Article

# Coronavirus and the social impacts on different ethnic groups in the UK: 2020

Estimates from the Understanding Society: COVID-19 Study, 2020, UK Household Longitudinal Study (UKHLS) and Wealth and Assets Survey (WAS) to explore the social impacts of the coronavirus (COVID-19) pandemic on people from different ethnic groups in the UK.

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# 1 . Main points

- Most ethnic groups in the UK experienced a worsening of their self-reported mental health between 2019 and April 2020 (based on their GHQ-12 score), after adjusting for age, sex, socio-economic classification (NS-SEC), change in help and support received since the outbreak of the coronavirus (COVID-19) pandemic, and whether they have a health condition.

- The mental well-being of those in the Indian ethnic group in the UK may have been particularly affected by the pandemic as they reported both greater difficulty with sleep over worry between 2019 and the initial period of lockdown (April 2020) and had higher scores than other groups on a measure of self-reported mental health difficulties (GHQ-12).

- Prior to the pandemic, households headed by someone of Black African or Other Black ethnicity were significantly less likely to have enough formal financial assets to cover a drop in employment income than those from most other ethnic groups after adjusting for age, sex, education, socio-economic classification of the household head, household composition and housing tenure.

- After adjusting for age, around half of working-age adults of White British (46%) and Other White (51%) ethnicities in paid work, both immediately before and during the first period of lockdown, in the UK, reported a decrease in their weekly hours worked in April 2020, compared with one-third of their counterparts of Indian (33%) and Black, African, Caribbean or Black British (33%) ethnicities.

- In April 2020 in the UK, over a quarter (27%) of those from Black, African, Caribbean or Black British ethnic groups reported finding it very or quite difficult to get by financially, significantly more than those from White Irish (6%), Other White (7%), Indian (8%) and Pakistani or Bangladeshi (13%) ethnic groups.

## Statistician's comment

"What today's research shows us is how the impact on different ethnic groups varies and how people's circumstances before the pandemic could affect their experience during the first national lockdown.

Financial resilience was lower among Black African or Other Black households before the pandemic, for example, which would explain why these groups found it harder to manage financially during lockdown. Perhaps unsurprisingly, mental health deteriorated across most ethnic groups during lockdown but was most marked in the Indian group."

Glenn Everett, Deputy Director, Sustainability & Inequalities Division

# 2 . Overview

This release uses data from the UK Household Longitudinal Study (UKHLS) matched with data from the Understanding Society: COVID-19 Study, 2020 to explore the social impacts of the coronavirus (COVID-19) pandemic initial period of lockdown on the health, employment, and living standards of people of different ethnicities in the UK. This release also uses data from the Wealth and Assets Survey (WAS) to understand the financial resilience of different ethnic groups in Great Britain before the pandemic.

This is the first stage in a programme of work in which we intend to follow individuals within the UK Household Longitudinal Study to explore the impacts of the pandemic on their lives over the longer term, particularly focusing on experiences across ethnic groups.

From April 2020, participants from the UKHLS aged 16 years and over were invited to take part in a new monthly online survey measuring the changing impact of the pandemic on the welfare of UK individuals, families and wider communities. We analysed the experiences of different ethnic groups in April 2020, when lockdown restrictions were in place across the UK, comparing with the pre-pandemic situation using baseline information for the same individuals collected in January and February 2020 (where available), and in 2019.

New analysis of the Wealth and Assets Survey 2016 to 2018 data provided additional insight into the financial resilience of different ethnic groups in Great Britain, allowing us to identify which groups were most financially vulnerable prior to the pandemic.

Throughout this analysis, data have been disaggregated to provide the most granular breakdown possible, while producing robust estimates based on sample sizes. Throughout, broader ethnic groups have been referred to in line with the Ethnicity Harmonised standard. For both data sources used in this analysis, it was not possible to disaggregate the Mixed or Multiple ethnic group category[1] and, for the analysis using the UK Household Longitudinal Study, it was also not possible to disaggregate the Black, African, Caribbean or Black British ethnic category[2] .

