Instituto Nacional de Estadística

Press Release

27 February 2015

**Deaths according to Cause of Death**
Year 2013

# The gross mortality rate stands at 837.9 deaths per 100,000 inhabitants, that is, 2.7% less as compared to the previous year

# The number of deaths decreases 3.1% as compared to 2012

# Tumours are the first cause of death among males and diseases of the circulatory system are the first cause among females

390,419 deaths were recorded in Spain in 2013, that is, 12,531 less than those registered in 2012 (–3.1% in relative terms). This decrease was partly due to the increase of deaths caused by respiratory diseases registered in 2012.

By sex, 199,834 men (3.0% less than in 2012) and 190,585 women (3.3% less) died.

The gross mortality rate stood at 837.9 deaths per 100,000 inhabitants, 2.7% less than in the previous year. The female rate stood at 805.5 deaths per 100,000 women (–3.1%) and at 871.4 per 100,000 men (–2.4%).

The majority of deaths were caused by natural causes (illnesses). In 2013, 375,741 deaths were recorded from these causes, representing 96.2% of the total. This figure was 3.4% lower than that of the previous year.

## Causes of death, by groups of illnesses[1]

The group of *diseases of the circulatory system* remained the first cause of death (with a rate of 252.1 deaths per 100,000 inhabitants) followed by *tumours* (238.3) and *respiratory diseases* (91.4). The group of *diseases of the nervous system*, which includes *Alzheimer*, was the fourth cause of deaths (46.1).

By sex, *tumours* were the first cause of death among males (with a rate of 295.2 deaths per 100,000) and the second among females (183.1).

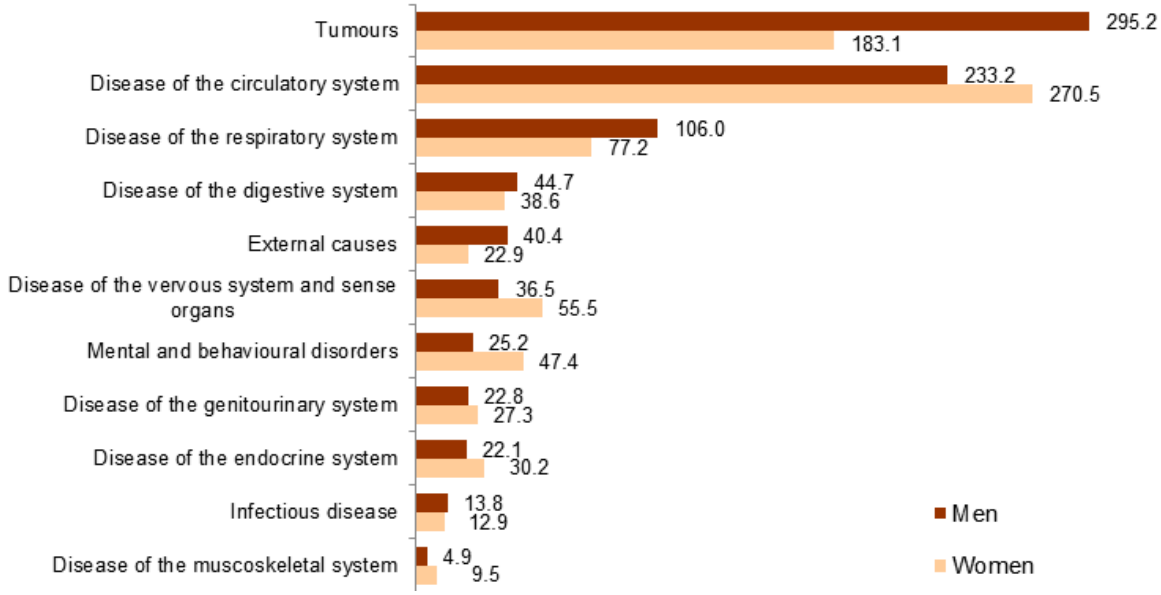
In turn, *diseases of the circulatory system* were the first cause of death among females (270.5 deaths per 100,000 inhabitants) and the second among males (233.2).

[1] Chapters of the International Classification of Diseases (ICD-10), tenth revision of the WHO.

