



## CMI mortality monitor – week 42 of 2024

This update is for week 42 of 2024, ending on 18 October 2024 and published on 30 October 2024. The [CMI website](#) has details of the calculation methods and previous updates. Results are based on the date of registration of deaths. Using date of occurrence, if available, may give different results.

**Note:** Since 9 September 2024 death registration reforms means that the five-day period for registering a death starts on the date that the registrar receives a signed medical certificate of cause of death from the medical examiner, or relevant notification from the coroner. Previously, deaths should legally have been registered within five days of the death occurring or the date on which a body was found (including weekends and bank holidays), unless a coroner was involved. This change may have affected registration delays since 9 September and, therefore, the statistics covering recent weeks contained in this monitor should be treated with care.

**Chart 1: Weekly standardised mortality rates in England & Wales for 2011-2019 and 2022-2024**

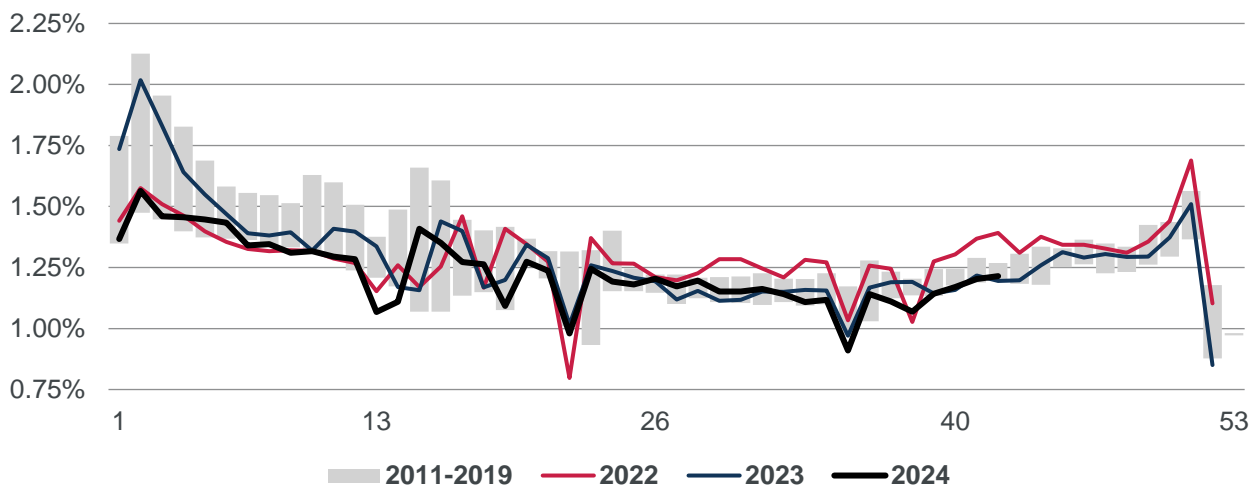


Chart 2 shows cumulative standardised mortality rates relative to the ten-year average for 2014-2023, as a proportion of the full year's mortality for the 2014-2023 average. While we compare to a ten-year average, this is not intended as a measure of likely or 'normal' deaths for 2024.

Under this measure, cumulative standardised mortality to week 42 of 2024 is 3.8% below the ten-year average.