Because of the varying age profiles within each ethnic group, all estimates within this publication have been adjusted for age as a minimum. For some main outcomes, adjustments have also been made for additional factors, enabling us to consider a wider range of potential factors that may have affected the differences seen, alongside ethnicity.

As discussed in Limitations in the Data sources and quality section, it was not possible to adjust for all relevant factors in this analysis. As such, estimates should not be used to infer causality but instead to determine whether relationships between ethnic groups and notable outcomes exist when holding specific factors constant.

Throughout this article, only statistically significant differences are commented on in the text. These have been identified using significance testing (based on p-values less than 0.05) but confidence intervals have been included to indicate the uncertainty around the estimates produced.

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**Notes for: Overview**

1. The Mixed/Multiple ethnic group encompasses those who identify as the following ethnicities: White and Black Caribbean; White and Black African; White and Asian; Any other Mixed/Multiple ethnic background; and any mixed or multiple ethnic groups (in Scotland).

2. In England, Wales and Northern Ireland, this group encompasses those who identify as African, Caribbean, and any other Black, African, or Caribbean background. In Scotland, this encompasses those who identify as: African, African Scottish or African British; any other African, Caribbean, Caribbean Scottish or Caribbean British; Black, Black Scottish, or Black British; and any other Caribbean or Black ethnic groups.

# 3 . Health

## Access to services

Overall, the use of NHS services among those with a health condition decreased from 91% to 79% between the year ending February 2020 and April 2020, including use of GP services, NHS 111, prescription medicine, outpatient, and inpatient care. Similarly, the use of community health services among those with a health condition decreased from 58% to 44% over this period, including use of pharmacies, over-the-counter medicine, carers and psychotherapists.

However, there were no significant differences between ethnic groups in terms of access to or use of any NHS or community health services for those with an existing health condition. This might either be that there is no variability in terms of access to services between ethnic groups, or because sample sizes are too small to reveal any differences.

## Loss of sleep over worry

At the start of the UK-wide lockdown, across all ethnic groups, people reported an increased or persistent loss of sleep over worry (Figure 1). After adjusting for age, over one-third (36%) of those from the Indian ethnic group reported this, compared with less than a quarter (23%) of White British respondents and 18% of those in the Other White ethnic groups. Around one-third of those from the Black, African, Caribbean or Black British ethnic group (35%) also reported this.

**Figure 1: People from the Indian ethnic group were more likely to experience an increased or persistent loss of sleep over worry than those from White British and Other White ethnic groups**

Age adjusted estimates of percentage of those aged 16 years and over reporting an increased or more than usual loss of sleep over worry by ethnic group, UK, 2019 and April 2020

**Notes:**

1. The outcome of increased or persistent loss of sleep over worry refers to the respondent reporting loss of sleep over worry more than usual in both 2019 and April 2020 or increasing from "no more than usual" to "more than usual" between the periods.

2. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

3. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) which should therefore be treated with caution.

4. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

Data download

# Self-reported mental health using the General Health Questionnaire (GHQ-12)

The General Health Questionnaire (GHQ-12) can be used to identify possible mental ill-health. Respondents answer a set of 12 questions on a four-point scale, which are then converted to a single score out of 12. A higher GHQ-12 score indicates poorer mental health. Out of the 12 questions from the General Health Questionnaire (GHQ-12), increased or persistent loss of sleep over worry (Figure 1) was the only question that showed any significant variation across ethnic groups, after adjusting for age, when comparing how responses changed between 2019 and April 2020.

Previous analysis of UK Household Longitudinal Study data showed that average GHQ-12 scores in 2017 and 2018 were largely similar between ethnic groups. Between 2019 and April 2020, all ethnic groups (excluding Black, African, Caribbean or Black British ethnic groups) experienced a significant average increase in GHQ-12 scores, indicating worsening mental health, after adjusting for age, sex, socio-economic classification (NS-SEC), change in help and support received since the start of the coronavirus pandemic, and whether they have a health condition (Figure 2).

