

Causes of death

2016

The average age at time of death was 73.1 for malignant neoplasms and 81.1 for diseases of the circulatory systema

In 2016, there were 110,970 deaths in the country. Diseases of the circulatory system (29.6%) and malignant neoplasms (24.7%) were responsible for more than half (54.2%) of deaths in the country in 2016, being the two main underlying causes of death.

There were 32,805 deaths due to diseases of the circulatory system, less 0.2% than in the previous year. Women were the most affected by this group of causes of death, accounting for 55.1% of deaths due to diseases of the circulatory system. The average age at the time of death was 81.1 years, lower for men (78.0 years) than for women (83.7 years). The number of deaths due to diseases of the circulatory system before the age of 70 years increased by 0.5% between 2015 and 2016.

Malignant neoplasms caused 27,357 deaths, 2.7% more than in 2015 (26,647 deaths). This group of diseases hit more men (59.6%) than women (40.4%), and the average age at the time of death was 73.1 years.

Premature mortality (before 70 years of age) stood at 36.7%, higher for men (39.5%) than for women (33.3%) and the number of potential years of life lost in the country in 2016 due to malignant neoplasms was 111,072.

In 2016, there was a decrease of deaths due diseases of the respiratory system (12.1% vis-à-vis 12.4% in 2015) and of those caused by diabetes mellitus (3.9% vis-à-vis 4.0% in 2015).

Statistics Portugal releases the publication [Causes of death 2016](#) (Causas de morte 2016), with the statistical results on mortality by cause of death in Portugal in 2016.

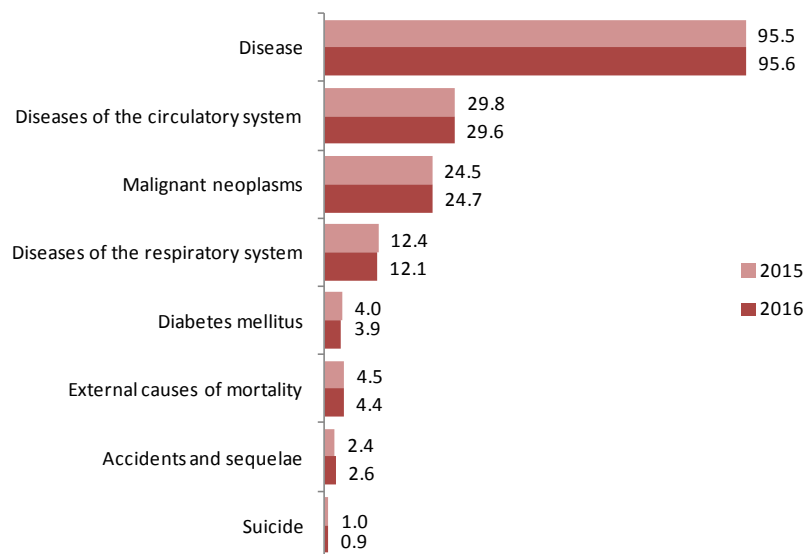
55 groups of causes of death are under review, based on the list used by the 'OECD Health Data' of the Organisation for Economic Co-operation and Development (OECD), which include the main causes of death by disease, especially malignant neoplasms, diseases of the circulatory system, of the respiratory system, and endocrine, nutritional and metabolic diseases, as well as deaths from external causes of injury or poisoning.

Each cause of death is indicated together with the number of deaths by sex, age group, and place of residence of the diseased, and other derivative indicators: sex ratio; average age at the time of death; crude death rate; average number of years of potential life lost, among others.

Deaths due to diseases of the circulatory system affect relatively fewer people in Portugal than in the EU28

In 2016 there were 110,970 deaths in Portugal (397 of residents abroad), i.e. 1.9% more than in 2015 (109,922). Deaths due to disease accounted for 95.6% of total deaths, while external causes of injury or poisoning were at the origin of 4.6% of deaths, in particular resulting from accidental falls (2.6%) and intentional self-harm and sequels (suicide), at 0.9%.

