Causes of death statistics

Statistics Explained

Data extracted in March 2025. Planned article update: March 2026.

Highlights

- "Circulatory diseases accounted for close to one-third (32.7%) of all deaths in the EU in 2022. The second most common cause was cancer (22.3%). "
- " In 2022, ischaemic heart disease was the leading cause of death among men and women aged 65 and over in the EU. "
- "Between 2012 and 2022 deaths from lung cancer decreased by 14.0%."

This article uses the most recent available statistics on causes of death in the European Union (EU) . It is important to identify and record the underlying reasons for deaths and make the information available to policymakers, health services and the public. With these data, it is possible to describe and understand the frequency of deaths from each cause as well as trends in mortality. The data also serve to give information on changing epidemiological circumstances. Most causes of death vary significantly by age and by sex. This article gives an overview of the main causes of death and standardised death rates for the EU as a whole and for EU countries with analyses by age and sex of the deceased. The use of standardised death rates facilitates comparisons both over time and between countries, independent of population age structures. This article is one of a set of statistical articles concerning health status in the EU which forms part of an online publication on health statistics .

Major causes of death in the EU in 2022

In total, 5.16 million deaths of EU residents were reported across the EU in 2022. Around 85% of all deaths in the EU occurred among people aged 65 years and over.

The leading causes of death were diseases of the circulatory system which accounted for 32.7% of the total deaths of EU residents, and cancer (malignant neoplasms) which accounted for 22.3% of all deaths – see Figure 1. The third most frequent cause of death in 2022 was respiratory diseases, followed by COVID-19, which accounted for 7% and 6%, respectively.¹

¹Data on respiratory diseases do not include data for COVID-19

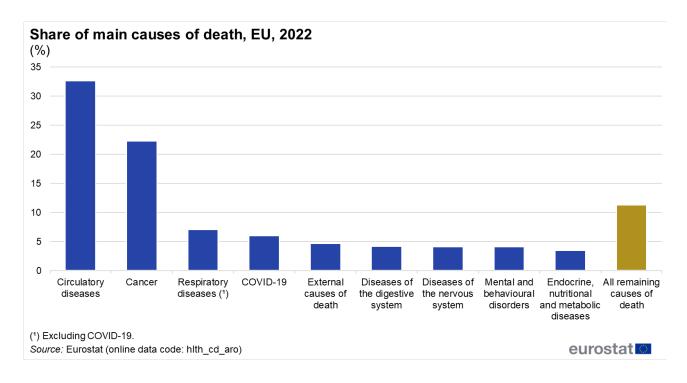
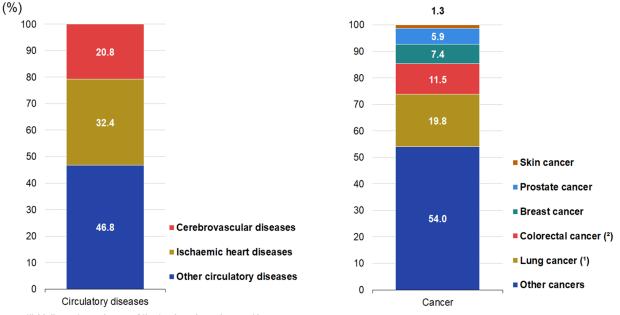


Figure 1: Share of main causes of death, EU, 2022 (%) Source: Eurostat (hlth_cd_aro)

Diseases of the circulatory system include those related to high blood pressure, heart disease and diseases of veins and arteries. The most common causes of death from diseases of the circulatory system are ischaemic heart disease (such as heart attacks) and cerebrovascular diseases (such as strokes) which account for 32.4% and 20.8% of deaths from circulatory diseases, respectively – see Figure 2. The most common causes of death from cancer are malignant neoplasms of the trachea, bronchus and lung (hereafter referred to as lung cancer), which account for 19.8% of cancers, and malignant neoplasm of the colon, rectosigmoid junction, rectum, anus and anal canal (hereafter referred to as colorectal cancer) which account for 11.5% of cancers. This is followed by breast cancer and prostate cancer which account for 7.4% and 5.9% of all cancers. Breast cancer occurs mainly in women and prostate cancer exclusively in men (see Classification of the causes of death for more information). Ischaemic heart disease and lung cancer top the list of avoidable deaths in the EU; see preventable and treatable mortality statistics.

Shares of main types of deaths from circulatory diseases and from cancer, EU, 2022



- (1) Malignant neoplasms of the trachea, bronchus and lung.
- (2) Malignant neoplasms of the colon, rectosigmoid junction, rectum, anus and anal canal.

