

Article

Coronavirus (COVID-19) related deaths by disability status, England and Wales: 2 March to 14 July 2020

Comparison of deaths where the coronavirus (COVID-19) was mentioned on the death certificate by broad age group, sex and disability status, using linked census and mortality records on deaths registered up to 21 July 2020.

Contact:
Catherine Putz and David Ainslie
life.course@ons.gov.uk
+44 (0)1633 455847

Release date:
18 September 2020

Next release:
To be announced

Table of contents

1. [Main points](#)
2. [Overview of COVID-19-related deaths by disability status](#)
3. [Breakdown of deaths involving COVID-19 by age, sex and disability status](#)
4. [Age-standardised mortality rates of death involving COVID-19 by disability status](#)
5. [Disability status differences in deaths involving COVID-19, adjusted for socio-demographic factors](#)
6. [Coronavirus \(COVID-19\) related deaths by disability status data](#)
7. [Glossary](#)
8. [Data sources and quality](#)
9. [Related links](#)

1 . Main points

- Provisional analysis, for the period 2 March to 14 July 2020, compares the risk of death involving the coronavirus (COVID-19) according to a person's disability status as recorded in the 2011 Census; people are counted as disabled if they said their daily activities were limited a little or limited a lot by a health problem or disability lasting or expected to last at least 12 months, in this data source.
- Disabled people (as defined) made up almost 6 in 10 (59%) of all deaths involving COVID-19 in this period; disabled people made up around 16% of the study population followed from the 2011 Census.
- Among all deaths involving COVID-19 of males aged 9 to 64 years in this period, the proportion made up by disabled people (those limited a little or limited a lot in their day-to-day activities) was smallest at 39%; among all deaths involving COVID-19 of females aged 65 years and over in this period, the proportion made up by disabled people was largest, at 67% of these deaths.
- Among both males and females aged 9 years and over, those who were either disabled and limited a lot or disabled and limited a little in 2011 had a [statistically significant](#) higher age standardised mortality rate (ASMR) of death involving COVID-19 in this period than those who were non-disabled; male and female disabled people who were limited a lot had a statistically significantly higher ASMR of death involving COVID-19 than disabled people who were limited a little.
- Disabled males whose activities were limited a lot at the 2011 Census had an overall age-standardised rate of death involving COVID-19 of 240.8 deaths per 100,000; for disabled females, the rate was 169.9 deaths per 100,000; the equivalent rates for males and females who were non-disabled in 2011 were 84.2 and 44.4 deaths per 100,000 respectively.
- After adjusting for region, population density, socio-demographic and household characteristics, the relative difference in mortality rates between those disabled and limited a lot and those non-disabled was 2.4 times higher for females and 2.0 times higher for males.
- Our research was based on linking deaths to the 2011 Census, the most timely data available, including people aged 9 years and over; we used a regression model to adjust for specific characteristics for people in private households at the time of the census; we aim to undertake further analysis that takes into account other characteristics such as pre-existing health conditions.

2 . Overview of COVID-19-related deaths by disability status

This article presents provisional analyses of deaths involving the coronavirus (COVID-19) by self-reported disability status, as collected in the 2011 Census in England and Wales. It includes deaths that occurred between 2 March and 14 July 2020, which were registered by 21 July 2020, providing an update to the previous article [Coronavirus \(COVID-19\) related deaths by disability status, England and Wales: 2 March to 15 May 2020](#).

Disability is one of the [protected characteristics](#) under [the Equality Act 2010](#). The population [prevalence of disability in 2011](#) among those resident in private households, as measured by the 2011 Census, was 17%. [More recent figures from the Family Resources Survey 2018 to 2019](#) (using a different measure of disability) (XLSX, 129KB) reported the prevalence of disability as 11.6 million people in England (21% of the population) and 0.8 million people in Wales (25% of the population). Among the study population of usual residents in private households in 2011 who were still alive on 2 March 2020, the population prevalence of disability was 16%.

Further analyses of deaths involving COVID-19 by other protected characteristics such as [ethnicity](#) will be published over the coming months.

Throughout this article, up to July 2020 refers to death occurrences between 2 March and 14 July 2020, with up to May 2020 referring to death occurrences between 2 March and 15 May 2020.

More information is available in the [Data sources and quality](#) section.

