

Excess mortality statistics

Statistics Explained

Data extracted on 10 June 2024

Planned article update: 16 July 2024

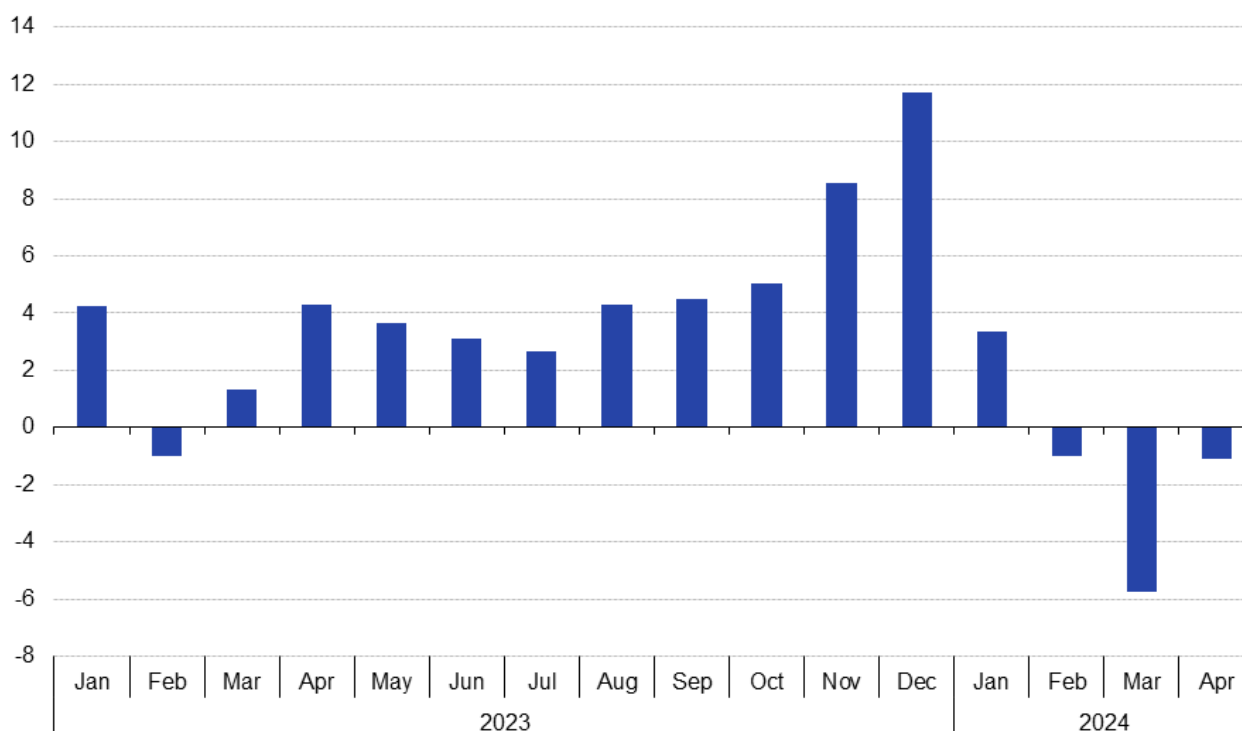
" In April 2024, no excess mortality was observed in the EU. The indicator fell to -1.1 %. "

" In April 2024, excess mortality continued to vary across the EU. The excess mortality rate was negative in 13 Member States. "

" In April 2024, the highest excess mortality rates were in the Netherlands (16.7 %), Malta (14.2 %) and Ireland (11.8 %). "

EU excess mortality by month from January 2023 to April 2024

(% difference versus average monthly deaths in 2016-2019)



Note: Data for 2023 and 2024 are provisional.

Source: Eurostat (online data code: demo_mexrt)

eurostat 

Source: Eurostat (demo_mexrt)

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.

