10,475
Acute lower respiratory infections	14,607	10,594	4,013
Hypertensive disease	12,496	4,108	8,388
Colon cancer	11,265	6,690	4,575
Pneumonia	10,415	5,430	4,985
Diabetes mellitus	9,921	4,407	5,514
Cancer of pancreas	7,132	3,299	3,833
Renal insufficiency	7,120	3,745	3,375
Breast cancer	6,621	87	6,534
Prostate cancer	5,841	5,841	0

¹ Causes with relative weight greater than 1.4%

External causes

In 2018 there were 15,768 deaths due to *external causes*, 69 less than in the previous year (0.4%). By sex, 9,893 men died from these causes (0.3% more than in 2017) and 5,875 women (0.7% less).

Suicide remained as the leading cause of external death, with 3,539 deaths, 3.8% less than in 2017.

It was followed by *accidental falls* (with 3,143 deaths and an increase of 2.8%) and *drowning, submersion and suffocation* (with 3,090 and a decrease of 0.8%).

A total of 1,896 people died due to *traffic accidents*, which is 2.4% less than in 2017. Among the people who died in traffic accidents, 475 were pedestrians (4.6% more than in 2017). It should be noted that 44.6% of them were 70 or older.

By sex, the main causes of external death in men were *suicide* (2,619 deaths), *accidental falls* (1,693) and *drowning, submersion and suffocation* (1,630). And in women *accidental falls* (1,450 dead), *drowning, submersion and suffocation* (1,460) and *suicides* (920).

Multiple causes of death

In order to interpret the results of *multiple causes of death*, it is necessary to start from the definition of *underlying cause of death*: illness or injury that initiates the chain of pathological events that lead directly to death.

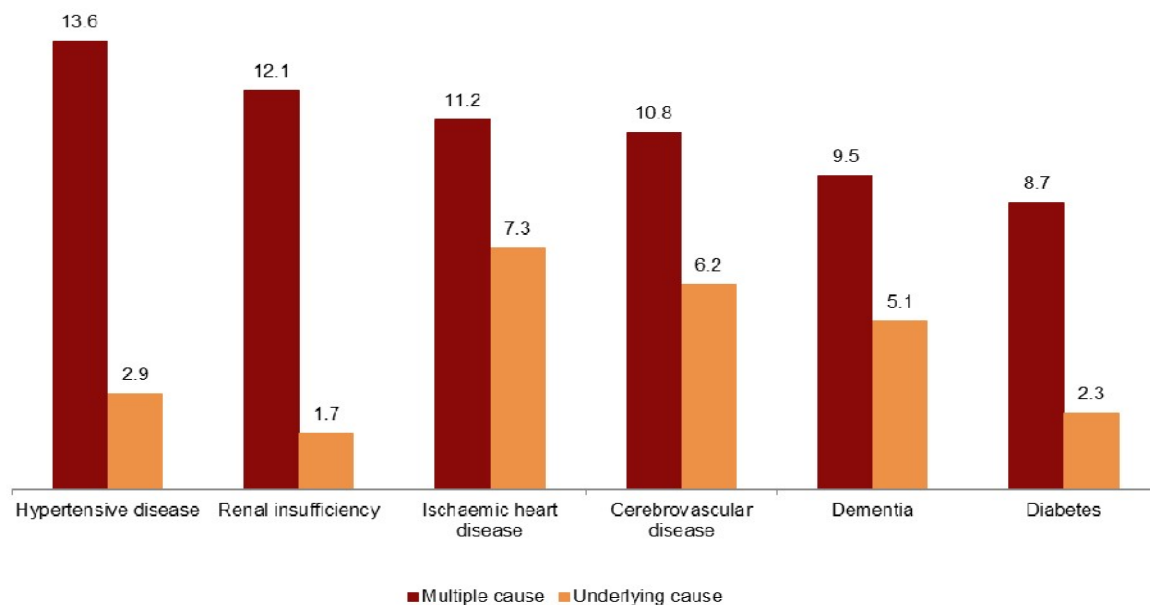
These pathological events are the so-called *multiple causes* and therefore refer to the set of diseases described in the medical death certificate and which contribute to or are associated with the death. In 2018, an average of 3.6 diseases were reported in each certificate.

The most frequent multiple cause was *hypertensive disease*, which contributed to 13.6% of deaths, though in only 2.9% of the cases it was the triggering cause, that is, the main cause.

This was followed by *renal failure* and *ischaemic heart diseases* as the most frequent multiple causes, contributing to death in 12.1% and 11.2% of cases, respectively. *Renal failure* was the underlying cause of 1.7% of deaths and *ischaemic heart diseases* in 7.3%.

Most frequent multiple causes

Percentage of multiple causes and main cause



Among the most frequent multiple causes, the diseases that presented the greatest difference between their contribution as a multiple cause and as an underlying cause were *hypertensive diseases*, *renal failure* and *diabetes*. The latter was reported as multiple cause in 8.7% of deaths and as underlying cause in 2.3%.

Mortality rates of the main causes by Autonomous Communities and Cities

The highest crude death rates per 100,000 inhabitants in 2018 corresponded to Principado de Asturias (1,292.5), Castilla y León (1,215.5) and Galicia (1,201.1). In turn, the lowest rates were recorded in the autonomous cities of Melilla (609.7) and Ceuta (629.8), and in Illes Balears (697.9).

Crude death rates were higher in the areas with a greater elderly population, since there are usually more deaths due to the effect of the age structure of the population. To correct this, the standardised mortality rates² are calculated which represent mortality in the Autonomous Community if all of them had the same age composition.