## Distribution by chapters of the International Classification of Diseases. Year 2013

| Chapters of the ICD-10 | No. of deaths | % |
|---|---|---|
| **Total deaths** | 390,419 | 100.0 |
| Diseases of the circulatory system | 117,484 | 30.1 |
| Tumours | 111,021 | 28.4 |
| Diseases of the respiratory system | 42,565 | 10.9 |
| Diseases of the nervous system and of the sense organs | 21,486 | 5.5 |
| Diseases of the digestive system | 19,378 | 5.0 |
| Mental and behavioural disorders | 16,977 | 4.3 |
| External causes of death | 14,678 | 3.8 |
| Endocrine, nutritional and metabolic diseases | 12,206 | 3.1 |
| Diseases of the genitourinary system | 11,689 | 3.0 |
| Symptoms, signs and abnormal clinical and laboratory findings | 8,947 | 2.3 |
| Infectious and parasitic diseases | 6,209 | 1.6 |
| Diseases of the musculoskeletal system and connective tissue | 3,361 | 0.9 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 1,639 | 0.4 |
| Diseases of the skin and subcutaneous tissue | 1,290 | 0.3 |
| Congenital malformations, deformations and chromosomal abnormalities | 758 | 0.2 |
| Disorders originating in the perinatal period | 713 | 0.2 |
| Pregnancy, childbirth and the puerperium | 18 | 0.0 |

## Gross rates per 100,000 inhabitants according to cause of death by ICD-10 chapters and sex. Year 2013

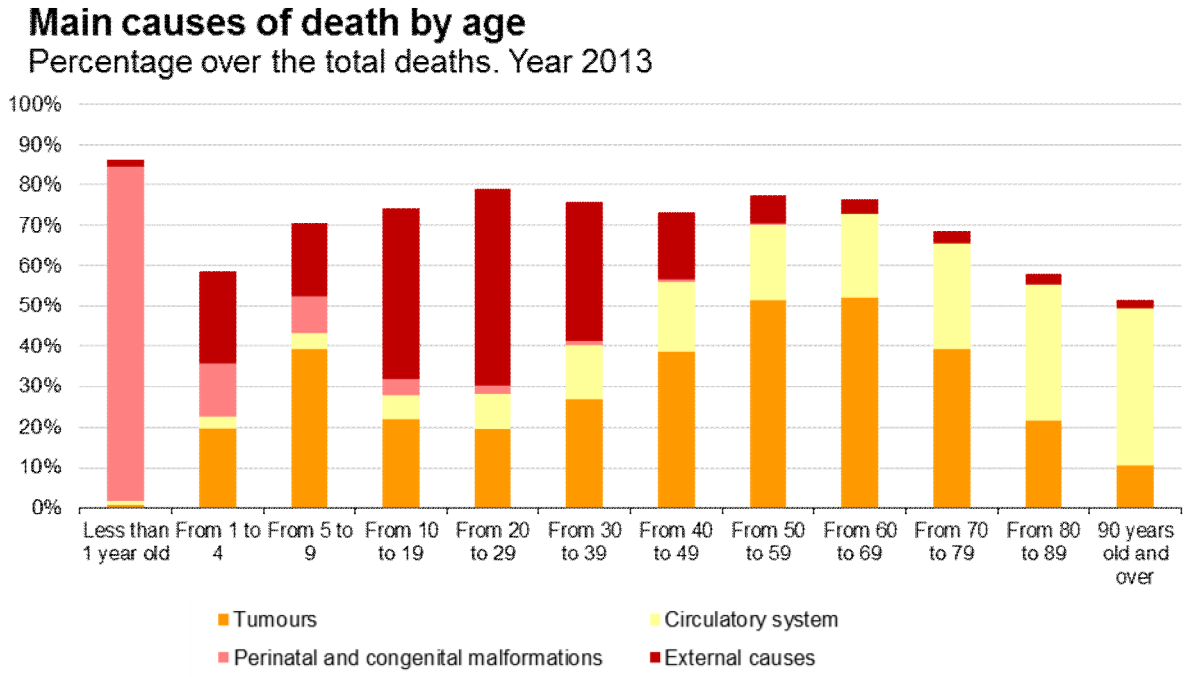


By age, the main cause of death in children aged less than one year old were *perinatal conditions*, with a rate of 162.8 deaths per 100,000 live births.

In persons aged one to four and 10 to 39 years old the main cause were *external causes* (accidents, homicides, suicides…), with rates of 3.4 and 13.0 deaths per 100,000 persons of these age groups, respectively.

Among the persons aged five to nine and 40 to 79 years the main cause of death were *tumours* (rates of 3.5 and 390.3 per 100,000 persons, respectively).