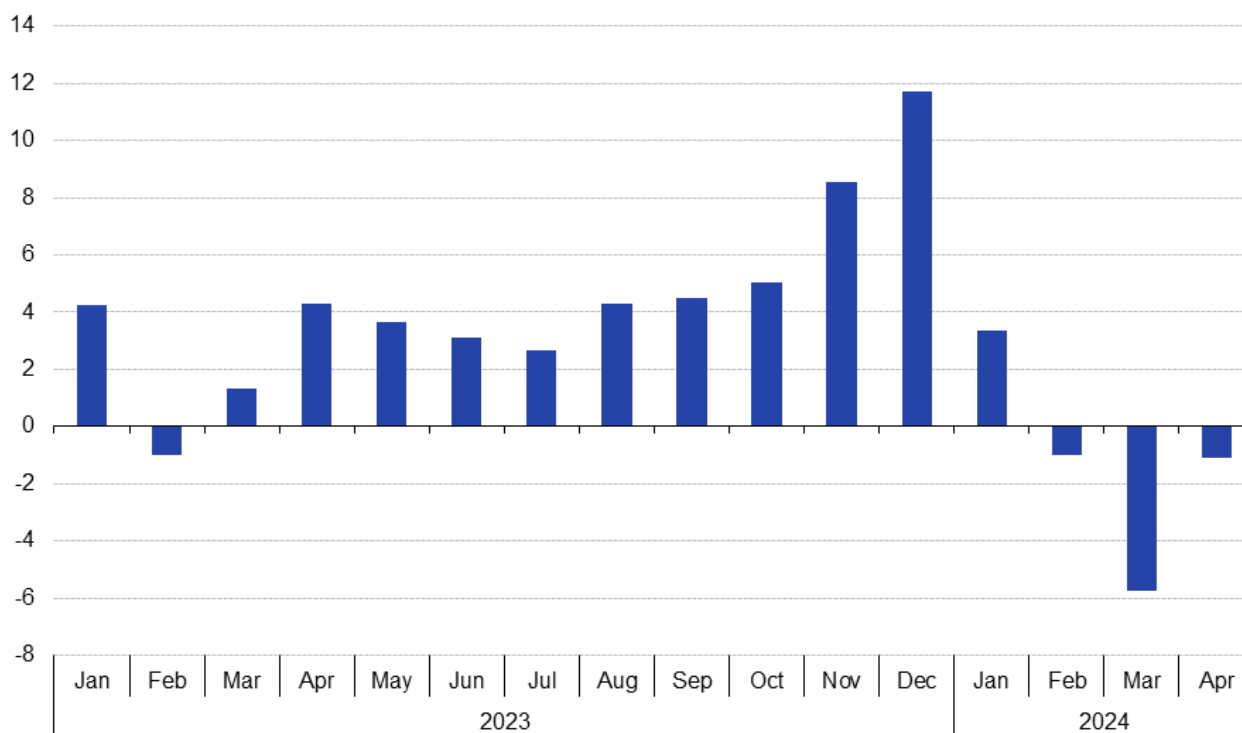
This indicator, which is part of the [European Statistical Monitor](#) , provides a comprehensive comparison of additional deaths among the European countries. It provides a general measure of mortality because it includes all deaths regardless of their cause.

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 April 2023.

Recent data on excess mortality in the EU

In April 2024, there were no excess deaths in the EU as a whole and the indicator stood below the baseline to -1.1 %. In comparison, the indicator was -5.7 % in March 2024 and -1.0 % in February 2024 (Figure 1). According to the weekly death statistics, during April 2024, approximately 4 229 fewer 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). In April 2023, the excess mortality rate in the EU was 4.3 % and in April 2022 the excess mortality rate was 11.9 %.

EU excess mortality by month from January 2023 to April 2024 (% difference versus average monthly deaths in 2016-2019)



Note: Data for 2023 and 2024 are provisional.
Source: Eurostat (online data code: demo_mexrt)