**Chart 2: Cumulative standardised mortality rate compared to the 2014-2023 average**

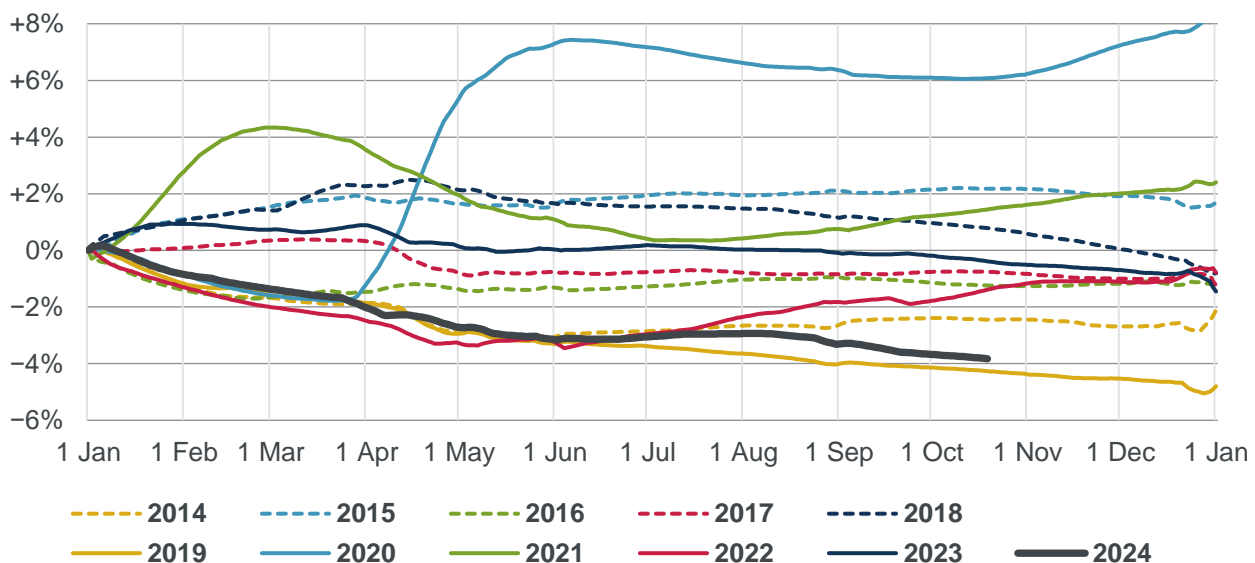




Chart 3 shows the cumulative annual standardised mortality improvement for 2024 and the previous ten years. The cumulative improvement for year N is the reduction in cumulative mortality from year N-1 to year N, as a proportion of full-year mortality for year N-1.

The cumulative mortality improvement to week 42 of 2024 (relative to 2023) is +3.5%.

