

Excess mortality statistics

Statistics Explained

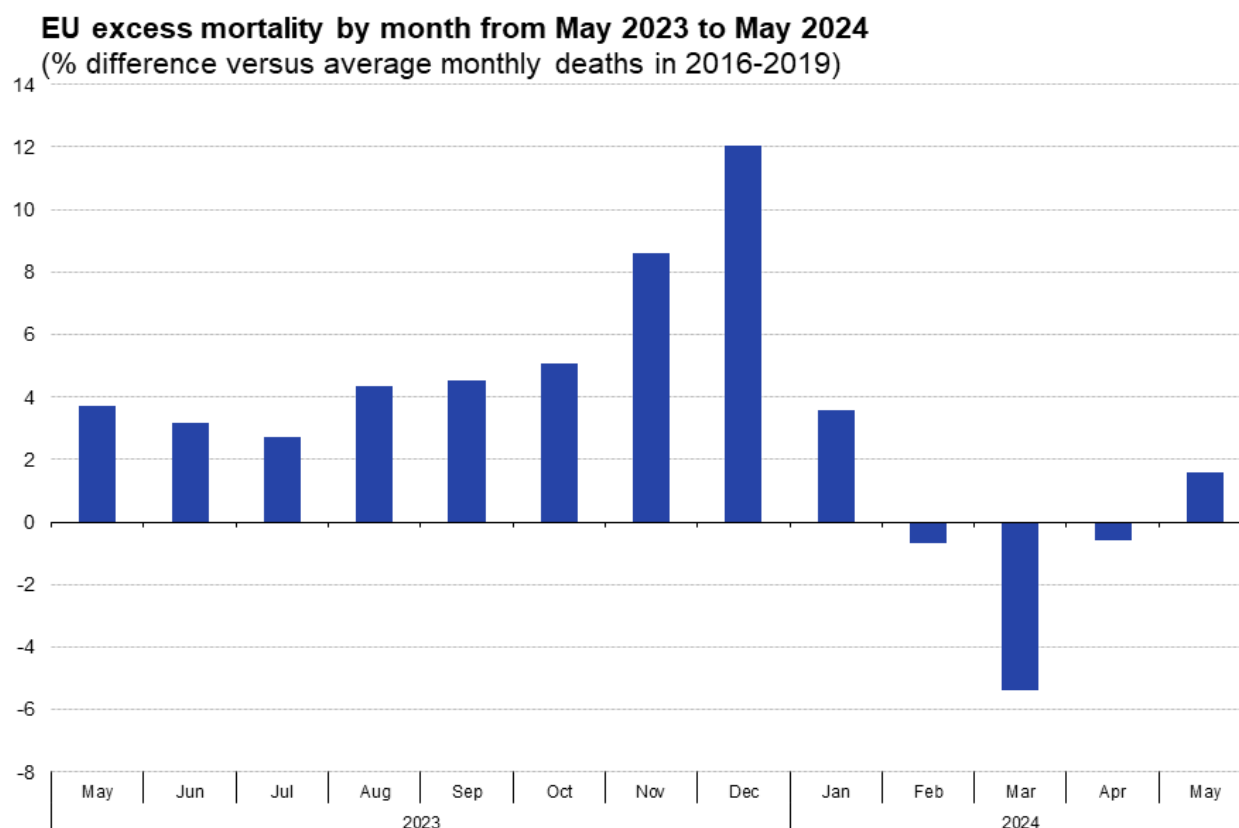
Data extracted on 09 July 2024

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" In May 2024, excess mortality slightly increased in the EU. The indicator reached 1.6 %. "

" In May 2024, excess mortality continued to vary across the EU. The excess mortality rate was positive in 15 EU countries and negative in 11. "

" In May 2024, the highest excess mortality rates were in Malta (14.6 %), the Netherlands (12.6 %) and Ireland (10.7 %). "



