

Article

Updating ethnic and religious contrasts in deaths involving the coronavirus (COVID-19), England: 24 January 2020 to 23 November 2022

Estimates of COVID-19 mortality rates by ethnic group and religion using linked data from the Office for National Statistics' Public Health Data Asset.

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Release date:
22 February 2023

Next release:
To be announced

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1 . Main points

- In the latest period (since 10 January 2022, when Omicron became the main variant of the SARS-CoV-2 virus), we see a continuing decrease in the rate of deaths involving coronavirus (COVID-19) for most ethnic groups.
- COVID-19 mortality rates decreased for males and females from the Bangladeshi, Black Caribbean, Pakistani and Other ethnic groups, and females in the Black African group, when Omicron was the main variant compared with the Delta variant period; in contrast, there was a small increase in COVID-19 mortality for White British males and females.
- Unlike earlier in the coronavirus pandemic, during the Omicron period, there is no longer evidence of ethnic minority groups having a significantly higher COVID-19 mortality rate compared with the White British group; in fact, males in the Black African, Black Caribbean, Chinese and Other ethnic groups had lower mortality rates involving COVID-19 than the White British group, while females in the Black African group had lower rates than the White British group.
- In the Omicron period, the White British group had the highest all-cause mortality rates (deaths from all causes) for both males and females when compared with all other ethnic groups, apart from the Mixed ethnic group for males, indicating a return to pre-pandemic all-cause mortality patterns.
- For both males and females, the Muslim group, which previously experienced among the highest rates of COVID-19 mortality, saw notable decreases in COVID-19 mortality in the most recent period when compared with earlier in the pandemic; in fact, the Omicron period marked the first period since wave 1 of the pandemic where Muslim males and females did not have the highest rate of COVID-19 mortality.
- In contrast, males and females identifying as Christian or “no religion” saw a small increase in COVID-19 mortality between the Delta and Omicron periods.

Time periods in this release relate to when different coronavirus (COVID-19) variants were dominant. The dates for these periods are outlined in Section 2 of this release. Multiple other factors are likely to have affected these patterns, including changes in infection levels, rollout of the vaccine programme and changes in immunity levels from prior infection.

2 . Overview

This release updates previous analyses on deaths involving coronavirus (COVID-19) by [ethnic group](#) and [religious group](#) to include deaths between 24 January 2020 to 23 November 2022 registered by 7 December 2022. Because of low counts in some ethnic groups, [previous analyses presented rates for 10 aggregated ethnicity categories](#). In this article we are, for the first time, including age-standardised mortality rates for the whole coronavirus pandemic period using the more detailed [18 category ethnicity groups from the 2011 Census](#).

To understand how patterns in rates of deaths involving COVID-19 have changed over the course of the pandemic, this release presents mortality rates for five time periods, based on specific waves of infections, or when certain variants were dominant. The time periods used in this release allow for time to elapse between new infections and their effects on rates of death (see Section 5: Data Sources and quality). They are defined as:

- the Wave 1 (wild-type) period, which includes deaths occurring between 24 January 2020 (the date when the first COVID-19 case was reported in the UK) and 11 September 2020
- the Wave 2 (wild-type) period, which includes deaths occurring between 12 September 2020 and 8 January 2021
- the Alpha period, which includes deaths occurring between 9 January 2021 and 12 June 2021
- the Delta period, which includes deaths occurring between 13 June 2021 and 9 January 2022
- the Omicron period, which includes deaths occurring between 10 January 2022 and is ongoing

3 . Results

In the latest period (since 10 January 2022 when Omicron became the main variant), we continue to see a decline in the rate of deaths involving coronavirus (COVID-19) for most ethnic groups. For all ethnic groups and for most religious groups, rates of deaths involving COVID-19 were highest prior to 13 June 2021, when Delta became the dominant variant. For context, by June 2021, it is estimated that [over 90% of those aged 50 years and over and 65% of those aged 18 years and over in England had received two vaccinations](#) from the vaccine rollout. However, vaccination coverage varied by ethnic and religious group. While not the focus of this release, [previous publications have used modelling techniques](#) to explore the extent to which differences in mortality rates can be explained by differences in socio-demographic and economic factors, health and vaccination coverage.

During the Omicron period, we no longer see evidence of ethnic minority groups having a statistically significantly higher COVID-19 mortality rate compared with the White British group. This is in contrast with [patterns observed earlier in the coronavirus pandemic](#), where rates of deaths involving COVID-19 were higher for many ethnic minority groups compared with the White British group.

The patterns in all-cause mortality by ethnic group observed since June 2021 suggests a return to pre-pandemic all-cause mortality rates. [Our previous release](#) showed that for the period 24 January 2020 to 16 February 2022, all-cause mortality rates were higher for males and females in the Bangladeshi ethnic group and males in the Black Caribbean and Pakistani ethnic groups compared with the White British ethnic group. However, during the Omicron period, all-cause mortality patterns are more similar to [those observed prior to the pandemic \(2017 to 2019\)](#). In the period 2017 to 2019, the White group (including the White British, White Irish, Gypsy and Irish Traveller and Other White groups) had higher age-standardised mortality rates compared with all other ethnic groups, apart from the Mixed ethnic group (consisting of White and Black Caribbean; White and Black African; White and Asian; any other Mixed or Multiple ethnic background).