For the group of persons older than 79 years old the main cause was the group of *diseases of the circulatory system* (3,147.3 deaths per 100,000 persons).




## Most common diseases causing deaths

On a more detailed level, within the group of *circulatory diseases, ischaemic heart diseases* (heart attack, angina pectoris etc.) occupied the first place in the number of deaths, although they registered a decrease of 3.9% as compared with the previous year. They were followed by *cerebrovascular diseases,* which registered a decrease of 5.7%.

By sex, *ischaemic heart diseases* were the leading cause of death in males and *cerebrovascular diseases* were the main cause in females.

Among *tumours*, those causing the greatest mortality were *bronchial and lung cancer* and *colon cancer* (which increased by 0.8% and 0.7%, respectively). By sex, both were the cancers causing the largest number of deaths among males (–0.6% and 0.1%, respectively). In turn, among females, it was *breast cancer* (with an increase of 3.1%), followed by *bronchial and lung cancer* (7.3%).

*Dementias*[2] caused 16,305 deaths and *Alzheimer's disease* caused 12,775. They occupied the fifth and the seventh place in terms of most frequent causes of death in Spain in 2013. In both diseases it was worth noting the excess mortality registered among females. In fact, out of 10 deaths due to these two causes, seven were women.

Among the most frequent diseases, those registering decreases in their mortality rates were respiratory diseases: *pneumonia* (–10.3%) and *chronic diseases of the lower respiratory tracts* (–9.3%). In 2012, it was worth noting the increase in the number of deaths caused by these diseases.

**Number of deaths according to the most common (*) causes of death**

| **Year 2013** | Total | Men | Women |
|---|---|---|---|
| **Total deaths** | **390,419** | **199,834** | **190,585** |
| Ischaemic heart diseases | 33,413 | 19,402 | 14,011 |
| Cerebrovascular diseases | 27,850 | 11,593 | 16,257 |
| Bronchial and lung cancer | 21,664 | 17,559 | 4,105 |
| Heart failure | 16,888 | 6,136 | 10,752 |
| Dementia | 16,305 | 5,332 | 10,973 |
| Chronic lower respiratory diseases (CLRD) | 15,387 | 11,377 | 4,010 |
| Alzheimer's disease | 12,775 | 3,843 | 8,932 |
| Colon cancer | 11,850 | 6,944 | 4,906 |
| Hypertensive diseases | 11,243 | 3,648 | 7,595 |
| Diabetes mellitus | 9,391 | 3,985 | 5,406 |
| Pneumonia | 8,333 | 4,317 | 4,016 |
| Renal failure | 6,836 | 3,188 | 3,648 |
| Breast cancer | 6,589 | 112 | 6,477 |
| Pancreatic cancer | 6,039 | 3,169 | 2,870 |
| Prostate cancer | 5,787 | 5,787 | - |

(*) Causes with a relative weight greater than 1.5%

## External causes

In 2013, 14,678 deaths were registered due to external causes. It is worth noting that a methodological improvement has been introduced in the statistical process, thanks to a new source of legal information. This made it possible to determine more accurately the cause of those deaths requiring judicial intervention. As a consequence, since 2013 deaths assigned to ill-defined causes have been reassigned to specific external causes. **The improvement introduced in 2013 make said year's series not directly comparable to those from the previous years**[3].

[2] It includes vascular dementia and others, such as senile dementia. However, it does not include Alzheimer dementia, which is considered within the group of diseases of the nervous system.

[3] In the statistics for the year 2013, information on external causes (accidents, suicides, homicides, etc.) for the Autonomous Community of Madrid has been recovered from data of the Forensic Institute of Madrid. Thus, figures from this epigraph are not directly comparable with those from the previous years.

*External causes* (accidents, suicides, homicides…) were the main cause of four out of 10 deaths of persons aged between 10 and 39 years old.

In 2013, 3,870 persons (2,911 men and 959 women) died due to *suicide*, standing, once again, as the main *external cause* of death. As it was mentioned before, **this figure is not comparable with those from previous years**[4] thanks to the improvement introduced.

The *suicide* rate stood at 8.3 deaths per 100,000 inhabitants (12.7 in men and 4.1 in women).

*Accidental falls* were the second main external cause of death (with 2,672 deaths) and *accidental drowning, submersion and suffocation* was the third (2,208).