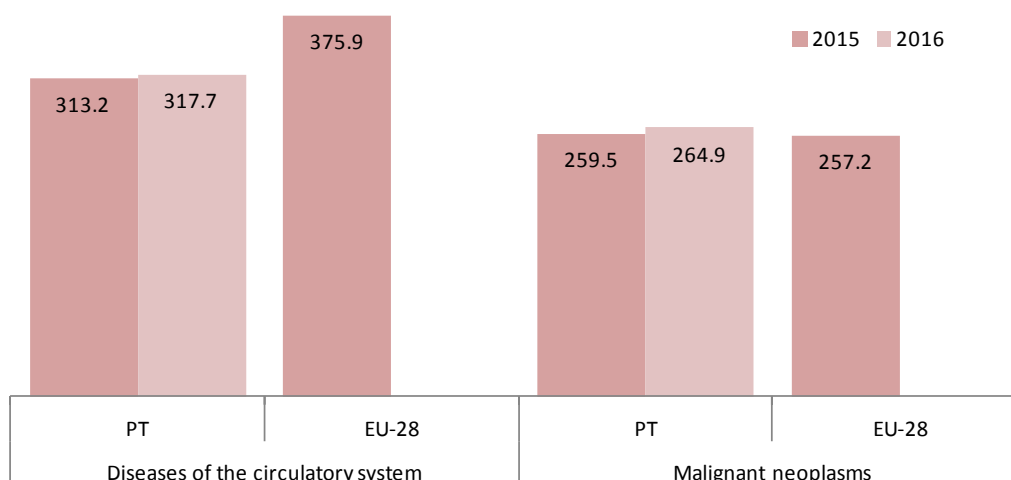
Deaths by some causes of death in the country (%), 2015 and 2016



Fonte: Statistics Portugal, Mortality by causes of death

Together, diseases of the circulatory system (29.6%) and malignant tumors (24.7%) were responsible for more than half (54.2%) of deaths in the country in 2016, being the two main underlying causes of death.

Deaths caused by diseases of the circulatory system and by malignant neoplasms, per 100,000 inhabitants, Portugal 2015-2016 and UE28 2015



Fonte: Statistics Portugal, Mortality by causes of death; Eurostat [hlth_cd_aro]

In the year under review, 32,805 people died due to diseases of the circulatory system, a figure higher than that of the previous year (32,443 deaths). The comparison with data available for the EU28 shows that in 2015 the diseases of the circulatory system caused relatively more deaths in the EU28, with 375.9 deaths per 100,000 inhabitants, than in Portugal, with 313.2 deaths per 100,000 inhabitants (317.7 in 2016).

Malignant neoplasms were the second underlying cause of death in the country in 2016, with 27,357 deaths, 710 more deaths than in the previous year, corresponding to 264.9 deaths per 100,000 inhabitants. In 2015, the mortality rate due to malignant neoplasms in Portugal (259.5 deaths per 100,000 inhabitants) was similar to the one in the EU28 (257.2 deaths per 100,000 inhabitants).

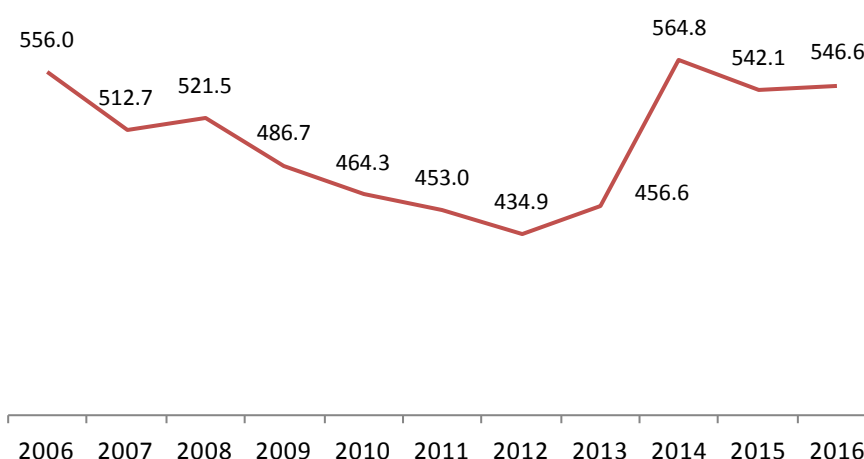
Nearly 48,000 potential years of life lost due to diseases of the circulatory system in 2016

In 2016 diseases of the circulatory system continued to be the main underlying cause of death, leading to 32,805 deaths, i.e. 29.6% of overall mortality in Portugal, 1.1% more than in 2015 (32,443 deaths).