Chart 3: Cumulative annual standardised mortality improvement

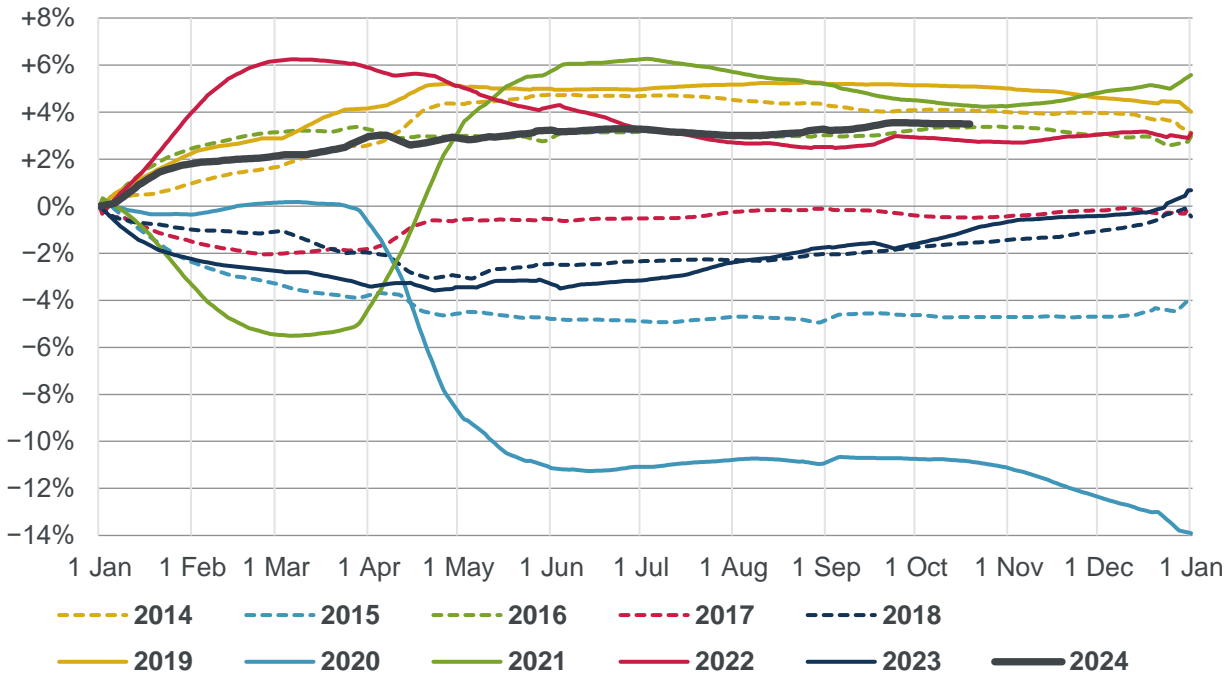


Chart 4: Weekly deaths involving COVID-19 in 2022-2024

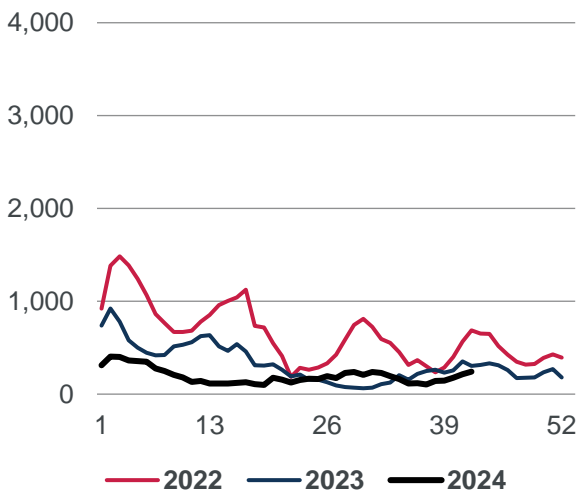
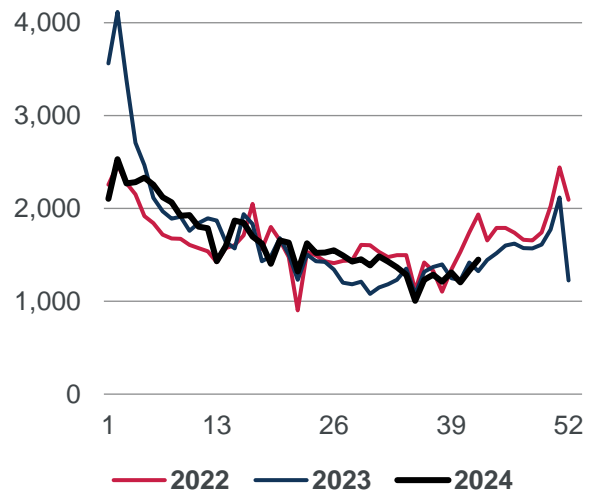


Chart 5: Weekly deaths involving influenza or pneumonia in 2022-2024





## Data source

The provisional weekly deaths are available from the ONS:

- <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales>

## Notes on methods and data

Full details of the methods used are included in [Working Paper 111](#). Our analysis is based on Standardised Mortality Rates (SMRs). These adjust the provisional weekly deaths data published by the ONS to control for changes in the size, age and gender distribution of the population over time. We note that mortality rates and mortality improvements vary by age, and the results shown are sensitive to the age distribution of the chosen standard population (the 2013 European Standard Population).

We have revised the population data used to produce the mortality monitor from time to time, primarily to reflect results of the 2021 census. The mortality monitor webpage includes a note setting out the most recent changes, which were implemented in the week 29 of 2024 monitor.

Our calculations rely on data for registered deaths, and we are conscious that during the pandemic deaths may have been registered earlier or later than in previous years. Consequently, comparisons of mortality between years during the pandemic and earlier years may not be on a like-for-like basis. Also, results for individual weeks may not be consistent between years due to the timing of public holidays.

In addition, we have noted that the difference between occurrences and registrations of deaths was particularly noticeable around the end of 2022. We discuss this, and further evidence that the pattern of registrations in the first half of 2023 differed from earlier years, in Appendix 2 to the mortality monitor for week 1 of 2024. Please note that the ONS has not published updated monthly occurrences data since July 2023.