Note: Data for 2023 and 2024 are provisional.
Data for Romania for May 2024 are not available. The EU aggregate for May 2024 was estimated using the latest available data for Romania.
Source: Eurostat (online data code: demo_mexrt)

eurostat 

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In this article, [excess mortality](#) refers to the number of deaths from all causes measured during a defined period, above that which was observed in the baseline period. The excess mortality indicator takes the number of deaths

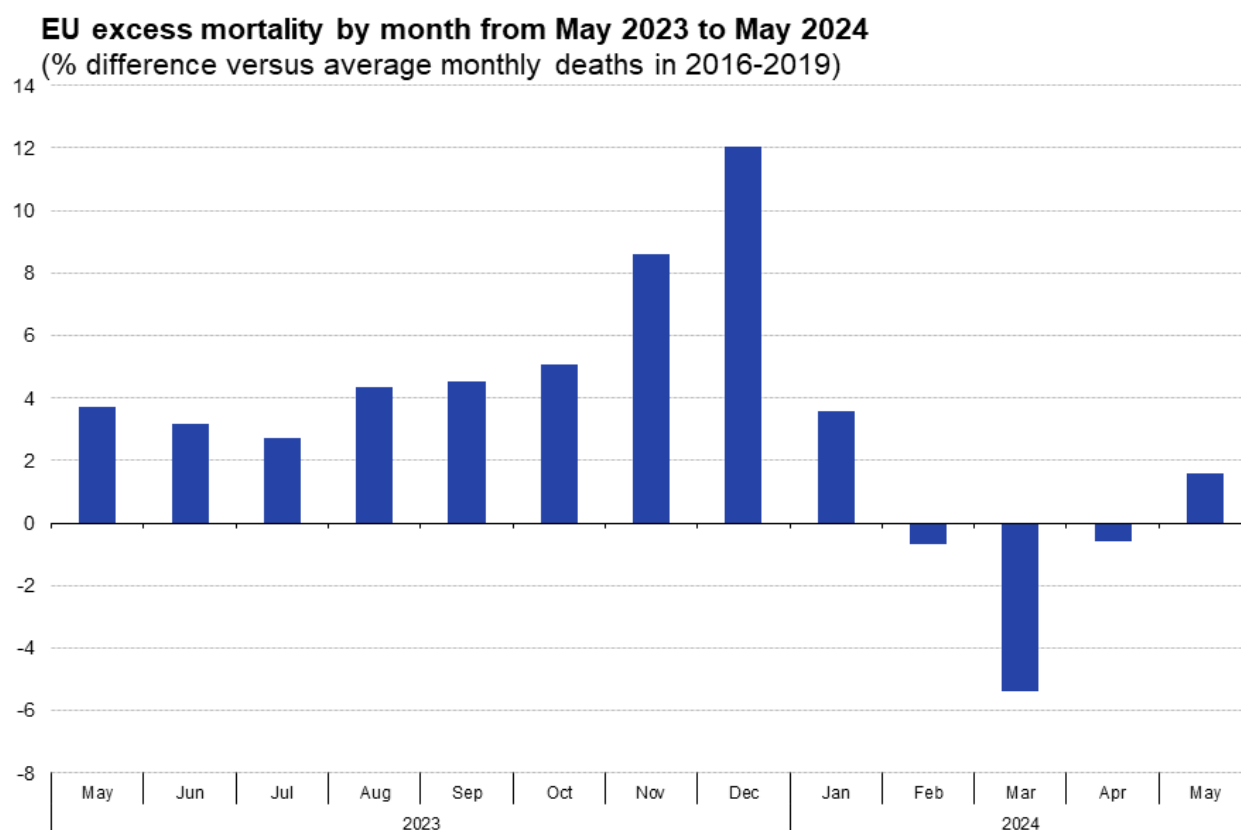
from any cause in a given period and compares it with a historical baseline from previous years in a period that was not affected by the COVID-19 pandemic. In this case, the baseline consists of the average number of deaths that occurred in each month during the period 2016-2019. The higher the value, the higher the number of additional deaths compared with the baseline. A negative indicator shows that fewer deaths occurred in a particular month compared with the baseline period.