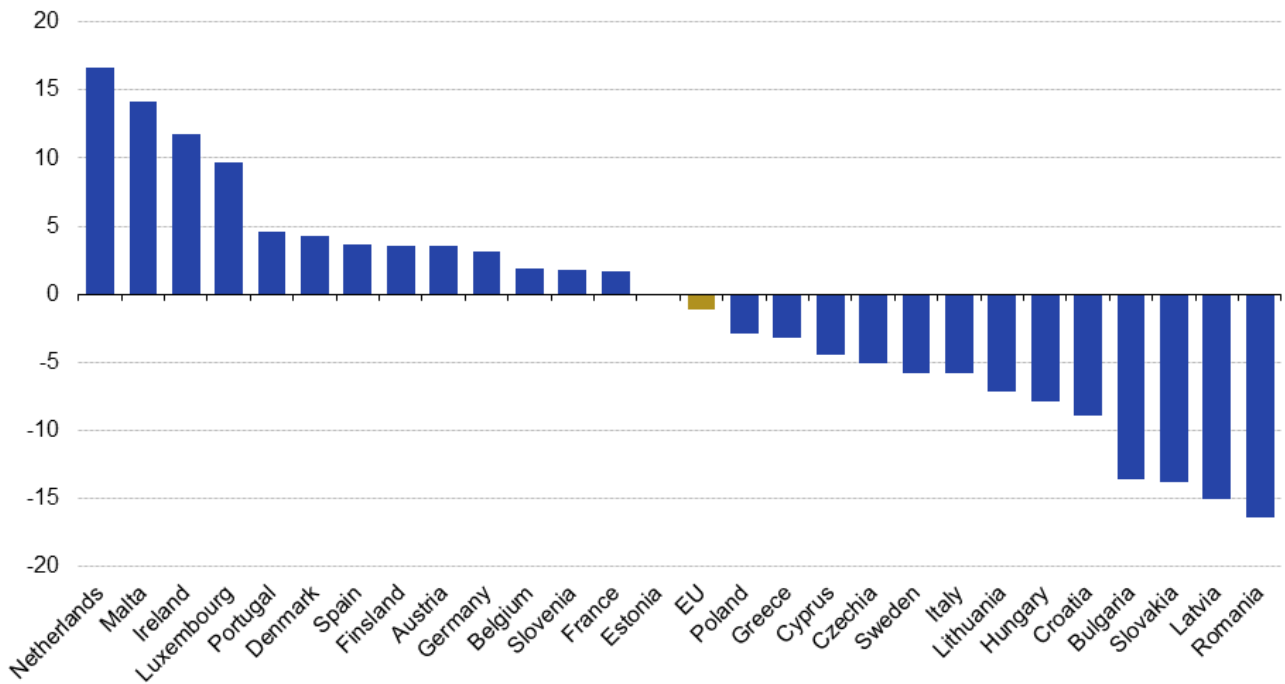


Figure 1: EU excess mortality by month from April 2023 to April 2024 (% difference versus average monthly deaths in 2016-2019) Source: Eurostat (demo_mexrt)

In April 2024, excess mortality continued to vary across the EU (Figure 2). The excess mortality rate was negative in 13 Member States: the lowest rates were recorded in Romania (-16.4 %), Latvia (-15.0 %), Slovakia (-13.8 %), Bulgaria (-13.6 %) and Croatia (-9.0 %). On the other hand, 13 Member States registered excess deaths: the highest rates were observed in the Netherlands (16.7 %), Malta (14.2 %) and Ireland (11.8 %), Luxembourg (9.7 %) and Portugal (4.6 %). In Estonia, the indicator was zero. For comparison, as presented in the Table 1, five Member States recorded excess deaths in March 2024, with the highest rates observed in Ireland (11.1 %), the Netherlands (7.8 %), Portugal (4.5 %), Luxembourg (2.9 %) and Spain (0.8 %). Since the onset of the COVID-19 pandemic, this is the fourth time the excess mortality indicator in the EU has fallen below zero and the third month in a row.

Monthly excess mortality in April 2024

(% difference versus average monthly deaths in 2016-2019)



Note: Data for April 2024 are provisional.

Source: Eurostat (online data code: demo_mexrt)



Figure 2: Monthly excess mortality in April 2024 Source: Eurostat (demo_mexrt)

