

# CMI mortality monitor – week 11 of 2023

This update is for week 11 of 2023, ending on 17 March 2023 and published on 28 March 2023. The <u>CMI</u> website has details of the calculation methods and previous updates.

Table 1: Deaths registered in England & Wales in week 11 of 2023

	Male	Female	Total
"Expected" registered deaths (based on week 11 of 2019)	5,573	5,537	11,110
Actual registered deaths, from all causes	6,226	5,907	12,133
Excess deaths (and as a percentage of expected)	653 (12%)	370 (7%)	1,023 (9%)
Mentions of COVID-19 on the death certificate	284	275	559

Table 2: Cumulative excess deaths

	England & Wales	United Kingdom
From the start of the pandemic (29 Feb 2020 to 17 March 2023)	151,200	168,900
From week 1 of 2023 (31 Dec 2022 to 17 March 2023)	15,500	17,500

Chart 1: Weekly standardised mortality rates in England & Wales for 2011 to 2023

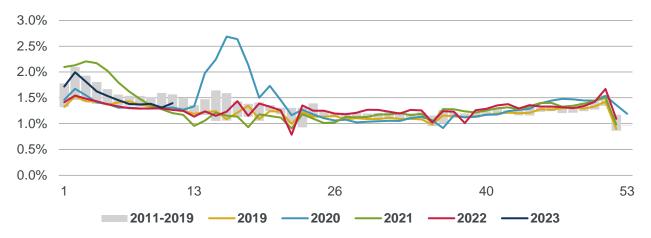


Chart 2: Weekly excess deaths, deaths with COVID on the death certificate, and deaths with a positive test – in the past 26 weeks

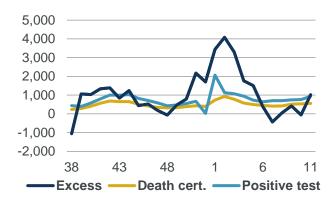


Chart 3: Weekly COVID deaths and Non-COVID excess (Excess minus COVID deaths) – in the past 26 weeks

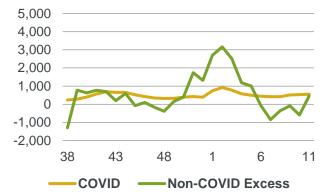




Chart 4 shows cumulative standardised mortality rates relative to cumulative mortality in 2019, as a proportion of mortality for 2019 as a whole. We use 2019 as the comparator as this is consistent with the excess deaths calculation above.

Under this measure, cumulative standardised mortality to week 11 of 2023 is 2.7% above 2019.

Chart 4: Cumulative standardised mortality rate compared to 2019

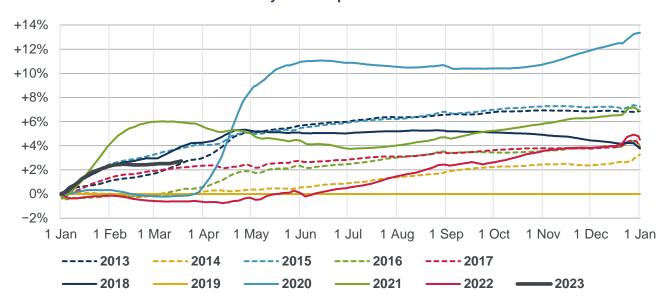
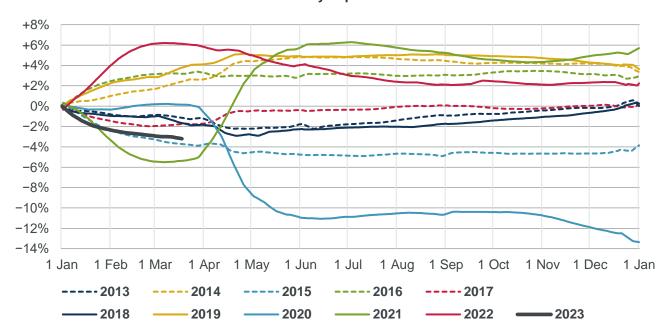


Chart 5 shows the cumulative annual standardised mortality improvement for 2023 and the previous ten years. The cumulative improvement for year N is the reduction in cumulative mortality from year N-1 to year N, as a proportion of full-year mortality for year N-1.

The cumulative mortality improvement to week 11 of 2023 (relative to 2022) is -3.2%.

The cumulative mortality improvement between 2019 and 2023 is -2.7% to week 11 of 2023.

Chart 5: Cumulative annual standardised mortality improvement





#### **Data sources**

The provisional weekly deaths are available from:

- ONS (England & Wales)
   <a href="https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales">https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales</a>
- NRS (Scotland) https://www.nrscotland.gov.uk/covid19stats
- NISRA (Northern Ireland)
   https://www.nisra.gov.uk/statistics/death-statistics/weekly-death-registrations-northern-ireland

The daily UKHSA data for deaths of people within 28 days of a positive test result for COVID-19 up to week 11 are available from <a href="https://coronavirus.data.gov.uk/details/deaths">https://coronavirus.data.gov.uk/details/deaths</a>.

#### **Notes on method**

Full details of the methods used for results based on the ONS data are included in <u>Working Paper 111</u>. 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).

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.

### 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 analyse recent mortality in England & Wales. It complies with the principles in the Financial Reporting Council's Technical Actuarial Standard "TAS 100: Principles for Technical Actuarial Work". 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 and COVID-19 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 third parties, particularly the ONS data which is described as "provisional".
- 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.



 These figures do not allow for the effect that the census may have on ONS mid-year population estimates in 2021 and prior 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: 7th floor, Holborn Gate, 326-330

High Holborn, London, WC1V 7PP

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

Email: info@cmilimited.co.uk

Tel: 020 7776 3820

Website: www.cmilimited.co.uk (redirects to www.actuaries.org.uk)