This indicator, which is part of the [European Statistical Monitor](#), provides a comprehensive comparison of additional deaths among the European countries. It provides a general measure of mortality because it includes all deaths regardless of their cause.

The excess mortality indicator is based on a data collection for which National Statistical Institutes from the European Union ([EU](#)) and the European Free Trade Association ([EFTA](#)) have transmitted weekly deaths data to Eurostat on a voluntary basis since April 2020. The weekly deaths dataset that Eurostat publishes regularly is used to compute the monthly excess mortality indicator by mapping the deaths of each week to a full month. The data covered in this analysis include all deaths that have occurred since May 2023.

Recent data on excess mortality in the EU

In May 2024, excess mortality in the EU slightly increased to 1.6% % above the baseline. In comparison, the indicator was -0.6 % in April 2024 (Figure 1). According to the weekly death statistics, during May 2024, approximately 5 847 additional deaths were recorded compared with the average number of deaths for the same period in 2016-2019 (baseline). For comparison, in May 2023, when the [World Health Organization \(WHO\)](#) declared the end of the COVID-19 pandemic, excess mortality stood at 3.6 % (11 831 additional deaths).

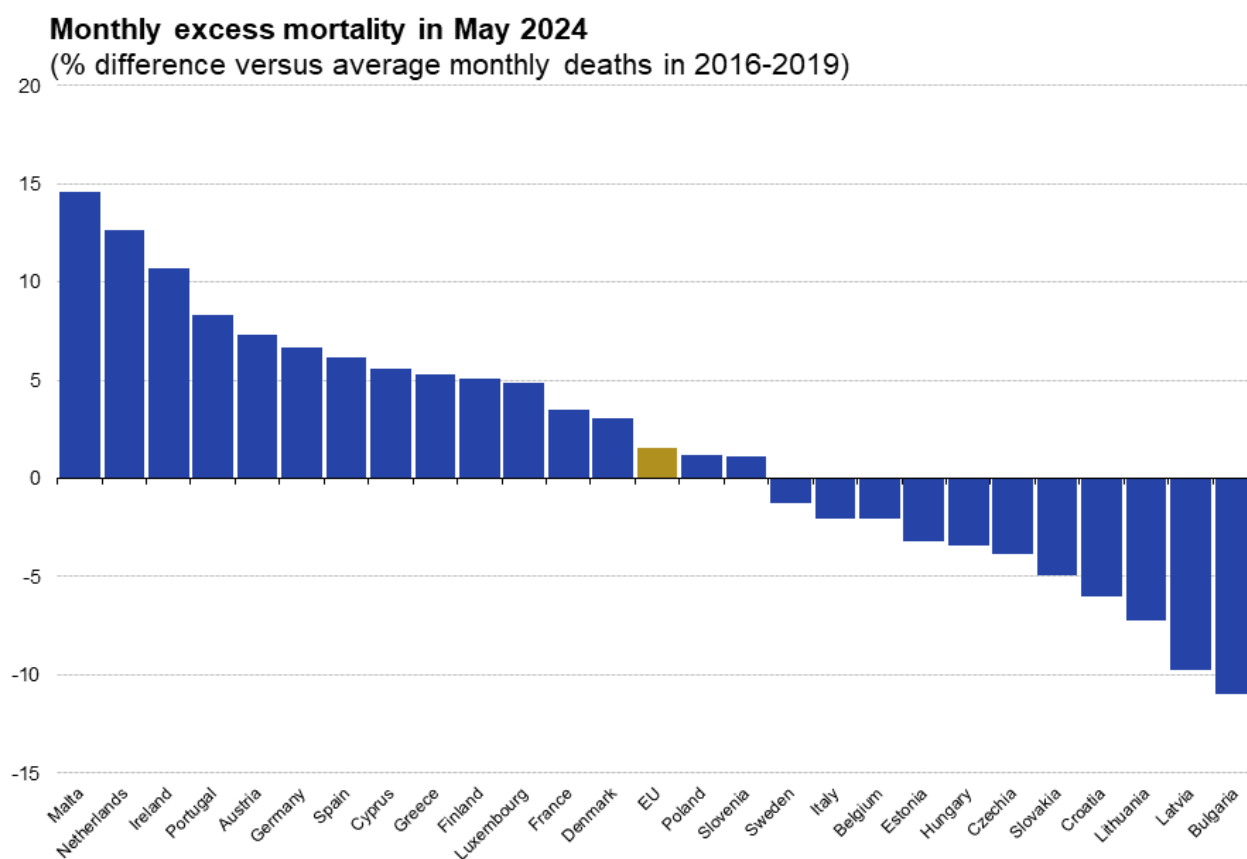


Note: Data for 2023 and 2024 are provisional.
Data for Romania for May 2024 are not available. The EU aggregate for May 2024 was estimated using the latest available data for Romania.
Source: Eurostat (online data code: demo_mexrt)

eurostat 

Figure 1: EU excess mortality by month from May 2023 to May 2024 (% difference versus average monthly deaths in 2016-2019) Source: Eurostat (demo_mexrt)

In May 2024, excess mortality continued to vary across the EU (Figure 2). The excess mortality rate was negative in 11 EU countries: the lowest rates were recorded in Bulgaria (-10.9 %), Latvia (-9.8 %), Lithuania (-7.2 %), Croatia (-6.0 %) and Slovakia (-4.9 %). On the other hand, 15 EU countries registered excess deaths: the highest rates were observed in Malta (14.6 %), the Netherlands (12.6 %), Ireland (10.7 %), Portugal (8.4 %) and Austria (7.3 %). For comparison, as presented in Table 1, 13 EU countries recorded excess deaths in April 2024, with the highest rates observed in Malta (17.9 %), the Netherlands (16.9 %), Ireland (12.0 %), Luxembourg (9.7 %) and Portugal (5.1 %).



Note: Data for May 2024 are provisional.
 Data for Romania for May 2024 are not available. The EU aggregate for May 2024 was estimated using the latest available data for Romania.
 Source: Eurostat (online data code: demo_mexrt)



Figure 2: Monthly excess mortality in May 2024 (% difference versus average monthly deaths in 2016-2019)
 Source: Eurostat (demo_mexrt)

Excess mortality indicator

Percentage of monthly additional deaths in 2023-2024 compared to average monthly deaths in 2016-2019