Women were the most affected by this group of causes of death, accounting for 55.1% of deaths due to diseases of the circulatory system, which resulted in a sex ratio of 81.5 male deaths per 100 female deaths. The average age at the time of death was 81.1 years, lower for men (78.0 years) than for women (83.7 years).

On the other hand, the number of deaths before the age of 70 due to this cause increased by 0.5% between 2015 and 2016, and from 47,850 potential years of life lost in 2015 to 47,923 in 2016. In Portugal, 546.6 potential years of life were lost for every 100,000 inhabitants due to diseases of the circulatory system in 2016.

Rate of potential years of life lost due to diseases of the circulatory system per 100,000 inhabitants (No.), in the country, 2006-2016



Fonte: Statistics Portugal, Mortality by causes of death

As regards this group of deaths as a whole, strokes caused 10.6% of total deaths in Portugal (11,738), a value close to that observed in the previous year (10.8% in 2015). Ischaemic heart diseases were the cause of 7,368 deaths in 2016 (6.6%), and acute myocardial infarctions were associated with 4,385 deaths (4.0%).

Deaths due to cerebrovascular diseases hit mainly women, with a ratio of 76.6 male deaths for every 100 female deaths, contrary to deaths caused by ischaemic heart disease and acute myocardial infarction, which recorded a higher ratio for men (131.1 and 136.0 male deaths respectively for every 100 female deaths).

Deaths caused by cerebrovascular diseases generally occurred at an older age (81.8 on average for both men and women) than those caused by acute myocardial infarction (76.7) and ischaemic heart disease (77.6).

More than 111,000 potential years of life were lost in 2016 due to malignant neoplasms

As in previous years, malignant neoplasms were the second underlying cause of death in 2016, with 27,357 deaths, corresponding to 24.7% of mortality in Portugal, i.e. 2.7% more than in 2015 (26,647 deaths). In the EU-28, 25.4% of deaths occurred because of malignant neoplasms in 2015.

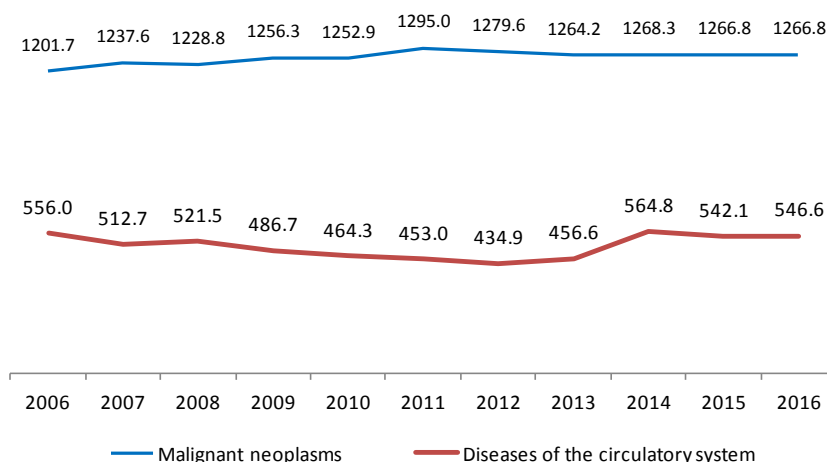
This group of diseases hit more men (59.6% of deaths from malignant neoplasms) than women (40.4%), resulting in a sex ratio of 147.5 male deaths for every 100 female deaths.

The average age of people deceased due to this group of causes at the time of death was 73.1, which was higher for women (74.2) than for men (72.4).

Premature mortality stood at 36.7%, higher for men (39.5%) than for women (32.7%).

The number of potential years of life lost in Portugal in 2016 due to malignant neoplasms was 111,072 (111,820 in 2015), corresponding to a rate of potential years of life lost of 1,266.8 years per 100 thousand inhabitants, equal to the one recorded in 2015. These results show that deaths from malignant neoplasms affect fewer people than diseases of the circulatory system, but have a far greater impact in terms of potential years of life lost.