Confidence intervals for the Black, African, Caribbean or Black British ethnic groups are too large to be able to determine the direction of impact on the associated GHQ-12 scores between 2019 and April 2020. However, it can be said that the change in mental ill-health for the Black, African, Caribbean or Black British ethnic group has not been as marked as for some other ethnic groups.

When comparing across the groups, respondents from the Indian ethnic group reported a greater average increase in GHQ-12 scores (1.7) than those from the White British ethnic group (0.8). Taken together with the findings on loss of sleep over worry for the Indian ethnic group, this suggests that their mental well-being may have been particularly challenged by the pandemic.

## Figure 2: Most ethnic groups experienced an increase in average GHQ-12 scores between 2019 and April 2020

Fully adjusted average change in GHQ-12 scores of those aged 16 years and over between 2019 and April 2020 by ethnic group, UK, 2019 and April 2020

**Notes:**

1. Factors controlled for in the fully adjusted analysis are age, sex, socio-economic classification (NS-SEC), change in help and support received since the start of the coronavirus pandemic and whether they have a health condition.

2. A positive increase in average GHQ-12 score indicates a worsening of mental health between the periods.

3. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

4. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

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## Loneliness

Those of White Irish ethnicity (28%) were more likely to report either continuing to feel lonely often or to experience an increase in feelings of loneliness between 2019 and April 2020 than people from White British (18%), Chinese and other Asian (10%) and Black, African, Caribbean or Black British (11%) ethnic groups after adjusting for age, sex, whether the respondent lives alone, the change in help and support received since the start of the coronavirus pandemic, and whether they have a health condition (Figure 3). Around a quarter of those from the Indian ethnic group (24%) also reported this.

**Figure 3: Almost 3 in 10 White Irish respondents reported an increase in loneliness or continuing to feel lonely often between 2019 and April 2020**

Fully adjusted estimates of increased or remaining lonely often by ethnic group, UK, 2019 to April 2020

**Notes:**

1. Factors controlled for in the fully adjusted analysis are age, sex, whether the respondent lived alone, change in help and support received since the start of the coronavirus pandemic and whether they have a health condition.

2. The outcome variable relates to those reporting feeling often lonely in both 2019 and April 2020 and those who experienced increased levels of loneliness from never to sometimes, and sometimes to often, between the periods.

3. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

4. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) which should therefore be treated with caution.

5. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

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# 4 . Financial resilience

Prior to the coronavirus (COVID-19) pandemic, data collected from the Wealth and Assets Survey (WAS) between April 2016 and March 2018 showed that in Great Britain around half of all households where the household head was employed had sufficient formal financial assets (such as savings) to cover a total loss of household employment income for a three-month period, and around three-quarters could cover a 20% loss. However, this varied by the ethnicity of the household head (household reference person, Figure 4).

In previous analysis we have shown that some households are less likely than others to have enough financial assets to cover a fall in employment income, such as those who rent their home, and single parents with dependent children. To account for these differences, we adjusted estimates of household financial resilience for these and other household characteristics (age, sex, education, socio-economic classification of the household head, household composition and housing tenure).

After controlling for these factors, households with heads of Black African or Other Black ethnicity were significantly less likely to have enough financial assets to cover a 20% loss of employment income (estimated percentage after adjustment: 64%) than those of all other ethnic groups, except for respondents from Black Caribbean (75%) and Chinese or Other Asian ethnic groups (80%).

Households with heads from the Other White ethnic group were more likely to cover such a loss (85%) than those from the White British group (80%), when controlling for variation in household characteristics (Figure 4).

**Figure 4: The Black African or Other Black ethnic group were less likely than most other ethnic groups to be able to cover a three-month drop of household employment income by 20% or 100%**

Estimated percentage of households with sufficient formal financial savings to cover a 20% or 100% reduction in household employment income for three months, by ethnic group adjusted for household characteristics, Great Britain, April 2016 to March 2018

**Notes:**

1. Factors controlled for in the fully adjusted analysis are age, sex, educational level, and socio-economic classification (NSSEC) of the household head, housing tenure and household composition.