Excess mortality indicator

(% monthly additional deaths in 2023-2024 compared with 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
EU	4.2	-1.0	1.3	4.3	3.7	3.1	2.7	4.3	4.5	5.0	8.5	11.7	3.3	-1.0	-5.7	-1.1
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	-1.1	-8.2	1.9
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	-12.1	-7.4	-14.6	-13.6
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	-0.2	-0.3	-11.0	-5.1
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
Germany	15.1	-0.2	5.5	11.5	10.0	9.0	2.5	6.4	8.4	12.4	17.7	21.5	10.3	3.7	-7.0	3.1
Estonia	10.1	-6.8	-4.7	5.9	1.1	11.9	1.0	-0.2	0.3	9.4	11.3	20.6	10.9	-0.3	-4.3	0.0
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	11.8
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	-2.0	-4.1	-3.2
Spain	-2.4	5.4	5.7	2.3	0.7	2.0	3.0	9.4	6.6	4.1	2.2	8.3	8.1	-4.7	0.8	3.6
France	5.5	-0.8	1.1	5.5	5.5	6.1	1.1	7.7	6.6	7.6	8.3	11.8	6.4	4.1	-0.7	1.7
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	-6.6	1.1	-11.4	-9.0
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	-4.4	-6.7	-9.3	-5.8
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	-3.6	-3.3	-4.4
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	-2.1	-3.6	-14.4	-15.0
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
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
Hungary	-9.7	-6.4	1.3	0.5	-0.4	-2.8	-2.0	-2.7	-5.8	1.7	3.7	8.0	-7.3	-7.5	-9.8	-7.9
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	6.9	14.2
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	12.5	7.8	16.7
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	-1.1	3.5
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	-2.9
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	4.5	4.6
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	-15.5	-16.4
Slovenia	6.9	-3.9	-1.8	2.7	8.8	11.2	10.8	5.0	2.0	9.7	13.7	20.2	2.4	7.1	-3.8	1.8
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	3.3	-2.6	-9.4	-13.8
Finland	9.6	2.1	-0.2	12.4	13.9	14.4	5.2	8.7	12.4	18.9	39.5	21.3	8.4	4.8	-1.1	3.5
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	2.7	-4.2	-9.4	-5.8
Iceland	75.9	44.9	40.9	31.0	39.2	39.8	62.6	54.5	62.8	62.7	51.5	68.3	72.8	38.8	64.9	37.4*
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	33.3
Norway	10.2	-3.1	0.7	4.3	5.4	10.0	3.0	5.5	13.1	9.7	18.1	10.9	6.5	3.1	0.0	0.8
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	3.7	4.3	0.0	8.7

Note: Data for 2023 and 2024 are provisional.

* Data for Iceland for April 2024 was estimated using the latest available provisional data.

Source: Eurostat (online data code: demo_mexrt)

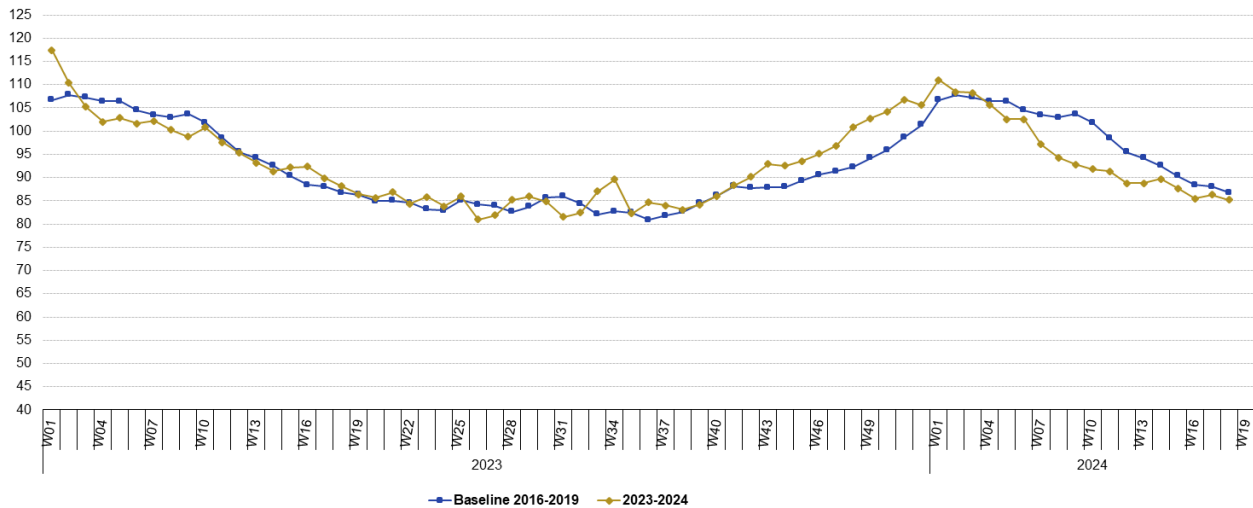
eurostat

Table 1: Excess mortality indicator Source: Eurostat (demo_mexrt)

Recent data on weekly deaths in the EU

During the weeks of April 2024, there were approximately 4 229 fewer deaths in the EU compared with the 2016-2019 baseline. 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 April 2024. The lowest number of additional deaths was recorded in the third week of April 2024, with 939 fewer deaths than the 2016-2019 baseline. Compared with the previous year, in April 2023, there were 16 422 additional deaths in the EU compared with the 2016-2019 baseline. Since February 2024, the number of additional deaths per week has turned negative.