	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023	Jan-2024	Feb-2024	Mar-2024	Apr-2024	May-2024
EU	4.3	-1.0	1.4	4.4	3.7	3.2	2.7	4.4	4.5	5.1	8.6	12.1	3.6	-0.7	-5.4	-0.6	1.6
Belgium	5.7	-4.6	-2.0	0.0	0.2	7.0	-3.4	0.3	5.0	4.2	5.0	7.9	5.6	-1.0	-8.1	2.2	-2.0
Bulgaria	-11.5	-7.4	-8.4	-6.4	-5.2	-7.1	-1.6	-3.9	-4.6	-5.4	-1.7	-6.2	-12.0	-7.2	-14.6	-13.2	-10.9
Czechia	9.2	-6.1	-3.5	1.2	-0.6	-0.3	-2.3	1.5	-1.9	2.2	7.6	10.0	0.6	0.3	-10.8	-4.4	-3.8
Denmark	11.9	-1.8	0.9	9.4	6.7	5.2	7.9	4.4	7.6	9.9	13.3	19.0	11.0	1.9	-5.6	4.2	3.0
Germany	15.1	-0.1	5.6	11.5	10.0	9.0	2.5	6.4	8.5	12.5	17.7	21.6	10.6	4.2	-6.3	3.3	6.6
Estonia	9.2	-7.8	-7.3	3.2	0.4	10.0	-1.4	-1.8	-1.7	6.8	9.7	19.3	11.3	0.0	-4.0	0.7	-3.2
Ireland	15.4	0.8	9.2	12.2	13.3	14.0	13.7	21.3	12.7	17.9	10.6	8.6	5.8	9.4	11.1	12.0	10.7
Greece	4.8	7.7	4.7	2.9	5.3	-2.9	17.4	4.8	9.4	1.5	-0.5	8.3	0.1	-1.9	-4.4	-4.8	5.3
Spain	-2.0	5.9	6.2	2.8	1.2	2.6	3.5	9.9	7.3	4.8	2.7	8.8	8.7	-4.2	1.4	3.9	6.2
France	5.5	-0.8	1.1	5.5	5.5	6.2	1.1	7.7	6.7	7.6	8.3	11.8	6.4	4.2	-0.5	2.9	3.5
Croatia	-5.4	-2.2	-9.4	-1.9	-2.4	-3.5	-0.6	0.3	0.0	-1.9	-1.8	8.2	-6.5	1.2	-11.4	-8.8	-6.0
Italy	-1.5	4.1	-1.5	3.2	0.0	-2.0	9.2	1.8	3.6	-1.0	5.6	11.7	-4.0	-6.2	-8.5	-4.7	-2.0
Cyprus	15.0	19.1	19.3	7.3	9.9	20.6	25.6	13.1	16.8	19.1	12.0	14.7	11.0	-2.8	-4.1	-6.4	5.6
Latvia	7.8	-3.6	-13.7	-3.5	-5.8	-1.6	-12.6	-3.5	-7.5	-0.7	5.1	7.0	-2.0	-3.6	-14.3	-15.1	-9.8
Lithuania	-1.5	-22.8	-6.7	-7.7	-3.7	-5.0	-6.6	-4.9	-1.9	-3.8	4.4	7.5	-6.8	-9.7	-10.1	-7.1	-7.2