1,807 persons died due to *traffic accidents*. It stood as the fifth cause of death among *external causes* due to the decrease registered in the previous years. In 2007, it was the first.

## Mortality rates by Autonomous Community

The highest gross death rates per 100,000 inhabitants in 2013 corresponded to Principado de Asturias (1,196.9), Galicia (1,105.4) and Castilla y León (1,097.5).

In turn, the lowest mortality rates were recorded in the Autonomous Cities of Melilla (551.1) and Ceuta (628.4) and in the Autonomous Communities of Canarias (646.0) and Comunidad de Madrid (663.1).

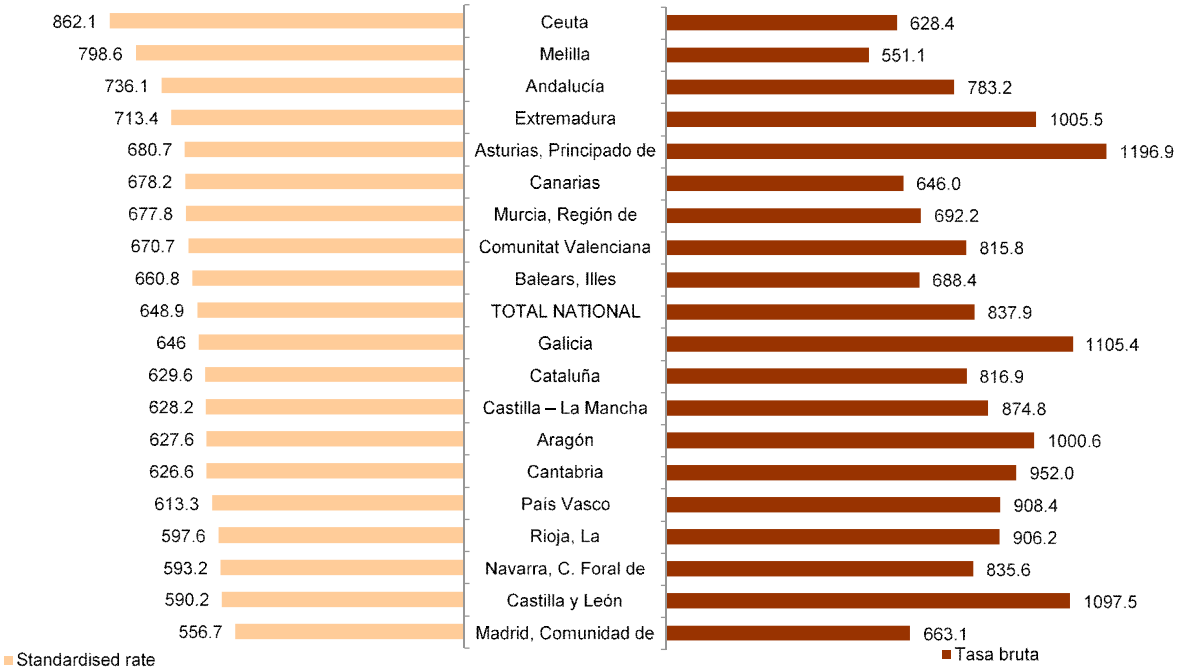
Gross death rates were higher in ageing territories, as there were more deaths due to the age structure. In order to adjust the results, standardised rates representing mortality in Autonomous Communities if all of them had the same age composition are calculated.

After conducting this adjustment, the regions with the highest standardised rates were the Autonomous Cities of Ceuta (862.1) and Melilla (798.6), and the Autonomous Communities of Andalucía (736.1) and Extremadura (713.4).