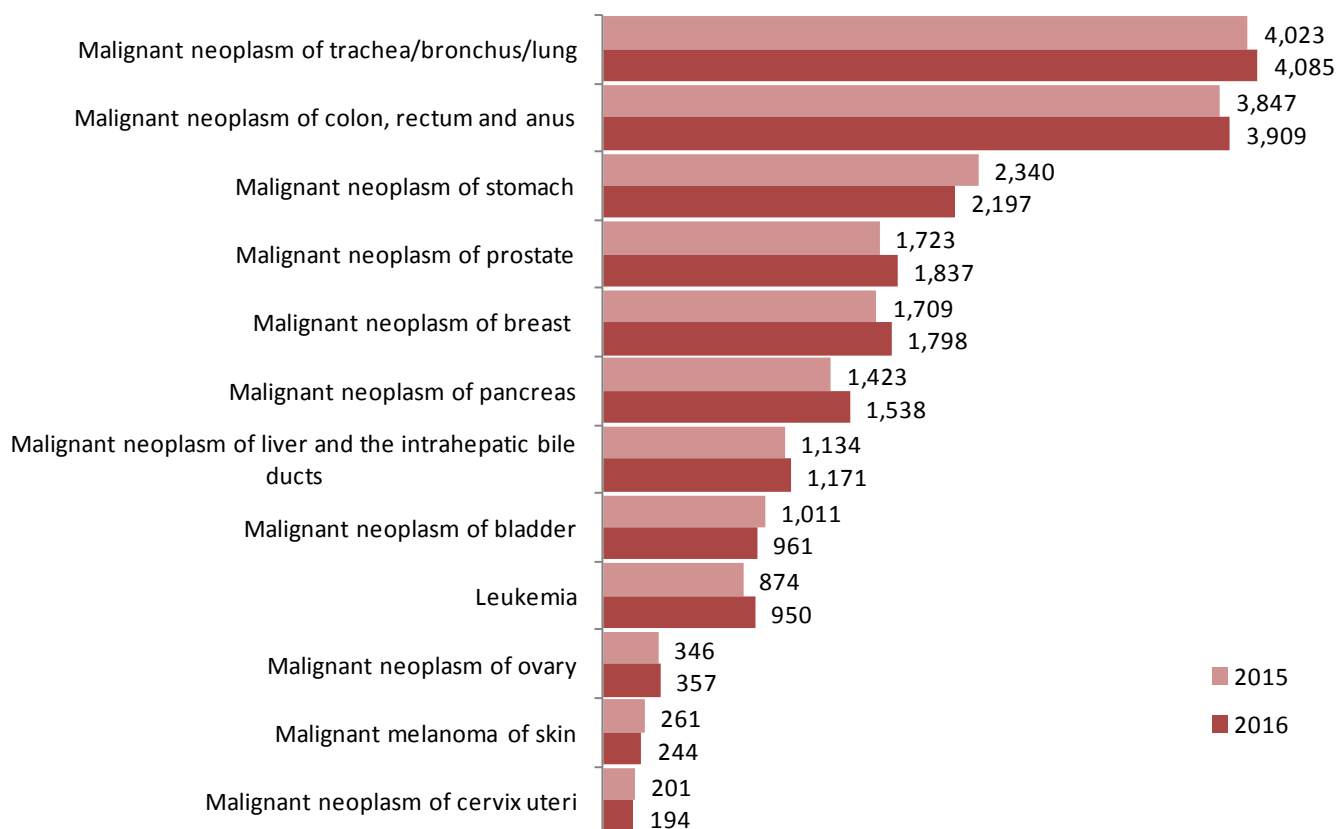
Rate of potencial years of life lost due to diseases of the circulatory system and of malignant neoplasms, per 100,000 inhabitants (No.), in the country, 2006-2016



Fonte: Statistics Portugal, Mortality by causes of death

In 2016, deaths due to Leukemia and to malignant neoplasms of the pancreas were the ones that increased the most, while those due to malignant neoplasms of the skin and of stomach decreased