Luxembourg	14.5	-11.1	-3.5	12.1	18.1	2.2	-2.9	8.0	7.1	11.8	10.1	10.5	-1.7	4.7	2.9	9.7	4.9
Hungary	-9.7	-6.4	1.3	0.5	-0.3	-2.8	-2.0	-2.6	-5.7	1.8	3.5	8.0	-7.3	-7.5	-10.0	-6.5	-3.4
Malta	5.1	2.2	13.2	10.4	9.6	13.2	55.6	18.3	12.0	14.2	-0.8	8.8	8.4	3.1	7.9	17.9	14.6
Netherlands	13.5	4.3	12.6	10.1	7.8	14.6	6.5	9.9	13.0	15.3	18.8	17.8	15.0	12.6	7.9	16.9	12.6
Austria	14.0	0.6	9.1	13.2	10.1	8.2	7.5	8.0	8.9	10.8	19.5	20.6	8.5	9.1	-0.9	3.8	7.3
Poland	5.1	-8.4	-1.1	0.7	1.9	1.4	-1.5	1.3	-1.5	1.1	7.6	10.5	0.2	-3.1	-7.7	-2.1	1.2
Portugal	-3.1	5.9	4.8	2.2	5.8	6.9	5.5	13.0	12.4	6.6	5.1	13.4	9.6	-10.1	4.6	5.1	8.4
Romania	-7.4	-10.1	-9.0	-6.0	-3.6	-9.9	-5.2	-4.7	-5.6	-7.7	-7.9	-14.6	-6.0	-7.9	-15.8	-17.2	;
Slovenia	7.1	-3.8	-1.3	2.8	8.8	11.7	10.9	5.3	2.4	9.7	13.7	20.2	2.4	7.1	-3.8	1.6	1.1
Slovakia	1.9	-8.4	3.5	2.6	-0.2	4.1	2.5	2.9	1.3	4.6	8.5	17.3	3.6	-2.1	-9.2	-7.6	-4.9
Finland	6.1	2.1	-0.2	12.3	13.9	14.4	5.2	8.7	12.4	18.9	39.5	48.3	8.5	5.1	-0.9	2.9	5.1
Sweden	11.3	-8.2	-3.3	0.7	1.4	3.3	-3.0	-0.9	2.0	6.5	16.8	16.8	3.0	-4.2	-9.4	-5.5	-1.2
Iceland	33.0	10.6	5.9	-3.7	6.9	6.8	17.1	15.1	17.1	20.1	14.7	24.7	30.7	5.9	23.7	2.5	18.0
Liechtenstein	20.7	9.5	1.2	-0.2	10.0	1.8	-45.3	-2.4	-12.4	-12.2	39.7	-6.7	-16.5	59.1	-9.1	37.9	21.2
Norway	10.2	-3.1	0.7	4.3	5.4	10.0	3.0	5.5	13.1	9.8	18.1	11.0	6.5	3.3	0.7	2.3	7.4
Switzerland	6.8	-2.8	6.6	10.1	6.3	5.7	6.4	14.4	7.9	11.8	20.4	16.9	4.1	4.7	0.3	7.0	7.2