3 . Breakdown of deaths involving COVID-19 by age, sex and disability status

The number of deaths involving the coronavirus (COVID-19) and their percentage distribution across disability categories among the study population to July 2020 is shown in Table 1. Disabled people (those limited a little or limited a lot) made up 6 in 10 (59.5%) of all deaths involving COVID-19 for the period to July 2020 (27,534 of 46,314 deaths). Disabled people made up around 16% of the study population followed from 2 March.

Table 1: Deaths involving COVID-19 by disability status: England and Wales, occurring between 2 March and 14 July 2020

Disability status	Number of COVID-19 deaths	Percentage of COVID-19 deaths	Number of all deaths	Percentage of all deaths
Disabled – limited a lot	14,032	30.3%	59,700	28.0%
Disabled – limited a little	13,502	29.2%	61,021	28.6%
Non-disabled – not limited	18,780	40.5%	92,796	43.5%
Total	46,314	100%	213,517	100%

Source: Office for National Statistics – Coronavirus (COVID-19) related deaths by disability status

Notes

1. Office for National Statistics (ONS) figures based on death registrations up to 21 July 2020 that occurred between 2 March and 14 July 2020 that could be linked to the 2011 Census for the coronavirus (COVID-19) rate of death.
2. Percentage totals do not add up to 100 because of rounding.
3. Deaths were defined using the International Classification of Diseases, 10th Revision (ICD-10). Deaths involving COVID-19 include those with an underlying cause, or any mention, of ICD-10 codes U07.1 (COVID-19, virus identified) or U07.2 (COVID-19, virus not identified). All causes are the total number of deaths registered during the same time period, including those that involved COVID-19.
4. Disability status was defined using the self-reported answers to the 2011 Census question; “Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age” (Yes, limited a lot; Yes, limited a little; and No).

Breaking the deaths down further by age and sex, we see that deaths involving COVID-19 for the period up to July 2020 follow the pattern reported in previous Office for National Statistics (ONS) [COVID-19 releases](#), of being more numerous for males at 54.6% (25,291 of 46,314 deaths) and in people aged 65 years and over (90.5% or 41,930 of 46,314 deaths) compared with those aged under 65 years (Table 2).

Amongst deaths of males aged 9 to 64 years, the proportion made up by disabled people (limited a lot or limited a little) was smallest at 38.5% (1,066 of 2,766 deaths). Amongst deaths of females aged 65 years and over, the proportion made up by disabled females was largest, accounting for 67.2% of this total (13,048 of 19,405 deaths).

Table 2: Deaths involving COVID-19 by age, sex and disability status: England and Wales, occurring between 2 March and 14 July 2020

Disability status	Males		Females	
	Aged 9 to 64 years	Aged 65 years and over	Aged 9 to 64 years	Aged 65 years and over
Disabled – limited a lot	663	6,024	548	6,797
Disabled – limited a little	403	6,588	260	6,251
Non-disabled – not limited	1,700	9,913	810	6,357
Total	2,766	22,525	1,618	19,405

Source: Office for National Statistics – Coronavirus (COVID-19) related deaths by disability status

Notes

1. Office for National Statistics (ONS) figures based on death registrations up to 21 July 2020 that occurred between 2 March and 14 July 2020 that could be linked to the 2011 Census for the coronavirus (COVID-19) rate of death.
2. Deaths were defined using the International Classification of Diseases, 10th Revision (ICD-10). Deaths involving COVID-19 include those with an underlying cause, or any mention, of ICD-10 codes U07.1 (COVID-19, virus identified) or U07.2 (COVID-19, virus not identified). All causes are the total number of deaths registered during the same time period, including those that involved COVID-19.
3. Disability status was defined using the self-reported answers to the 2011 Census question; “Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age” (Yes, limited a lot; Yes, limited a little; and No).

4 . Age-standardised mortality rates of death involving COVID-19 by disability status

Age-standardised mortality rates (ASMRs) allow populations with different age structures to be compared fairly. Disability is more common in older populations; therefore, it is necessary to adjust for population age structure in this way.

Age-standardised rates of deaths involving the coronavirus (COVID-19) among males and females aged 9 years and over per 100,000 of the population at risk are presented in Table 3. It shows that amongst both males and females age 9 years and over, those who were either disabled and limited a lot or disabled and limited a little in 2011 had a [statistically significant](#) higher rate of death involving COVID-19 than those who were non-disabled in the period to July 2020. Furthermore, male and female disabled people who were limited a lot had a statistically significant higher rate of death involving COVID-19 than disabled people who were limited a little.