Source: Eurostat (online data code: hlth_cd_aro)

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Figure 2: Shares of main types of deaths from circulatory diseases and from cancer, EU, 2022 (%) Source: Eurostat (hlth_cd_aro)

Standardised death rate by sex and age

The most common causes of death differ between men and women. With the exception of dementia and breast cancer, the EU standardised death rates were generally higher for men than for women in 2022 for all of the main causes of death. Dementia accounted for 35.6 deaths per 100 000 female residents across the EU in 2022 and breast cancer accounted for 30.4 deaths. Differences between women and men in relation to the leading causes of death are also age related (briefly described below, for more information see causes of death statistics by age group).

Males aged less than 65 years

In 2022, the main cause of death of male residents in the EU aged less than 65 years was ischaemic heart disease, with 27.1 deaths per 100 000 male residents (see Table 1). This was followed by accidents (21.4 deaths per 100 000 male residents aged less than 65 years), lung cancer (18.0) and unknown and unspecified causes (17.0). The other leading causes of death among males in this age group were chronic liver disease (14.5) and Intentional self-harm (13.8).

Females aged less than 65 years

Among female residents of the EU aged less than 65 years, the main cause of death in 2022 was breast cancer with 12.0 deaths per 100 000 female residents (see Table 1). This was followed by lung cancer (9.9 deaths per 100 000 female residents aged less than 65 years), ischaemic heart disease (6.2) and unknown and unspecified causes (5.4). The other leading causes of death among females in this age group were accidents and colorectal cancer (both 5.1).

Men aged 65 years and over

As was the case for younger men, ischaemic heart disease was also the main cause of death in 2022 among male residents of the EU aged 65 years and over, with 654.2 deaths per 100 000 older male residents (see Table 1). This

cause of death was followed by COVID-19 (405.5), cerebrovascular diseases (357.2), lung cancer (278.9) and chronic lower respiratory diseases (such as asthma; 182.6). Prostate cancer was responsible for 171.6 deaths per 100 000 older male residents.

Women aged 65 years and over

Similarly, ischaemic heart disease was the main cause of death in 2022 among female EU residents aged 65 years and over, with 382.0 deaths per 100 000 female residents (see Table 1). Cerebrovascular diseases and COVID-19 were the second and third leading causes of death, with, respectively, 301.6 and 221.9 deaths per 100 000 older female residents. Dementia caused 181.6

deaths per 100 000 female residents within this age group, followed by lung cancer (113.1) and breast cancer (106.4).

Main causes of death by age and sex, EU, 2022

(standardised death rates per 100 000 residents)

	Men		Women	
	Cause of death	Rate	Cause of death	Rate
Aged less than 65 years	Ischaemic heart disease	27.1	Breast cancer	12.0
	Accidents	21.4	Lung cancer (1)	9.9
	Lung cancer (1)	18.0	Ischaemic heart disease	6.2
	Unknown and unspecified causes	17.0	Unknown and unspecified causes	5.4
	Chronic liver disease (2)	14.5	Accidents	5.1
	Intentional self-harm	13.8	Colorectal cancer (4)	5.1
Aged 65 years and over	Ischaemic heart disease	654.2	Ischaemic heart disease	382.0
	COVID-19 (3)	405.5	Cerebrovascular diseases	301.6
	Cerebrovascular diseases	357.2	COVID-19 (3)	221.9
	Lung cancer (1)	278.9	Dementia	181.6
	Chronic lower respiratory diseases	182.6	Lung cancer (1)	113.1
	Prostate cancer	171.6	Breast cancer	106.4

⁽¹⁾ Malignant neoplasms of the trachea, bronchus and lung.

Source: Eurostat (online data code: hlth_cd_asdr2)

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Table 1: Main causes of death by age and sex, EU, 2022 (standardised death rate per 100 000 residents) Source: Eurostat (hlth cd asdr2)

Developments from 2012 to 2022

Between 2012 and 2022, there were declines in the standardised death rates of the leading causes of death in the EU: circulatory diseases decreased by 20.7%, cancer was down 11.9% and respiratory diseases declined by 7.6%.

In terms of circulatory diseases, deaths from ischaemic heart diseases dropped by 12.2%, of which heart attacks in particular declined by 33.3%, and cerebrovascular diseases decreased by 28.8% - see Figure 3.

Among the different types of cancer, the death rate of lung cancer declined by 14.0% in the EU between 2012 and 2022. The rates for breast cancer and for prostate cancer also decreased, down 9.0% and 6.6%, respectively.

For respiratory diseases, there were declines in the standardised death rate for chronic lower respiratory diseases (down 14.4%), and pneumonia (down 4.2%).

The standardised death rate of accidents dropped by 8.3% in the EU between 2012 and 2022; of these transport accidents decreased by 25.5%, while the rate for intentional self-harm fell by 14.5%.

⁽²⁾ Cirrhosis, fibrosis and chronic hepatitis

⁽³⁾ See the section on the classification of the causes of death for details about how statistics on COVID-19 deaths were calculated.