Note: Data for 2023 and 2024 are provisional.

; Data for Romania for May 2024 are not available. The EU aggregate for May 2024 was estimated using the latest available data for Romania.

Source: Eurostat (online data code: demo_mexrt)

eurostat

Table 1: Excess mortality indicator (Percentage of monthly additional deaths in 2023-2024 compared to average monthly deaths in 2016-2019) Source: Eurostat (demo_mexrt)

Recent data on weekly deaths in the EU

During the weeks of May 2024, there were approximately 5 847 additional deaths in the EU compared with the 2016-2019 baseline, with the highest number of additional deaths recorded in the third week of May 2024 (2 089). By contrast, during the weeks of January 2024, EU countries recorded around 15 000 additional deaths. This represents a significant decrease in weekly deaths between January 2024 and May 2024. Compared with the previous year, in May 2023, there were 11 831 additional deaths in the EU compared with the 2016-2019 baseline.

Deaths in the EU by week
(thousands, 2023-2024 compared to baseline 2016-2019)

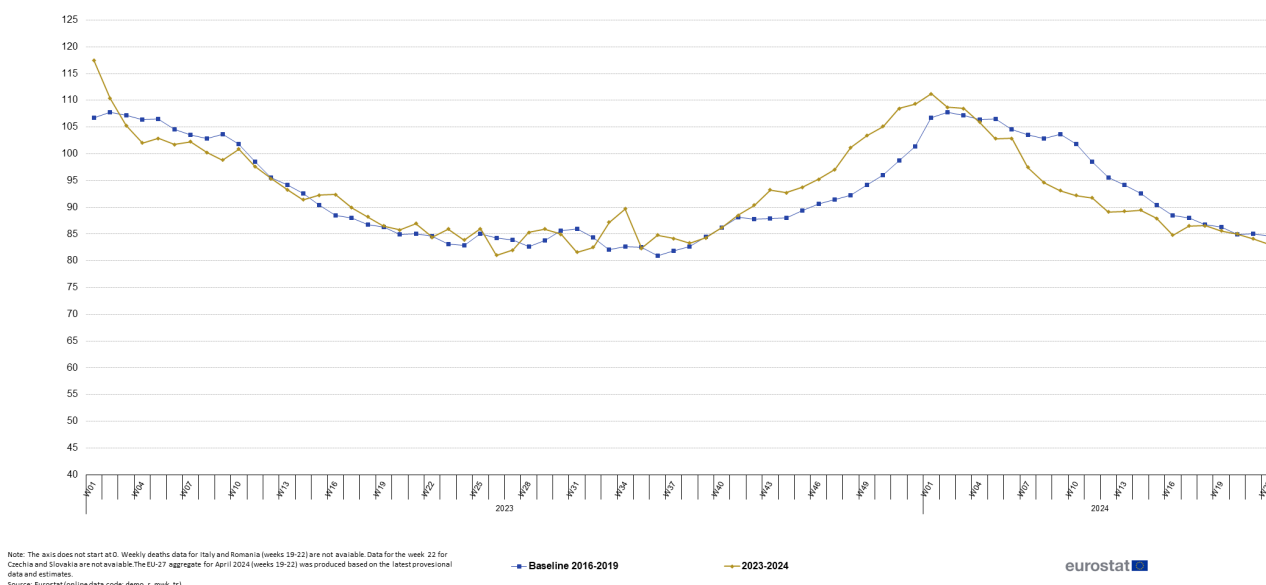


Figure 3: Deaths in the EU by week (thousands, 2023-2024 compared with baseline 2016-2019) Source: Eurostat (demo_r_mwk_ts)