2. Households were deemed to have sufficient assets to cover a reduction in employment income if formal financial assets are greater than the loss of employment income.

3. Household employment income includes any employee and self-employed income, for all adults in the household aged 16 years or over (excluding adults aged 16 to 18 years who are in full-time education).

4. Households where the head of the household is inactive or net regular household income (before housing costs) is less than or equal to zero have been excluded from this analysis.

5. "Any other ethnic groups" encompass ethnic groups that are not otherwise listed separately.

6. "White Irish" and "Gypsy or Irish Traveller" ethnicities are captured within the "White Other" ethnic group.

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When considering a total loss of income (100%) over three months, those of Black African or Other Black ethnicity were significantly less likely (27%) to have assets to cover the income drop than households with heads from the White British (52%), Other White (49%) and Indian (58%) ethnic groups. Households with heads from the Black Caribbean and Pakistani or Bangladeshi ethnic groups were also less likely to have the resources to cover such an income shock (32% and 35% respectively) compared with those from the White British and Indian ethnic groups (Figure 4).

# 5 . Work

Official estimates of employment are derived from the Labour Force Survey (LFS). However, the Understanding Society COVID-19 module included a number of questions relating to respondents' work situations, which are explored in this article.

One of the main impacts of the initial period of lockdown in April 2020 was in terms of the effect on those in paid work (which includes as an employee, self-employed or both), with businesses forced to close or limit their activities, and those workers who were able to advised to work from home. An exception to this is in the case of those identified as key workers who continued to leave the house for work. The impact of these changes on people in different ethnic groups is therefore affected by how many were in paid employment at the start, how many were key workers and how many were able to work from home.

Prior to the coronavirus (COVID-19) pandemic, the proportion of working-age adults (aged 16 to 64 years) reporting that they were in paid work in January and February 2020 was significantly lower for some ethnic groups than others, after adjusting for age (Figure 5). Those of Chinese or other Asian (62%), Pakistani or Bangladeshi (64%), Black, African, Caribbean or Black British (64%) and Indian (70%) ethnicities were significantly less likely to be in paid work than those of White British (80%) or Other White (86%) ethnicities.

These differences are to some extent driven by differences in the number of women in each of these groups in paid work. Less than half (46%) of women aged 16 to 64 years from the Pakistani or Bangladeshi ethnic groups, just over half of those of Chinese or other Asian (51%) and Black, African, Caribbean or Black British (55%) ethnicities, and 64% of women identifying as Indian reported being in paid work immediately before the pandemic. This is significantly less than working-age women from the White British (76%) and Other White (82%) groups.

**Figure 5: Fewer working age adults of Pakistani or Bangladeshi, Chinese or other Asian, Indian and Black, African, Caribbean or Black British ethnicity reported they were in paid work before the pandemic than White British or Other White ethnicities**

Age-adjusted estimates of percentage of those aged 16 to 64 years who reported being in paid work by ethnic group and sex, UK, January and February 2020

**Notes:**

1. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

2. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) which should therefore be treated with caution.

3. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

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After adjusting for age, among the respondents to this COVID-19 module, there was no evidence that those aged 16 to 64 years and in paid work in any one ethnic group were more likely to be employed as a key worker than those in other ethnic groups; however, those in the Other White ethnic group were significantly less likely to self-identify as a key worker than most other ethnic groups. It should be noted that the lack of significant differences between groups may in part be because of the limited sample sizes for some groups.

There were significant differences in the extent to which people from different ethnic groups reported working from home during lockdown. In April 2020, respondents in the Pakistani or Bangladeshi ethnic groups (35%) were less likely to report working from home for some of the time over the previous four weeks than several other ethnic groups. This included the White British group (47%), the Black, African, Caribbean or Black British (53%) group, the Other White group (56%) and the Indian ethnic group (57%) (Figure 6). These comparisons relate specifically to those who reported being in paid work both before and during lockdown.