Table 3: Age-standardised mortality rates for deaths involving COVID-19 per 100,000 population with 95% confidence intervals by sex and disability status: England and Wales

Disability	Males			Females		
	Rate	Lower 95% confidence limit	Upper 95% confidence limit	Rate	Lower 95% confidence limit	Upper 95% confidence limit
Disabled – limited a lot	240.84*	234.16	247.52	169.89*	164.33	175.45
Disabled – limited a little	150.09*	145.87	154.32	85.70*	83.00	88.40
Non-disabled – not limited	84.24	82.63	85.86	44.42	43.37	45.46

Source: Office for National Statistics – Coronavirus (COVID-19) related deaths by disability status

Notes

1. Office for National Statistics (ONS) figures based on death registrations up to 21 July 2020 that occurred between 2 March and 14 July 2020 that could be linked to the 2011 Census for the coronavirus (COVID-19) rate of death.
2. Percentage totals do not add up to 100 because of rounding.
3. Deaths were defined using the International Classification of Diseases, 10th Revision (ICD-10). Deaths involving COVID-19 include those with an underlying cause, or any mention, of ICD-10 codes U07.1 (COVID-19, virus identified) or U07.2 (COVID-19, virus not identified). All causes are the total number of deaths registered during the same time period, including those that involved COVID-19.
4. * indicates a statistically significantly higher rate compared with the Non-disabled – not limited category for the same sex.
5. Disability status was defined using the self-reported answers to the 2011 Census question; “Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age” (Yes, limited a lot; Yes, limited a little; and No).

Figure 1: Males aged 65 years and over who were disabled and limited a lot had the highest age-standardised COVID-19 mortality rate at 860.8 per 100,000

Age-standardised mortality rates for deaths involving COVID-19, by sex, age group and disability status, England and Wales, 2 March to 14 July 2020

Notes:

1. Office for National Statistics (ONS) figures based on death registrations up to 21 July 2020 that occurred between 2 March and 14 July 2020 that could be linked to the 2011 Census for the coronavirus (COVID-19) rate of death.
2. Deaths were defined using the International Classification of Diseases, 10th Revision (ICD-10). Deaths involving COVID-19 include those with an underlying cause, or any mention, of ICD-10 codes U07.1 (COVID-19, virus identified) or U07.2 (COVID-19, virus not identified).
3. Age-standardised mortality rates (ASMRs) of COVID-19-related death can be interpreted as deaths per 100,000 population during the period of investigation.
4. Non-overlapping error bars denote a statistically significant difference in rates of death.
5. Disability status was defined using the self-reported answers to the 2011 Census question; “Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age” (Yes, limited a lot; Yes, limited a little; and No).

[Data download](#)

ASMRs for deaths involving COVID-19 in the period to July 2020, amongst males and females aged 9 to 64 years and aged 65 years and over, are presented in Figure 1, to further explore the data and control for differences in population age structure.

The relative gaps in ASMRs between disabled and non-disabled males and females were largest amongst those aged 9 to 64 years. The largest relative gap was between females aged 9 to 64 years who were disabled and limited a lot who had a rate of death involving COVID-19 10.8 times greater than non-disabled females in this age group. Males aged 9 to 64 years who were disabled and limited a lot had a rate of death involving COVID-19 6.5 times greater than non-disabled males.

Relative gaps in ASMRs between non-disabled and disabled groups were smaller in the 65 years and over age group. Males aged 65 years and over, who were disabled and limited a lot, were 2.4 times more likely and females were 3.1 times more likely to die than their counterparts who were non-disabled.

The ASMRs for males and females were [statistically significantly](#) higher for those aged 65 years and over, than for those aged 9 to 64 years, for all disability status categories. Even within the disabled and limited a lot category, there was a sizable variation between the younger and older age groups considered. For example, disabled and limited a lot males aged 65 years and over had a mortality rate of 860.8 per 100,000 compared with 70.8 per 100,000 for the younger age group, a rate 12.2 times greater.

Females across all age and disability groups had statistically significant lower ASMRs than males. The lowest rate was amongst females aged 9 to 64 years identifying as non-disabled, at 5.1 deaths per 100,000 up to July 2020.

Non-disabled females had the largest difference in rates between the older and younger age groups, with rates for non-disabled females aged 65 years and over (187.9 per 100,000), 37.2 times higher than those aged 9 to 64 years (5.1 per 100,000). The highest rate amongst females was for those aged 65 years and over who were disabled and limited a lot (589.6 per 100,000). This group were 10.8 times more likely to die than those disabled and limited a lot aged 9 to 64 years (54.8 per 100,000).