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



Note: The vertical y-axis does not start at 0.
Weekly deaths data for Italy (weeks 14-18) are not available.
The EU aggregate for April 2024 (weeks 14-18) was produced based on the latest provisional data and estimates.
Source: Eurostat (online data code: demo_r_mwk_ts)

eurostat

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

During the first week of April 2024 (week 14), the Netherlands recorded the highest number of additional deaths (467). Germany and Spain followed with 366 and 290 additional deaths respectively.

In the second week of April 2024 (week 15), the Netherlands had the highest number of additional deaths among the EU countries with 568 deaths, followed by France with 384 and Germany 333 additional deaths.

During the third week of April 2024 (week 16), Germany, the Netherlands and Spain recorded the highest number of additional deaths with Germany registering 585, the Netherlands 401 and Spain 375 additional deaths.

In the last week of April 2024 (week 17), Germany continued to registered the highest number of additional deaths (1 000), followed by France with 526 and Spain with 520 additional deaths.

Table 2 below shows the number of deaths in EU countries for the entire April 2024 as well as, where data are available, the most affected regions of the countries.

Deaths by country and the most affected region in April 2024

(Number of deaths)

Country	Total deaths	Most affected NUTS-3 region	Deaths in the most affected region
Belgium	9 006	Arr. Antwerpen	810
Bulgaria	7 580	Sofia	1 056
Czechia	8 548	:	:
Denmark	4 637	Østjylland	692
Germany*	78 795	:	:
Estonia**	1 271	:	:
Ireland**	2 837	:	:
Greece	9 501	Kentrikos Tomeas Athinon	880
Spain	35 062	Barcelona	3 976
France	49 697	Nord	1 893
Croatia**	3 861	:	:
Italy	48 445	:	:
Cyprus**	474	:	:
Latvia	2 042	Rīga	612
Lithuania	3 055	Vilniaus apskritis	770
Luxembourg**	362	:	:
Hungary	9 594	Budapest	1 485
Malta	326	:	:
Netherlands**	14 240	Groot-Rijnmond	1 126
Austria	6 750	Wien	1 232
Poland	31 957	Miasto Warszawa	1 391
Portugal	9 429	Grande Lisboa	1 707
Romania	17 888	:	:
Slovenia*	1 665	:	:
Slovakia	3 720	:	:
Finland	4 650	Helsinki-Uusimaa	1 113
Sweden	7 190	Stockholms län	1 198
Iceland*	:	:	:
Liechtenstein**	28	:	:
Norway	3 386	Viken	824
Switzerland	5 768	Zürich	809

Note: 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)

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 from 2021 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. At the end of April 2021, the CSO started publishing a time series from October 2019 until the most recent weeks, using death notices (see [the CSO website](#)). For the purpose of this release, Eurostat is comparing the new 2020-2021 web-scraped series with a 2016-2019 baseline built using official data. The CSO is periodically assessing the quality of these data.

Weekly deaths data for Italy for weeks 14-18 (April 2024) are not available. Data for Czechia and Slovakia for week 18 (April 2024) are also unavailable. The EU aggregate and weekly deaths indicator for April 2024 were produced based on provisional data and the latest available weeks for Italy. For Czechia and Slovakia, the average of weeks 16 and 17 was used to calculate the EU aggregate for week 18 of 2024. Data for Iceland for week 18 are not available. To calculate the excess mortality indicator for Iceland (April 2024), the average of weeks 16 and 17 was used.

Data for several countries were recalculated from 2021 onwards by applying the new coefficients of data completeness transmitted by National Statistical Institutes in May 2024. For more information about Methodology, please consult [Excess Mortality Metadata \[1\]](#).

The excess mortality indicator does not distinguish between the causes of death. However, it provides additional insight into the impact of the COVID-19 crisis on European societies. It should be stressed again that while a substantial increase in excess mortality largely coincided with a COVID-19 outbreak in each country, the indicator did not make a distinction between causes of death and did not differentiate between sex and age class. During the COVID-19 pandemic, statistics on excess deaths provided information about the burden of mortality potentially related to the pandemic, thereby covering not only deaths that were directly attributed to the virus but also those

indirectly related to it. In addition to confirmed deaths, excess mortality captured COVID-19 deaths that were not correctly diagnosed and reported, as well as deaths from other causes that might have been attributed to the overall crisis situation. It also accounted for the reduction in deaths from other causes, such as accidents that did not occur due, for example, to restrictions on commuting or travel during the lockdown periods.

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 more 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