Deaths caused by some malignant neoplasms (No.), in the country, 2015 and 2016



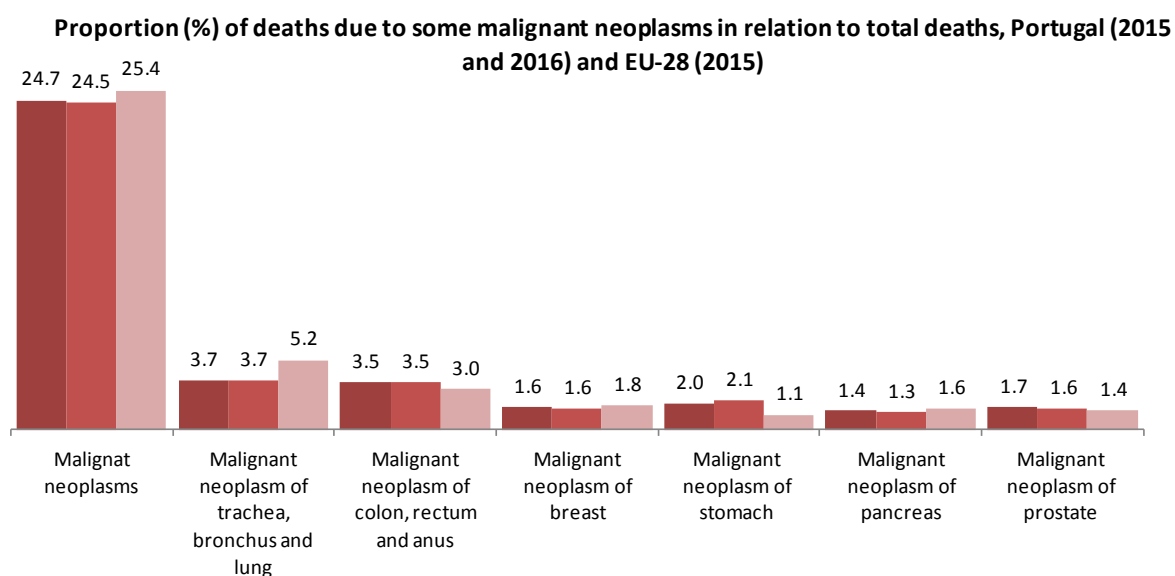
Fonte: Statistics Portugal, Mortality by causes of death

In 2016 malignant neoplasms deaths were mainly caused by malignant neoplasm of trachea, bronchus and lung, representing 3.7% of deaths in Portugal (4,085), i.e. 1.5% more than in 2015 (4,023), and by malignant neoplasm of colon, rectum and anus, with 3.5% of deaths (3,909), 1.6% more than in the previous year (3,847 deaths).

Deaths caused by malignant neoplasm of trachea, bronchus and lung hit mainly men (76.9%), corresponding to a ratio of 332.3 male deaths for every 100 female deaths, the highest value in unspecified neoplasms among men.

Deaths caused by malignant neoplasm of colon, rectum and anus were also more frequent in men (57.2%), although less markedly (the sex ratio in this case was 133.8 male deaths for every 100 female deaths). Deaths caused by malignant neoplasm of colon, rectum and anus occurred on average 5 years later (75.5) than those caused by malignant neoplasm of trachea, bronchus and lung (70.1).

In the previous year, deaths caused by malignant neoplasms of trachea, bronchus and lung were relatively more frequent in the EU-28 (5.2%) than in Portugal (3.7%), while those due to malignant neoplasms of colon, rectum and anus were less frequent (3.0% vis-à-vis 3.5% in Portugal).



Fonte: Statistics Portugal, Mortality by causes of death

■ PT2016 ■ PT2015 ■ EU-28 2015

In 2016 it is also to be noted that deaths due to malignant neoplasm of stomach accounted for 2.0% of total deaths (2.1% in 2015), and those caused by malignant neoplasm of pancreas accounted for 1.4% of total deaths (1.3% in 2015). In 2015, malignant neoplasm of the stomach and malignant neoplasm of the pancreas accounted for 1.1% and 1.6% of total deaths, respectively, in the EU-28. Malignant neoplasms of the pancreas totaled 1,538 deaths in 2016, 8.1% more than in 2015 (1,423), with an average age at the time of death of 73.9 years.

Malignant neoplasm of prostate was responsible for 1,837 deaths in 2016, i.e. 6.6% more than in 2015 (1,723), with an average age at the time of death continuing to be close to 81 years.

1,774 deaths of women were caused by malignant neoplasm of breast in 2016, i.e. 5.0% more than in the previous year (1,690). The average age at the time of death was in this case 71.0, i.e. remaining in the previous year.

In 2016, there was also an increase of 8.7% in Leukemia deaths, with 950 deaths in 2016 and 874 in 2015, and an average age at the time of death of 73.5 years.

In contrast, deaths due to malignant neoplasms of the skin decreased by 6.5% and those due to malignant neoplasms of the stomach by 6.1%.