The relative differences between groups highlighted in this section are similar to [those reported in the period to May 2020](#). Note that comparing absolute differences in rates for the period considered in this article to July 2020 and the period to May 2020 provided in the previous article should be made with caution given the longer time period at risk now considered.

5 . Disability status differences in deaths involving COVID-19, adjusted for socio-demographic factors

Differences in rates of death involving the coronavirus (COVID-19) may be driven by factors related to the risk of being infected, susceptibility to more severe symptoms, and adverse outcomes, such as the inability to survive once infected by the virus.

Factors affecting the risk of infection are likely to include geographic location and population density, living arrangements, socio-economic profile and working conditions. Differences in these characteristics, and what they may imply for current circumstances, may also be associated with the risk of death once infected. More information on how these factors vary across disability status in the 2011 Census can be found in the [technical appendix](#)¹. It is important to note that this analysis has been undertaken at the population level and will not relate to all people's individual circumstances and backgrounds.

We used Cox proportional hazards regression models to estimate whether the rate of death involving COVID-19 remains greater among the disabled population than the non-disabled population (as classified at Census Day 2011), after taking account of a number of geographic, demographic, socio-economic, living arrangement and exposure measures derived from the 2011 Census. The statistical models are explained in the technical appendix.

It is important to account for these factors to enable us to quantify how much of the excess mortality of disabled people can be explained by differences in these factors and how much remains unexplained. The modelling analyses are based on the population enumerated in private households in the 2011 Census. Those resident in communal establishments in 2011 were excluded because these census enumerations did not contain socio-demographic information used in the modelling.

In Figure 2, we show how the risk of death involving COVID-19 varied by disability status for males and females. We report the hazard ratios for each disability status relative to the non-disabled group, after adjusting for age and for the full range of characteristics described. The hazard ratio is a measure of how much greater or lesser was the rate of death involving COVID-19 in the two disabled groups, those whose day-to-day activity was limited a little and those limited a lot, compared with non-disabled people (no limitation with day-to-day activities) used as the reference group.

A hazard ratio greater than one indicates a greater rate of death involving COVID-19 than the reference group, while a hazard ratio less than one indicates a lower rate of COVID-19 mortality than the reference group. In this analysis, using those non-disabled as the reference group, hazard ratios greater than one denote an increased rate of death among disabled people.

The rate of death generally, and specifically death involving COVID-19, is closely related to age. After adjusting for age, males and females from both disabled groups were at greater risk of death involving COVID-19 up to July 2020 compared with those non-disabled. Disabled males whose day-to-day activities were limited a lot were 2.6 times more likely to die in this period, while those whose daily activities were limited a little were 1.8 times more likely to die, compared with the rate of death involving COVID-19 among those who were non-disabled. The corresponding hazard ratios for females were 3.0 and 1.9, respectively.

Comparing with the shorter time period to May 2020, in the period to July 2020, after adjusting for age, the same (to one decimal place) hazard ratios were noted for males and females whose daily activities were limited a little. The hazard ratio for the period to May 2020 was slightly higher for females whose day-to-day activities were limited a lot, at 3.2 for the shorter time period, and slightly lower for males whose day-to-day activities were limited a lot, at 2.5, although these differences were not statistically significant.

Figure 2: The risk of death for females who were disabled and limited a lot was 2.4 times higher than non-disabled females after adjusting for age and other factors

Hazard ratios of death involving COVID-19 by disability status and sex, England and Wales, 2 March to 14 July 2020

Notes:

1. Cox proportional hazards models adjusting for age and the square of age. Fully adjusted models also include region, population density, area deprivation, household composition, socio-economic position, highest qualification held, household tenure, multigenerational household flags and occupation indicators (including key workers and exposure to others) based on Census 2011.
2. Office for National Statistics (ONS) figures based on death registrations up to 21 July 2020 that occurred between 2 March and 14 July 2020 that could be linked to the 2011 Census for the coronavirus (COVID-19) rate of death.
3. Deaths were defined using the International Classification of Diseases, 10th Revision (ICD -10). Deaths involving COVID-19 include those with an underlying cause, or any mention, of ICD-10 codes U07.1 (COVID-19, virus identified) or U07.2 (COVID-19, virus not identified).
4. Risk of death between 2 March and 14 July 2020.
5. Hazard ratios are compared to the reference category of no disability.
6. Disability status was defined using the self-reported answers to the 2011 Census question; "Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age" (Yes, limited a lot; Yes, limited a little; and No).