New analysis using more detailed 18 category ethnicity groups from the 2011 Census shows that over the whole pandemic period, COVID-19 mortality rates for males were highest for the Bangladeshi and Pakistani groups. For females, rates for deaths involving COVID-19 were also highest for the Bangladeshi and Pakistani groups. However, these were not significantly higher than the Gypsy and Irish Traveller group (third highest) or the Other Black group (fourth highest). Over the whole pandemic period, rates of deaths for males and females from all causes were highest for the Gypsy and Irish Traveller group. Males and females in the White and Black Caribbean group and Irish group, and males in the Bangladeshi group, also had higher all-cause mortality rates compared with the White British group.

In the latest period, those identifying as Muslim and those in the “no religion” category had lower COVID-19 mortality rates than those identifying as Christian (the largest group) for males. For females, those identifying as Jewish had lower COVID-19 mortality rates compared with the Christian group.

Figure 1: In the latest period, there is no longer evidence that rates of deaths involving coronavirus (COVID-19) are significantly higher for ethnic minority groups compared with the White British group

Age-standardised mortality rates (ASMR) of deaths involving COVID-19 for those aged 10 to 100 years by ethnic group and sex, England: 24 January 2020 to 23 November 2022

Notes:

1. Office for National Statistics (ONS) figures based on death registrations up to 7 December 2022, for deaths involving COVID-19 that occurred between 24 January 2020 to 23 November 2022, of people aged 10 to 100 years that could be linked to the 2011 Census and General Practice Extraction Service Data for Pandemic and Planning Research; these figures are provisional.
2. The age-standardised mortality rate (ASMR) for groups with low deaths (10 to 19) should be interpreted with caution because of small numbers.

Download the data

[.xlsx](#)

Figure 2: Rates of deaths involving coronavirus (COVID-19) were lower for most religious groups in the Omicron period when compared with earlier in the coronavirus pandemic

Age-standardised mortality rates (ASMR) of deaths involving COVID-19 for those aged 10 to 100 years by religion and sex, England: 24 January 2020 to 23 November 2022

Notes:

1. Office for National Statistics (ONS) figures based on death registrations up to 7 December 2022, for deaths involving COVID-19 that occurred between 24 January 2020 to 23 November 2022, of people aged 10 to 100 years that could be linked to the 2011 Census and General Practice Extraction Service Data for Pandemic and Planning Research; these figures are provisional.
2. The age-standardised mortality rate (ASMR) for groups with low deaths (10 to 19) should be interpreted with caution because of small numbers.

Download the data

[.xlsx](#)

4 . Ethnic and religious contrasts in deaths involving coronavirus (COVID-19) data

[Updating ethnic contrasts in deaths involving the coronavirus \(COVID-19\), England](#)

Dataset | Released 22 February 2023

Age-standardised mortality rates (ASMRs) for deaths involving COVID-19 by ethnic group, England.

[All data relating to: Deaths involving COVID-19 by religious group, England](#)

Dataset | Released 22 February 2023

Age-standardised mortality rates (ASMRs) and hazard ratios for deaths involving COVID-19 by religious group, England.

5 . Data sources and quality

These analyses use data from our Public Health Data Asset (PHDA), and build on the methods used in our [previous publications](#). The PHDA combines records from the 2011 Census, death registrations, [Hospital Episode Statistics \(HES\)](#) and primary care records retrieved from the [General Practice Extraction Service \(GPES\) Data for Pandemic Planning and Research \(GDPPR\)](#), with England coverage only. Information about these data sources, how they have been linked, and the methods used for previous publications can be found in our [Deaths involving COVID-19 by religious and ethnic group, England methodology](#).

The study population comprised 40.2 million people (aged 10 to 100 years) who were counted at the 2011 Census and living in either private households or communal establishments in England at the start of coronavirus (COVID-19) pandemic (24 January 2020). This analysis uses 2011 Census data instead of data from Census 2021 to allow for full coverage of the pandemic period. It is important to note that completeness of the linkage between the 2011 Census, death registrations, Hospital Episode Statistics (HES) and General Practice Extraction Service (GPES) Data for Pandemic Planning and Research (GDPPR) [varies by ethnic group](#).

This update presents provisional analysis of deaths involving COVID-19 by ethnic and religious group in England by the period in which each COVID-19 variant became dominant. These dates are based on findings from the [COVID-19 Infection Survey](#). To allow for a lag between new infections and effects on death rates, the time periods used in this analysis begin three weeks after dates relating to changes in infections. For more information on the time periods used in this analysis, see [Section 2: Overview](#).

Quality

More quality and methodology information on the strengths, limitations, appropriate uses, and how the data were created is available in our [Updating ethnic contrasts in deaths involving the coronavirus \(COVID-19\), England: 10 January 2022 to 16 February 2022 article](#).

6 . Related links

[Coronavirus and vaccination rates in people aged 18 years and over by socio-demographic characteristic, region and local authority, England](#)

Dataset | Released 9 December 2022

Coronavirus (COVID-19) vaccination rates for people aged 18 years and over in England. Estimates by socio-demographic characteristic, region and local authority.

[Coronavirus \(COVID-19\) Infection Survey, characteristics of people testing positive for COVID-19, UK: 22 November 2022](#)

Bulletin | Released 22 November 2022

Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey.

[Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019](#)

Article | Released 19 August 2021

Experimental analysis of ethnic differences in life expectancy and cause-specific mortality in England and Wales based on 2011 Census and death registrations.

7 . Cite this article

Office for National Statistics (ONS), released 22 February 2023, ONS website, article, [Updating ethnic and religious contrasts in deaths involving coronavirus \(COVID-19\): 24 January 2020 to 23 November 2022](#)