Since 9 September 2024 death registration reforms means that the five-day period for registering a death starts on the date that the registrar receives a signed medical certificate of cause of death from the medical examiner, or relevant notification from the coroner. Previously, deaths should legally have been registered within five days of the death occurring or the date on which a body was found (including weekends and bank holidays), unless a coroner was involved. This change may have affected registration delays since 9 September and, therefore, the statistics in monitors close to this change should be treated with care.

## Use of this document

The CMI disclaims any liability from use of or reliance on these calculations, including in relation to financial transactions such as longevity swaps; and the CMI does not guarantee that it will continue to publish updates. Please also see the reliances and limitations, disclaimer, and copyright notice on the final page of this document.

## TAS compliance

This paper is intended to translate publicly available demographic information published by the Office for National Statistics and similar bodies into indicative mortality measures to illustrate recent mortality experience primarily in England & Wales. The paper is intended for use by actuaries and other parties interested in detailed mortality statistics and is for information only.

The paper complies with the principles in the Financial Reporting Council's Technical Actuarial Standard "TAS 100: General Actuarial Standards". Any person using this paper should exercise judgement over its suitability and relevance for their purpose.

## Reliances and limitations

The purpose of the weekly mortality monitor is to provide regular updates on standardised mortality in England & Wales during the coronavirus pandemic, adjusting ONS data to allowing for changes in the size and age of the population.

The mortality monitor reports on all-cause, COVID-19, and influenza and pneumonia mortality. It does not offer any view on other causes of death or reasons for changes in mortality rates.



The CMI aims to produce high-quality outputs and takes considerable care to ensure that the mortality monitor and the accompanying spreadsheet of results are accurate. However:

- We cannot guarantee their accuracy (see the Disclaimer).
- There is a reliance on the data published by the ONS which is described as “provisional”. We are unable to quantify the impact on the results of the monitor of any future revisions to provisional data.
- We have also applied judgement and assumptions in deciding on the calculation methods and the presentation of results.
- Anyone using the results of the mortality monitor should ensure that it is appropriate for their particular use and note that care is needed when estimating full year experience from partial year experience. This is particularly true during the coronavirus pandemic.
- Population estimates for the latest years reflect our own estimates and are less certain than published ONS figures for earlier years.

**Disclaimer:** This document has been prepared by and/or on behalf of Continuous Mortality Investigation Limited (CMI). The CMI does not accept any responsibility and/or liability whatsoever for the content or use of this document. Whilst care has been taken during the development of the document, CMI does not (i) warrant its accuracy; or (ii) guarantee any outcome or result from the application of this document or of any of CMI’s work (whether contained in or arising from the application of this document or otherwise). You assume sole responsibility for your use of this document, and for any and all conclusions drawn from its use. CMI hereby excludes all warranties, representations, conditions and all other terms of any kind whatsoever implied by statute or common law in relation to this document, to the fullest extent permitted by applicable law. If you are in any doubt as to using anything produced by CMI, please seek independent advice.

**Copyright:** You may reproduce the contents of this document free of charge in any format or medium provided it is:

1. reproduced accurately and is unaltered;
2. not used in a misleading context; and
3. correctly referenced and includes both CMI’s Disclaimer notice set out above and CMI’s copyright notice, as follows:

© Continuous Mortality Investigation Limited.

Continuous Mortality Investigation Limited (“CMI”) is registered in England & Wales

Company number: 8373631

Registered Office: 1-3 Staple Inn Hall, High Holborn, London, WC1V 7QJ

Correspondence address: Two London Wall Place, 123 London Wall, London, EC2Y 5AU

Email: [info@cmilimited.co.uk](mailto:info@cmilimited.co.uk)

Tel: 020 7776 3820

Website: [www.cmilimited.co.uk](http://www.cmilimited.co.uk) (redirects to [www.actuaries.org.uk](http://www.actuaries.org.uk))

Continuous Mortality Investigation Limited is wholly owned by the Institute and Faculty of Actuaries.