## Figure 6: Fewer of those in paid work from Pakistani or Bangladeshi ethnic groups reported working at home at least sometimes in April 2020

Age-adjusted estimates of percentage of those in paid work aged 16 to 64 years who worked at home at least sometimes, UK, April 2020

**Notes:**

1. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

2. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) and should therefore be treated with caution.

3. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

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## Self-reported change in weekly hours worked

There were significant variations between ethnic groups in the proportions of those experiencing a reduction in hours worked before and during lockdown. Over half of those of Other White ethnicity (51%) in paid work reported a decrease in their weekly working hours worked from all jobs and self-employment activities between the first two months of 2020 and April 2020.

This made them significantly more likely to report reduced working hours than those from Indian (33%), Black, African, Caribbean or Black British (33%), and Pakistani or Bangladeshi (34%) ethnic groups after adjusting for age. Almost half (46%) of those of White British ethnicity in paid work (aged 16 to 64 years) also reported a decrease in their weekly hours worked over lockdown, significantly higher than those from Indian and Black, African, Caribbean or Black British ethnic groups (Figure 7).

## Figure 7: Over half of those of Other White ethnicity in paid work reported a decrease in their weekly hours worked between January and February 2020 and April 2020

Age-adjusted estimates of percentage of those in paid work (aged 16 to 64 years) who reported a decrease in their weekly hours worked between periods, UK, January and February 2020 and April 2020

**Notes:**

1. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

2. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) and should therefore be treated with caution.

3. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

## Self-reported change in take-home pay

Around a quarter of workers aged 16 to 64 years from Black, African, Caribbean or Black British, Pakistani or Bangladeshi and Indian ethnic groups reported a decrease in their take-home pay following lockdown, after adjusting for age, sex, socio-economic class, and highest qualification (Figure 8). The Other White ethnic group was significantly more likely to report a decrease in take-home pay (39%) than those from the White British (29%) and Indian (24%) ethnic groups. Latest data on ethnicity pay gaps are available.

**Figure 8: Those in paid work from the Other White ethnic group were more likely to report a decrease in take-home pay than those of White British and Indian ethnicities**

Fully adjusted percentage of those in paid work (aged 16 to 64 years) who reported a decrease in take-home pay (including all jobs and self-employment activities) between periods, UK, January and February 2020 and April 2020

**Notes:**

1. Factors controlled for in the fully adjusted analysis are age, sex, socio-economic class (NS-SEC), and highest qualification.

2. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

3. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) and should therefore be treated with caution.

4. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

Though the introduction of the furlough scheme is likely to have had a significant impact on the employment of people within the UK over the course of the pandemic, only 1,186 respondents reported that they had been furloughed in April 2020, and so we have not been able to report on this outcome by ethnic group because of small sample sizes.

# 6 . Living standards

## Current financial situation

In 2019, a significantly higher proportion (22%) of those from the Black, African, Caribbean or Black British ethnic groups reported they were finding it quite or very difficult to manage financially compared with those of Other White (4%), White British (6%), White Irish (6%), Mixed or Multiple (7%), Indian (9%), and Pakistani or Bangladeshi (10%) ethnicities.

The likelihood of Other White respondents finding it quite or very difficult financially was also significantly lower than it was for those in the Pakistani or Bangladeshi and Indian ethnic groups.

Between 2019 and April 2020, people from the Pakistani or Bangladeshi ethnic groups were more likely to report that their financial situation had worsened or remained difficult than those of White British ethnicity (26% and 18% respectively) (Figure 9).

**Figure 9: Those from the Pakistani or Bangladeshi ethnic group were more likely to report that their financial situation had worsened or remained negative than White British individuals**

Age-adjusted estimates of percentage of respondents who reported that their financial situation had worsened or remained negative between 2019 and April 2020, by ethnic group, UK, 2019 and April 2020

**Notes**

1. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

2. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) and should therefore be treated with caution.

3. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

Data download

In April 2020, a quarter of people (25%) from Black, African, Caribbean or Black British ethnic groups reported being behind on bills and 22% reported being less able to keep up with housing payments, with significantly higher proportions reporting struggling in these ways than respondents in other ethnic groups.

Over a quarter (27%) from this group also reported finding it very or quite difficult to get by in April 2020, making them significantly more likely to report this than those from the White Irish (6%), Other White (7%), Indian (8%), and Pakistani or Bangladeshi (13%) ethnic groups.

# Future financial situation

Prior to the coronavirus (COVID-19) pandemic, a significantly higher proportion of those from the White Irish (22%) ethnic group felt their financial situation would worsen over the coming year than those from the White British, Mixed or multiple ethnic groups, and Pakistani or Bangladeshi ethnic groups.

When asked about their perceptions of future finances, 38% of those from the Pakistani or Bangladeshi and 44% of those from Chinese or Other Asian ethnic groups either made a more pessimistic prediction in April 2020 than in 2019, or continued to predict that they would be worse off than they are now in both periods. This was significantly higher than those in the White British (28%) ethnic group (Figure 10).

**Figure 10: Those of Pakistani or Bangladeshi and Chinese or Other Asian ethnicities were more likely to have or continue to have negative perceptions of their future financial situation**

Age-adjusted estimates of percentage of respondents reporting that the perception of their future financial situation had worsened or remained negative by ethnic group, UK, 2019 and April 2020

**Notes:**

1. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

2. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

Data download

## Compensating for loss in earnings

The strategies used to cope with a loss of earnings will depend upon the resources available to a household to do so. Across all ethnic groups, the most commonly reported methods for dealing with a loss of earnings as a result of the pandemic were by reducing spending or using savings. Respondents were also able to select from a number of other options, however the sample sizes for these were too small to be disaggregated by ethnicity so have not been included.

For most ethnic groups, a reduction in spending was more commonly reported than use of savings, though the extent to which these were reported varied by ethnic group (Figure 11). Those of White British ethnicity were significantly less likely to report having reduced spending (27%) than those from the Other White (38%) ethnic groups, despite these groups having similar levels of financial resilience (Figure 4). Differences between these groups could be explained by the greater proportion of those in the Other White ethnic group reporting a reduction in their take-home pay when compared with those of White British ethnicity (Figure 8).

Those of White British and Black, African, Caribbean or Black British ethnicities were also significantly less likely to have used their savings to cover a loss in household earnings (9% and 8% respectively) than those of Pakistani or Bangladeshi (16%) and Indian (17%) ethnicities. This may reflect differing levels of savings available to households within these different ethnic groups seen in their differing levels of financial resilience (Figure 4).

### Figure 11: Respondents from Black, African, Caribbean or Black British ethnic groups were significantly less likely to use their savings to compensate for a loss in earnings than those of Pakistani or Bangladeshi and Indian ethnicity

Age-adjusted estimates of percentage of those aged 16 years and over by method of dealing with a loss in household earnings between January and February 2020, and April 2020, UK

**Notes:**

1. Respondents were asked to select from a number of options. Sample sizes for options other than "used savings" and "reduced spending" were too small to disaggregate by ethnicity so have not been included.

2. "Any other ethnic group" includes all ethnic groups that are not otherwise listed separately, other than the Gypsy or Irish Traveller group which have been excluded because of small sample sizes.

3. Bars marked with a * indicate estimates based on small sample sizes (fewer than 30 respondents) and should therefore be treated with caution. For all groups marked with a * other than "Any other ethnic group", the * only relates to sample sizes for "used savings".

4. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

# 7 . Coronavirus and the impacts on different ethnic groups data

Coronavirus and the impacts on different ethnic groups in the UK: 2020
Dataset | Released 14 December 2020
Estimates from the Understanding Society: COVID-19 Study, 2020, UK Household Longitudinal Study (UKHLS) and Wealth and Assets Survey (WAS) to explore the social impacts of the coronavirus (COVID-19) pandemic on people from different ethnic groups in the UK.