⁽⁴⁾ Malignant neoplasm of colon, rectum and anus

Standardised death rates from selected causes of death, EU, 2012 and 2022

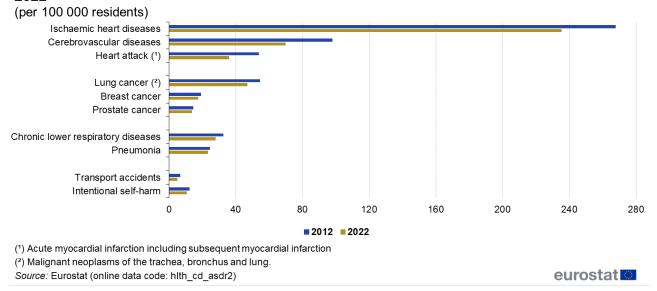


Figure 3: Standardised death rates from selected causes of death, EU, 2011 and 2021 (per 100 000 residents) Source: Eurostat (hlth cd asdr2)

Source data for tables and graphs

· Causes of death: tables and figures

Data sources

Statistics on the underlying causes of death provide information on mortality patterns. This source is documented in more detail in this background article in causes of death statistics - methodology, which provides information on the scope of the data, its legal basis, the methodology employed, as well as related concepts and definitions.

Legal basis for the data collection

Since the 2011 reference year, reporting countries have submitted data to Eurostat based on the requirements of Regulation (EC) No 1338/2008 on Community statistics on public health and health and safety at work, and Regulation (EU) No 328/2011 on Community statistics on public health and health and safety at work, as regards statistics on causes of death . For data before the 2011 reference year, countries submitted data to Eurostat based on a gentleman's agreement established within the context of Eurostat's Working Group on Public Health Statistics.

Classification of the causes of death

Statistics on the causes of death are based on the medical information provided in the death certificate. Causes of death are classified by the 86 causes in the European shortlist which is based on the International Classification of Diseases and Related Health Problems (ICD).

When the outbreak of COVID-19 started, the WHO introduced emergency codes in the ICD version 10 (ICD-10) that countries could use to report deaths from COVID-19. In Eurostat's dissemination database, the codes are available as follows.

- U071 COVID-19, virus identified (deaths where COVID-19 has been confirmed by laboratory testing)
- U072 COVID-19, virus not identified (COVID-19, virus not identified)
- U_COV19_OTH COVID-19 other (COVID-19 death not elsewhere defined)

The data for COVID-19 reported in this article were calculated by adding the data for these 3 codes, however the data disseminated in Eurostat's dissemination database are for each separate code. More information about ICD-10 codes can be found on the ICD website.

Standardised death rate

The number of deaths from a particular cause of death can be expressed relative to the size of the population. A standardised death rate is adjusted to a standard age distribution. This facilitates comparisons of rates over time and between countries. The European standard population used for the standardisation of crude rates is based on the European Standard Population (ESP) in use since summer 2013.

Context

Statistics on causes of death are among the oldest medical statistics available. They provide information on developments over time and differences in causes of death between countries. These statistics play a key role in the general information system relating to the state of health in the EU. They may be used to determine which preventive and medical-curative measures or which investment in research might increase the life expectancy of the population.

There is a general lack of comprehensive European morbidity statistics. Therefore, data on causes of death are often used as a tool for evaluating health systems in the EU and policymakers may use them for evidence-based health policy. The EU promotes a comprehensive approach to tackling major and chronic diseases, through integrated action on risk factors across sectors, combined with efforts to strengthen health systems by improving prevention and control.

Notes

Explore further

Other articles

Online publications

- · Health in the European Union facts and figures
- · Disability statistics

Causes of death

- · Causes of death monthly statistics
- · Causes of death statistics by age group
- · Preventable and treatable mortality statistics

Health status

- · Healthy life years statistics
- · Mortality and life expectancy statistics

Specific health conditions

- · Cardiovascular diseases statistics
- Cancer statistics
- Cancer statistics specific cancers
- Respiratory diseases statistics
- · Mental health and related issues statistics

· Accidents and injuries statistics

Methodology

· Causes of death statistics - methodology

General health statistics articles

- · Health statistics introduced
- · Health statistics at regional level causes of death

Database

• Health (hlth)

Causes of death (hlth_cdeath)

Thematic section

- Health
- · Population and demography overview

Selected datasets

• Health (t_hlth)

Causes of death (t_hlth_cdeath)

Methodology

- Causes of death (ESMS metadata file hlth_cdeath_sims)
- Revision of the European Standard Population Report of Eurostat's task force 2013 edition
- Causes of death statistics manual 2024 edition

External links

- European Commission Directorate-General for Health and Food Safety Non-communicable diseases
- European Commission Directorate-General for Health and Food Safety European Core Health Indicators (ECHI), Health Status indicators Disease-specific mortality
- Joint OECD / European Commission report Health at a Glance: Europe
- WHO Global Health Observatory (GHO) Global Health Estimates: life expectancy and leading causes of death and disability