There are more deaths due to diseases of the respiratory system in Portugal than in the EU-28

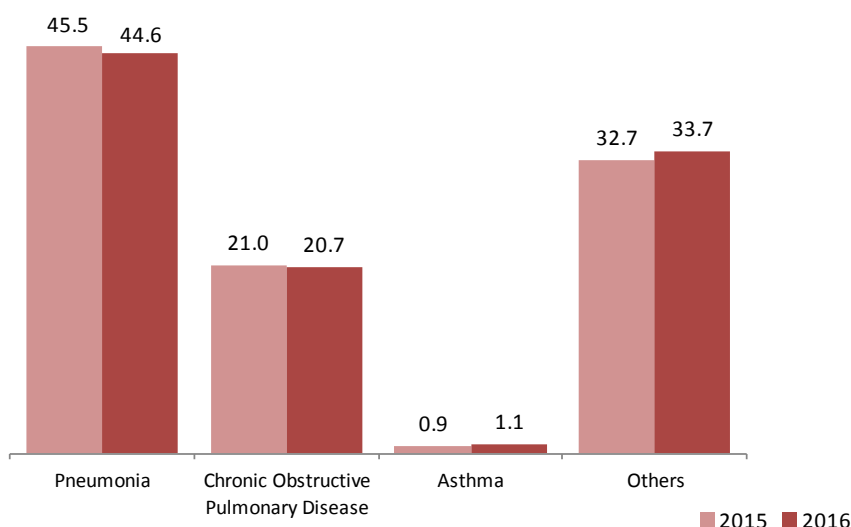
Deaths due to diseases of the respiratory system caused 13,474 deaths in 2016, a figure close to the one recorded in the previous year (13,470 deaths), corresponding to 12.1% of the total deaths in the country. In the EU-28, deaths due to this group of diseases accounted for 8.5% of total deaths in 2015. In Portugal, deaths caused by pneumonia accounted for 44.6% of deaths due to diseases of the respiratory system in 2016, a value which is higher than the one recorded in the EU-28 in the previous year (31.5% of all deaths).

Deaths due to diseases of the respiratory system hit more men (52.2%) more than women, and the average age at the time of death was higher for women (84.4 years) than for men (80.8 years).

The proportion of deaths before the age of 70 was 9.9%, with 14,963 potential years of life lost and 153.7 years lost per 100,000 inhabitants.

As regards diseases of the respiratory system as a whole, pneumonia, with 6,006 deaths, and chronic obstructive pulmonary disease, with 2,791 deaths, caused the highest number of deaths (5.4% and 2.5% respectively of the total in Portugal). The number of deaths due to Influenza increase from 2015 (74 deaths) to 2016 (123 deaths).

Distribution of deaths (%) caused by diseases of the respiratory system, in the country, 2015 and 2016



Source: Statistics Portugal, Mortality by causes of death.

Deaths due to diabetes mellitus decreased by 1.1% in Portugal

Endocrine, nutritional and metabolic diseases caused 5,599 deaths in 2016, 2.9% less than in the previous year (5,766). In 2015, deaths due to this group of causes accounted for 5.3% of all deaths in Portugal, higher than the percentage recorded in the EU-28 (3.0% of all deaths).

These diseases caused more deaths in women (3,276) than in men (2,323), with a sex ratio of 70.9 male deaths for every 100 female deaths. However, the average age at the time of death was higher for women (81.8) than for men (78.1).

The number of potential years of life lost was 8,086 in 2016, a relatively low figure because only 14.2% of deaths due to these diseases occurred before the age of 70. The rate of potential years of life lost was 92.2 per 100,000 inhabitants.

As regards endocrine, nutritional and metabolic diseases as a whole, diabetes mellitus, with 4,359 deaths, caused the highest number of deaths, even decreasing by 1.1% from the previous year. This cause of death hit mainly women, with a sex ratio of 75.8 male deaths for every 100 female deaths.

Deaths caused by mental and behavioural disorders hit more women than men

In 2016 mental and behavioural disorders caused 3,691 deaths, i.e. 13.0% more than in 2015 (3,267). In Portugal, deaths caused by this group of diseases accounted for 3.3% of all deaths in 2015, lower than in the EU-28 (4.1%).

These disorders mainly hit women (61.4% of total deaths due to these causes), with a sex ratio of 63.0 male deaths per 100 female deaths.