[Data download](#)

The fully adjusted model illustrates the effect on relative differences in rates of death after controlling for region, population density, area deprivation, household composition, socio-economic position, highest qualification held, household tenure, multigenerational household and occupation (including key workers and exposure to others) in 2011. Therefore, the fully adjusted results show relative differences between non-disabled and disabled groups that are not statistically associated with any of the factors listed by which members of the groups might differ.

Adjusting for the factors noted substantially reduces the estimated risk of death involving COVID-19 for disabled people relative to the non-disabled group. More information on how the hazard ratios change when adjusting for different sets of characteristics can be found in the [Model diagnostics dataset](#). After full adjustment, the rate of death involving COVID-19 for the period up to July 2020 was 1.6 and 2.0 times greater for disabled males whose day-to-day activities were limited a little or limited a lot, respectively, compared with those who were non-disabled. The corresponding hazard ratios for females were 1.6 and 2.4 times greater, respectively.

Comparing with the shorter time period up to May 2020, after fully adjusting the model, similar hazard ratios were noted for males whose day-to-day activities were limited a lot and females in either disabled group, as in the period up to July 2020. The hazard ratio for the period up to May 2020 was slightly lower than in the period up to July 2020 for males whose day-to-day activities were limited a lot, at 1.9 for the shorter period. Although this difference is not statistically significant.

This means a sizeable part of the difference in COVID-19 mortality between disabled and non-disabled groups is explained by the different circumstances in which members of those groups are known to live, such as domains of socio-economic disadvantage. However, these factors do not explain the entirety of the difference, suggesting that other unmeasured characteristics associated with disability are involved that require further investigation.

Individuals from the different disability groups may differ in terms of socio-economic characteristics or health outcomes not included in our model; these differences may relate directly or indirectly to the limitations on activity experienced by disabled people.

Our adjustment for demographic and socio-economic profile has limitations since the characteristics we use were retrieved from the 2011 Census. Therefore, these may not accurately reflect the study population's current circumstances in 2020. In particular, the disability status of individuals is likely to change over this period, with some people who identified as non-disabled at the time of the 2011 Census moving into disability since then (with the opposite also being possible). The heterogeneity of the "non-disabled group" in 2011 regarding current disability status is likely to underestimate the true difference in risk of dying from COVID-19 between disabled and non-disabled people.

Some disabled people may be more likely to suffer from pre-existing health conditions that are associated with worse outcomes among those infected by COVID-19, which we will aim to take account of in future analyses. The percentage of people in the study population who died prior to March 2020 is also greater for people who identified as disabled in the 2011 Census (21.8% and 39.8% of those whose day-to-day activities are limited a little or limited a lot, respectively) compared with those who identified as non-disabled (2.9%), and it is possible that disabled people who survived until March 2020 have different characteristics to those who died before then.

Notes for: Disability status differences in deaths involving COVID-19, adjusted for socio-demographic factors

1. Please note that the hazard ratios found in the technical appendix relate to the period up to May 2020.

6 . Coronavirus (COVID-19) related deaths by disability status data

[Counts of deaths involving COVID-19 and all deaths by disability status, England and Wales](#)

Dataset | Released on 18 September 2020

Counts of coronavirus (COVID-19) related deaths by disability status and age group in England and Wales.

[Counts of deaths involving COVID-19 and all deaths by disability status, Wales](#)

Dataset | Released on 18 September 2020

Counts of coronavirus (COVID-19) related deaths by disability status and age group in Wales.

[Model estimates of deaths involving COVID-19 by disability status, England and Wales](#)

Dataset | Released on 18 September 2020

Hazard ratios of death involving the coronavirus (COVID-19), by disability status and sex, in England and Wales.

[Rates of deaths involving COVID-19 by disability status, England and Wales](#)

Dataset | Released on 18 September 2020

Age-standardised mortality rates (ASMRs) for coronavirus (COVID-19) related deaths, by disability status and other characteristics, in England and Wales.

7 . Glossary

Age-standardised mortality rates

Age-standardised mortality rates (ASMRs) are used to allow comparisons between populations that may contain different proportions of people of different ages. The 2013 European Standard Population is used to standardise rates.

Cox proportional hazards regression model

The Cox proportional hazards regression model is a multiple regression procedure that measures the association between a time-to-event outcome and a characteristic of interest such as disability, while adjusting for other characteristics expected to also be associated with the outcome.