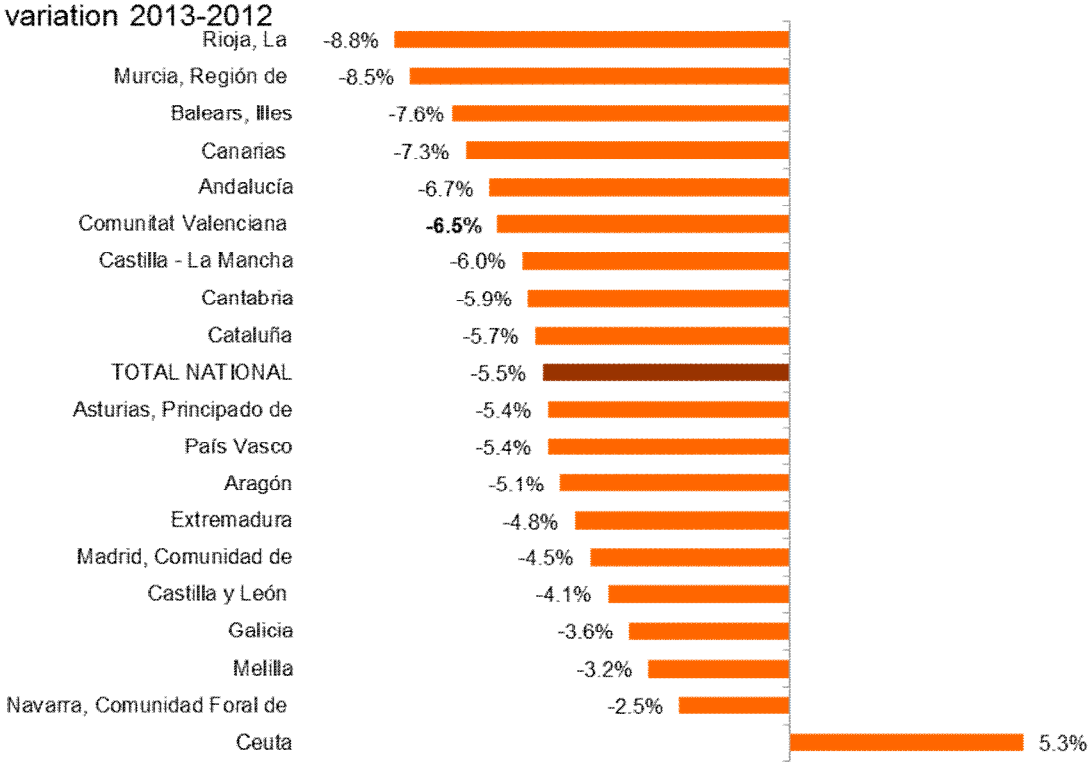
Mortality decreased in all Autonomous Community, except for the Autonomous City of Ceuta, where the standardised rate increased by 5.3%. The Autonomous Communities where said rate decreased were La Rioja (–8.8%) and Región de Murcia (–8.5%).

[4] Extrapolating the information recovered from the statistics for the year 2013, the variation rate of the number of suicides would be estimated in 2.7%.