The average age at the time of death was 84.4, higher for women (85.6) than for men (82.5). This group of diseases hit especially the eldest: in 2016 only 5.5% of deaths occurred before the age of 70. As a result, the number of potential years of life lost was relatively low (2,300). The rate of potential years of life lost was 26.2 years per 100,000 inhabitants.

94.3% of deaths from mental and behavioural disorders were caused by dementia (3,480 deaths).

Fewer deaths by suicide in 2016

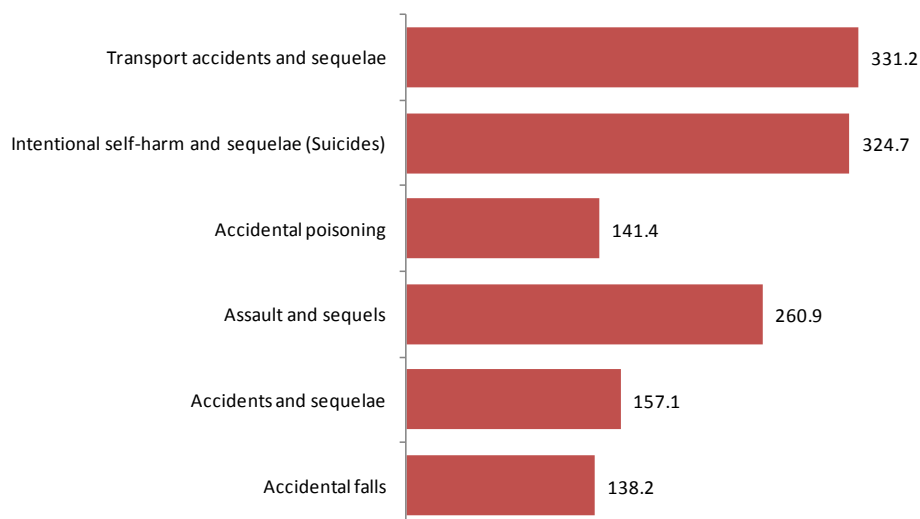
In 2016 there were 4,856 deaths from external causes of injury and poisoning, accounting for 4.4% of all deaths (4.5% in EU-28 in 2015), and 0.3% less than in 2015 (4 870).

Around 65% of these deaths were men's, with a sex ratio of 182.7 male deaths for every 100 female deaths.

The average age at the time of death was 67.6, considerably higher for women (75.1) than for men (63.5). In turn, this group of causes, when compared with the other causes of death, affects younger individuals (39.0% of the deceased were aged less than 65). The number of potential years of life lost was 45,665, and the rate of years of years of life lost was 520.8 years per 100,000 inhabitants.

As regards deaths from external causes of injury and poisoning as a whole, the most frequent were intentional self-harm, or suicides, which caused 981 deaths in 2016, less 13.3% than in 2015 (1,132). Deaths from this cause represented 0.9% of total death in Portugal in 2016 and 1.1% in EU-28 in 2015. Approximately 76% of deaths due to this cause were men's, with a sex ratio of 324.7 male deaths for every 100 female deaths, corresponding to 1.3% of total male deaths in Portugal. The average age at the time of death was 59.9 (59.4 for men and 61.3 for women).

Sex ratio (No.) by some causes of death, in the country, 2016



Source: Statistics Portugal, Mortality by causes of death.

Technical note

Data on deaths by cause of death resulted from the utilisation of administrative data for statistical purposes, from information subject to civil registration and collected from civil registries through the *Sistema Integrado do Registo e Identificação* (integrated civil identification and registration system) and the *Sistema de Informação dos Certificados de Óbito* (death certificate information system). The Portuguese Directorate-General of Health collaborates with Statistics Portugal, coding the causes of death according to the International Classification of Diseases (ICD-10) of the World Health Organisation (WHO).

Years of potential life lost: number of years that theoretically a certain population ceases to live if dying prematurely (under the age of 70). It is calculated by summing the number of deaths in each age group, multiplied by the difference between a selected upper limit and the midpoint of the age group.

Average age at death: the ratio of the sum of each midpoint in the age group, multiplied by the number of observations, in each age group, to the total number of observations.

Sex ratio: the ratio of male deaths to female deaths, for every 100 women.

Rate of potential years of life lost: the number of potential years of life lost for every 100,000 inhabitants. It is obtained from the ratio of potential years of life lost to the average population (under the age of 70), in a given period, usually a calendar year.

In https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes are available the publication Causes of death 2016, associated with this press release.