Hazard ratio

A hazard ratio is a measure of the relative differences in the instantaneous rate of mortality between groups. A hazard ratio greater than one indicates the rate of mortality is higher, and likewise, less than one lower in the population group under study compared with a reference group.

Coronaviruses

The World Health Organization (WHO) defines coronaviruses as "a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS)". Between 2001 and 2018, there were 12 deaths in England and Wales due to a coronavirus infection, with a further 13 deaths mentioning the virus as a contributory factor on the death certificate.

Coronavirus (COVID-19)

COVID-19 refers to the "coronavirus disease 2019" and is a disease that can affect the lungs and airways. It is caused by a type of coronavirus. Further information is available from the WHO.

Disability

To define disability in this publication, we refer to the self-reported answers to the 2011 Census question, "Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? - Include problems related to old age" (Yes, limited a lot or yes, limited a little or no). This is slightly different to the current [Government Statistical Service \(GSS\) harmonised "core" definition](#): this identifies as "disabled" a person who self-reports having a physical or mental health condition or illness that has lasted or is expected to last 12 months or more that reduces their ability to carry-out day-to-day activities.

The GSS definition is designed to reflect the definitions that appear in legal terms in the [Disability Discrimination Act 1995](#) and the subsequent [Equality Act 2010](#).

Statistical significance

The [statistical significance](#) of differences noted within the release are determined based on non-overlapping [confidence intervals](#).

8 . Data sources and quality

This article presents provisional analyses of deaths involving the coronavirus (COVID-19) by self-reported disability status, as reported in the 2011 Census in England and Wales. It includes deaths that occurred between 2 March and 14 July 2020, which were registered by 21 July 2020, providing an update to the previous article [Coronavirus \(COVID-19\) related deaths by disability status, England and Wales: 2 March to 15 May 2020](#).

Throughout this article, up to July 2020 refers to death occurrences between 2 March and 14 July 2020, with up to May 2020 referring to death occurrences between 2 March and 15 May 2020.

As disability status is not recorded on the death certificate, this information was retrieved through record linkage of death registrations to the 2011 Census along with other socio-demographic factors.

The 2011 Census question asked:

"Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months? Include problems related to old age?"

- Yes, limited a lot
- Yes, limited a little
- No

Those responding that their day-to-day activities were "limited a lot" or "limited a little" were classified as disabled for the purposes of this analysis. Currently, we do not have data sources that will allow us to analyse mortality statistics by learning disabilities or any other specific type of disability.

While data from the 2011 Census are now nine years old, they are still the best currently available for large-scale analyses. Despite this, because of changes in disability status, it is likely that the number of people who are recorded as having an activity-limiting condition is now an underestimate, because those not limited in 2011 may have developed a long-term health condition over the past nine years that limits their activities or any existing health condition may have worsened in severity causing them to become limited. While transitions out of activity limitation are also possible, this is a less likely effect bearing in mind that reported disability tends to increase with age. As such, these contrasts should be treated as conservative estimates of differences.

Analyses have been restricted to those aged 9 years and over because children aged under 9 years would not have been born and therefore included in the 2011 Census. Immigrants entering the country since the 2011 Census are also excluded.

For estimation of relative differences in rates of death in our modelling, we have restricted the analyses to usual residents enumerated in private households at Census 2011. However, for counts and age-standardised mortality rates we have additionally included those resident in communal establishments in 2011. More details on the data used can be found in the [technical appendix](#).

9 . Related links

[Coronavirus \(COVID-19\) latest analysis and data](#)

Webpage | Updated as and when data become available

Latest data and analysis on coronavirus (COVID-19) in the UK and its effect on the economy and society.

[Deaths registered weekly in England and Wales, provisional](#)

Bulletin | Released weekly

Provisional counts of the number of deaths registered in England and Wales, including deaths involving the coronavirus (COVID-19) pandemic, by age, sex and region, in the latest weeks for which data are available.

[Coronavirus and the latest indicators for the UK economy and society](#)

Bulletin | Released weekly

Early experimental data on the impact of the coronavirus (COVID-19) on the UK economy and society. These faster indicators are created using rapid response surveys, novel data sources and experimental methods.

[Coronavirus and the social impacts on disabled people in Great Britain: July 2020](#)

Article | Published 20 August 2020

The social impacts of the coronavirus pandemic on disabled people in Great Britain based on indicators from the Opinions and Lifestyle Survey.