**Mortality rates by residence Autonomous Community.**
Year 2013

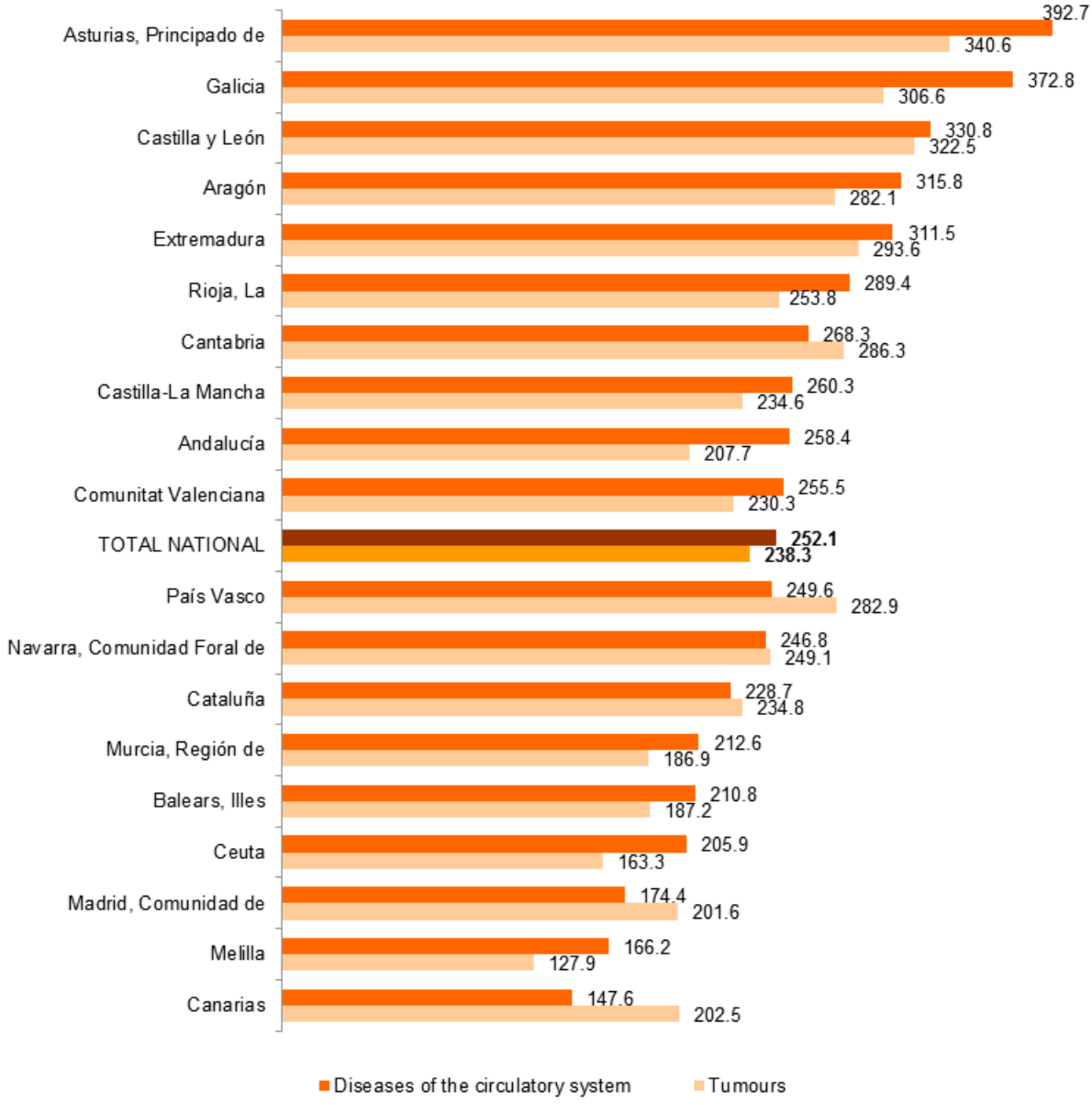



**Evolution of the standardised mortality rate by Autonomous Community of residence.** Year-on-year variation 2013-2012



The main cause of death in all Autonomous Communities were *diseases of the circulatory system,* except for Canarias, Cantabria, Cataluña, Comunidad de Madrid, Comunidad Foral de Navarra and País Vasco, where the main cause of death were *tumours.*

**Gross mortality rates per 100,000 inhabitants of the two leading causes of death(*).** Year 2013



# Methodological note

The Death Statistics according to Cause of Death provides annual information on deaths which have occurred in the country dealing, by basic cause of death, in accordance with the International Classification of Diseases (ICD) of the World Health Organisation (WHO). The 10th revision of this classification has been used since 1999.

This harmonised European Statistics is conducted in accordance with the Commission Regulation (EU) No 328/2011 of 5 April 2011 on Statistics according to Cause of Death.

In accordance with the recommendations of the WHO, the classification of causes of death is investigated and tabulated depending of the **basic cause of death.** This is defined as the *illness or injury which started the chain of pathological events which directly led to death. When the cause is a traumatic injury, the basic cause is considered to be the circumstances of the accident or violence which produced the fatal injury.* To be exact, this set or chain of illnesses is what the doctor certifying the death must provide in the statistical bulletin. Starting with these causes, named by the WHO as *immediate, intermediate, initial or fundamental and other processes,* and in accordance with the international regulations established in the ICD for selecting the basic cause, the latter is reached.

Data on causes of death is collected in three statistical questionnaire models: Medical Death Certificate/Statistical Death Register (CMD/BED), Judicial Statistical Death Register (BEDJ) and the Statistical Bulletin of Infants who died within 24 hours (BEP). The first one collects data on deaths due to natural causes, without requiring the intervention of a judge, whereas the second is directed at obtaining information on deaths due to causes requiring judicial intervention, since there are signs of a possible accidental or violent cause; both contain data on deaths among those who have lived more than 24 hours. Deaths occurring within 24 hours of life are collected in the BEP.

The sections in the bulletins containing the causes of death are different in both models. In the CMD/BED, 4 causes are described, which form the chain of illnesses which led to death, in the BEP only two are shown, one relating to the mother and another to the foetus, and in the BEDJ the external circumstances that caused the death are shown.

These statistics provide information on mortality by dealing with the basic cause of death, its distribution by sex, age, residence and month of death. It also offers indicators that enable the drawing of comparisons on an Autonomous Community level and large groups of causes of death.