Table 2 below shows the number of deaths in EU countries and the respective excess mortality indicator for the month of May 2024, as well as, where data are available, the most affected regions of the countries.

- During the first week of May 2024 (week 18), Ireland recorded the highest excess mortality rate (18.6 %). The Netherlands and Luxembourg followed with rates of 17.6 % and 15.4 %, respectively.
- In the second week of May 2024 (week 19), Cyprus had the highest excess mortality rates among the EU countries with 18.3 %, followed by Portugal with 13.6 % and Malta with 11.8 %.
- During the third week of May 2024 (week 20), Luxembourg (19.2 %), Ireland (17.7 %) and Malta (17.0 %) recorded the highest excess mortality rates.
- In the fourth week of May 2024 (week 21), Malta registered the highest excess mortality rate (31.6 %), followed by Greece with 13.0 % and the Netherlands with 12.7 % additional deaths.
- During the last week of May 2024 (week 22), Malta continued to register the highest excess mortality rate (10.9 %), followed by Denmark (9.1 %) and Spain (8.7 %).

Deaths by country and the most affected region in May 2024

(Number of deaths)

Country	Total deaths	Excess mortality indicator (%)	Most affected NUTS-3 region	Deaths in the most affected region
Belgium	8,648	-2.0	Arr. Antwerpen	742
Bulgaria	7,814	-10.9	Sofia	1,142
Czechia	8,559	-3.8	:	:
Denmark	4,563	3.0	Østjylland	647
Germany*	79,952	6.6	:	:
Estonia**	1,246	-3.2	:	:
Ireland**	2,770	10.7	:	:
Greece	10,092	5.3	Kentrikos Tomeas Athinon	966
Spain	35,329	6.2	Barcelona	4,100
France	49,968	3.5	Nord	1,859
Croatia**	3,932	-6.0	:	:
Italy	49,630	-2.0	:	:
Cyprus**	497	5.6	:	:
Latvia	2,103	-9.8	Rīga	663
Lithuania	3,070	-7.2	Vilniaus apskritis	762
Luxembourg**	342	4.9	:	:
Hungary	9,812	-3.4	Budapest	1,452
Malta	328	14.6	:	:
Netherlands**	13,726	12.6	Groot-Rijnmond	1,067
Austria	6,890	7.3	Wien	1,275
Poland	32,659	1.2	Miasto Warszawa	1,492
Portugal	9,372	8.4	Grande Lisboa	1,575
Romania	17,612	;	:	:
Slovenia*	1,612	1.1	:	:
Slovakia	4,040	-4.9	:	:
Finland	4,588	5.1	Helsinki-Uusimaa	1,067
Sweden	7,109	-1.2	Stockholms län	1,216
Iceland*	217	18.0	:	130
Liechtenstein**	24	21.2	:	:
Norway	3,491	7.4	Viken	813
Switzerland	5,711	7.2	Zürich	885

Notes: Data for 2024 are provisional.

* Only data for NUTS-1 region available

** Only national data available

: Missing data or not applicable

Source: Eurostat (online data code: demo_r_mwk_ts)



Table 2: Deaths by country and the most affected region in May 2024 (Number of deaths) Source: Eurostat (demo_r_mwk_ts)

In the tool below, you may select the country you would like to analyse.

Further releases

Data for the most recent months are provisional and subject to revision. This article and the related datasets are updated monthly.