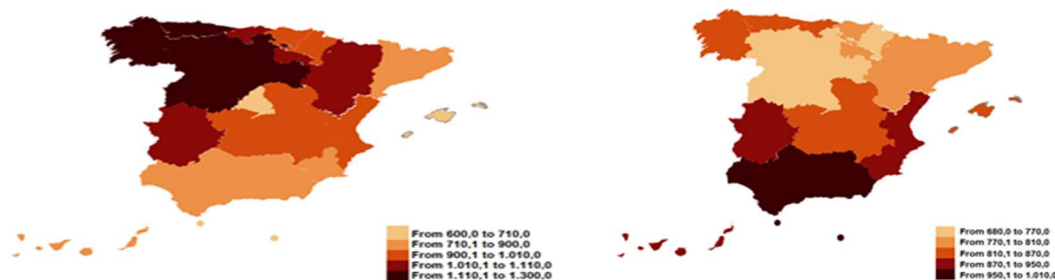
In this case, the regions with the highest standardised rates were the autonomous cities of Melilla (1,009.2) and CEUTA (952.6) and Andalucía (953.6). In turn, the lowest standardised rates were recorded in Comunidad de Madrid (689.0), Castilla y León (757.1) and the Comunidad Foral de Navarra (761.8).

Crude mortality rates

Deaths per 100,000 inhabitants

Standardized mortality rates

Deaths per 100,000 inhabitants



In terms of the main causes of death, the highest crude mortality rates from *diseases of the circulatory system* were recorded in Principado de Asturias (379.0 deaths per 100,000 inhabitants), Galicia (357.6) and Castilla y León (341.8).

When considering standardised rates, Andalucía recorded the highest mortality rate from *circulatory system diseases* (300.4), followed by the autonomous cities of Melilla and Ceuta (277.9 and 273.5, respectively).

The highest death rates from *tumours* were recorded in Principado de Asturias (355.5 deaths per 100,000 inhabitants), Castilla y León (322.9) and Galicia (312.9).

On the other hand, the highest standardised mortality rates due to *tumours* were registered in Principado de Asturias (262.9), Extremadura (258.1) and the Autonomous City of Melilla (250.9).

Diseases of the respiratory system were the third leading cause of death in all the Autonomous Communities. The highest crude death rates due to these diseases were registered in Castilla y León (161.9 deaths per 100,000 inhabitants), Principado de Asturias (157.4) and Galicia (157.2).

² As of 2015, the European standard population is considered as the standard population.

On the other hand, Extremadura recorded the highest standardised mortality rate due to *diseases of the respiratory system* (127.7), followed by Región de Murcia (123.3) and the autonomous city of Melilla (116.7).

Crude death rates and standardised rates of the main causes of death, by autonomous community and city of residence. 2018

Rate per 100,000 inhabitants

	Circulatory System		Neoplasm		Respiratory System	
	Crude Rate	Standardised Rate	Crude Rate	Standardised Rate	Crude Rate	Standardised Rate
TOTAL	258.6	230.5	241.2	230.9	114.9	101.8
Andalucía	270.1	300.4	217.2	235.6	99.6	110.7
Aragón	326.2	230.9	274.4	232.5	122.6	86.7
Asturias, Principado de	379.0	244.3	355.5	262.9	157.4	98.0
Balears, Illes	196.6	233.1	195.4	227.1	73.9	88.4
Canarias	212.4	256.5	206.4	235.7	104.7	127.7
Cantabria	273.7	204.3	293.8	249.2	134.3	99.4
Castilla y León	341.8	199.8	322.9	232.3	161.9	91.4
Castilla-La Mancha	262.0	213.8	242.8	226.9	139.7	112.6
Cataluña	230.6	205.7	234.9	228.2	105.5	93.7
Comunitat Valenciana	263.0	252.0	235.7	228.6	111.7	107.0
Extremadura	309.3	246.9	289.5	258.1	141.8	112.5
Galicia	357.6	231.4	312.9	237.9	157.2	99.5
Madrid, Comunidad de	177.1	168.8	197.2	203.0	105.0	99.5
Murcia, Región de	217.3	254.5	189.4	219.0	105.6	123.3
Navarra, Comunidad Foral de	239.0	195.6	240.8	221.5	104.8	84.1
País Vasco	266.7	201.2	292.7	243.7	107.2	79.4
Rioja, La	315.0	231.5	271.5	236.7	116.7	84.8
Ceuta	171.9	273.5	158.9	220.8	62.4	98.5
Melilla	158.3	277.9	160.7	250.9	68.5	116.7

Review and update of data

The data published today is final. All the results are available at 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.

Data on causes of death are collected in three model statistical questionnaires: Medical Death Certificate/Statistical Death Bulletin (MDC/SDB), Judicial Statistical Death Register (JSDR) and the Statistical Birth Bulletin (SBB). The first collects the data of the deceased due to natural causes without the need for the intervention of a judge, while the second is aimed at obtaining the information of the deceased due to causes that require judicial intervention because there are indications of possible accidental or violent causes. In the case of those who die before 24 hours of life, the data are also collected through the SBB.

Type of operation: annual continuous statistics.

Population scope: deaths occurring in the national territory.

Geographical scope: the entire national territory.

Reference period of the results: the calendar year.

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

Collection method: statistical form based on an administrative act.

For more information you can access the methodology at:

https://www.ine.es/en/daco/daco42/sanitarias/metodologia_00_en.pdf

And the standardised methodological report at:

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

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Press office: Telephone numbers: (+34) 91 583 93 63 /94 08 – gprensa@ine.es

Information Area: Telephone number: (+34) 91 583 91 00 – www.ine.es/infoine/?L=1