Source data for tables and figures

Excess mortality data

Data sources

The excess mortality indicator is expressed as the percentage of additional deaths compared with the baseline period (2016-2019). A negative percentage indicates that no additional deaths occurred in a particular month compared with the baseline period. The excess mortality indicator, covering EU and EFTA countries, is based on weekly death data transmitted to Eurostat by EU Member States on a voluntary basis. Data are classified by sex, 5-year age groups and NUTS regions, and are continuously updated with more recent weeks of mortality statistics. These weekly data are then attributed pro-rata to months to compute the excess mortality indicator. For the purpose of the excess mortality indicator, the death figures for the latest weeks available in a Member State are corrected for incompleteness. Data remain provisional and subject to revision with the next releases.

Thirty-one countries provide weekly mortality data: Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Iceland, Liechtenstein, Norway and Switzerland. Data received from candidate and neighbouring countries are not present in this article.

Data from Ireland were not included in the first phase of the excess mortality release: official timely data were not available because deaths in Ireland can be registered up to three months after the date of death. Because of the COVID-19 pandemic, the Central Statistics Office (CSO) of Ireland began to explore experimental ways of obtaining up-to-date mortality data.

Weekly deaths data for Romania for weeks 19-22 (May 2024) are not available. The EU excess mortality indicator and weekly deaths indicator for May 2024 were produced based on provisional data and the latest available weeks for Romania. For Czechia and Slovakia, the average of weeks 20 and 21 was used to calculate the EU aggregate for week 22 of 2024

Data for several countries were recalculated from 2021 onwards by applying the new coefficients of data completeness transmitted by the National Statistical Institutes in May 2023. For more information about Methodology, please consult Excess Mortality Metadata [\[1\]](#).

The excess mortality indicator does not distinguish between the causes of death and did not differentiate between sex and age class. For more information on causes of death, please see [Causes of death - monthly statistics](#) and [Causes of death statistics](#). During the COVID-19 pandemic, excess death statistics revealed the mortality burden potentially linked to the pandemic, encompassing not only direct virus-related deaths, but also indirect deaths. This measure included undiagnosed and unreported COVID-19 deaths as well as deaths from other causes influenced by the overall crisis. It also accounted for the reduction in deaths from other causes, such as accidents that did not occur due to restrictions on commuting or travel during lockdown periods. In the post-pandemic period, the indicator captures the effects of heat waves during summer and influenza during winter.

Context

The COVID-19 pandemic has triggered tremendous interest in statistics. Hence, in April 2020, in cooperation with the National Statistical Institutes of the European Statistical System, Eurostat set up a special data collection on weekly deaths, to support the policy and research efforts related to the pandemic. The National Statistical Institutes regularly and voluntarily transmit data to Eurostat on weekly deaths up to the latest available week. 'Excess mortality' has been identified as the most useful indicator for assessing additional deaths, complementing the other

indicators contained in the European Statistical Monitor. To capture the dynamics of mortality changes in a stable way, the excess mortality indicator is calculated for each month, no later than 45 days after the end of the reference period (depending on data available to Eurostat from the National Statistical Institutes). Eurostat started to publish the excess mortality indicator in relation to the COVID-19 public health emergency announced by the WHO. While the global COVID-19 crisis is over, the indicator remains relevant and is available to capture possible future factors affecting mortality in the EU.

See also

- [Weekly death statistics](#)
- [Causes of death statistics](#)
- [Causes of death statistics by age group](#)
- [Mortality and life expectancy statistics](#)

Database

- [Mortality \(DEMO_MEXRT\)](#) , see:

Excess mortality - monthly data (demo_mexrt)

- [Mortality \(demomwk\)](#) , see:

Weekly deaths - special data collection (demomwk)

Dedicated section

- [Population and health](#)
- [Population and Demography overview](#)

Methodology

- [Excess mortality](#) (ESMS metadata file — demo_mexrt)

Visualisations

- [Data Browser \(Excess mortality line chart\)](#) - select geopolitical entity and time
- [Data Browser \(Excess mortality bar chart\)](#) - select time