# 8 . Glossary

## Confidence intervals

A confidence interval gives an indication of the degree of uncertainty and precision of a sample estimate. The 95% confidence intervals are calculated so that if we repeated the study many times, 95% of the time the true unknown value would lie between the lower and upper confidence limits. A wider interval indicates more uncertainty in the estimate.

## Formal financial assets

Formal financial assets include current accounts in credit, savings accounts, ISAs, National Savings, UK and overseas shares, insurance products, fixed-term bonds, employee shares, unit and investment trusts, UK and overseas bonds and gilts, and any other formal financial assets.

## General Health Questionnaire (GHQ-12)

The General Health Questionnaire (GHQ-12) is a self-reported assessment of mental health and was modelled using the Understanding Society: COVID-19 Study, 2020. Respondents answer a total of 12 questions on anxiety and depression (including losing sleep over worry or feeling unhappy), social dysfunction (such as being able to enjoy and concentrate on activities, or the capability to make decisions and face up to problems), and loss of confidence and self-worth. Each question is answered on a 0 to 3 Likert scale and then dichotomised such that a response of 2 or 3 is taken as an affirmative answer. The resulting score ranges from 0 (highest reported mental health state) to 12 (lowest reported mental health state).

## Household reference person

Household reference person (HRP) is the person that is the sole or joint householder or is responsible for household affairs. Where there are joint householders, the HRP is the person with the highest income. In cases where income is the same for a joint householder, the eldest person is assigned as the HRP.

## Lockdown

Lockdown is the shutting down of all non-essential activities to slow the spread of the coronavirus (COVID-19). In the UK, this saw strict limits imposed on daily life, including:

- people being advised to only leave the house for essentials such as food, medicine, exercise or to care for a vulnerable person

- the closure of non-essential shops

- the banning of gatherings of more than two people

The UK lockdown was applied on 23 March 2020. This has formed the basis for each nation's stay-at-home guidance. Specific stay at home guidance for England, Scotland, Wales and Northern Ireland is available. During the period covered in this release, lockdown restrictions were consistent across the UK.

## Net regular household income (before housing costs)

Net regular household income (before housing costs) includes the sum of (net employment income (employee and self-employed)) benefits, net private pension income, net investment income, any other net regular income (including rental income, maintenance, alimony and separation payments, regular redundancy payments, royalties and educational grants), minus Council Tax (amount paid by households).

## Statistical significance

Where we have performed age-adjusted or additional adjustments to relationships between ethnicity and outcomes, we have used null hypothesis statistical testing to determine whether there were significant differences in outcomes between pairs of ethnic groups for each measure.

The significance testing produces p-values, which provide the probability of observing a difference at least as extreme as the one that was estimated from the sample if there truly is no difference between the groups in the population. We used the conventional threshold of 0.05 to indicate evidence of differences not compatible with chance.

# 9 . Data quality and sources

## Understanding Society: COVID-19 Study, 2020

This release predominantly uses data from Wave 1 (April 2020) of the Understanding Society: COVID-19 Study, 2020. Participants from the UK Household Longitudinal Study (UKHLS) aged 16 years and over were invited to take part, via web or telephone, in a new monthly survey measuring the changing impact of the coronavirus (COVID-19) pandemic on the welfare of UK individuals, families and wider communities.

The statistics in this article are based on the 17,761 participants who completed the web survey in the first wave. Individual-level responses were analysed for 13,388 adults (aged 16 years and over) after excluding those with a zero weight and cases where ethnicity was missing.

Wave 1 of the COVID-19 Study includes baseline responses from January and February 2020 for some topics; these have been used as a baseline comparison point of pre-COVID-19 levels with the COVID-19 period (April 2020). In cases without the baseline period, responses from Waves 10 and 11 of the UKHLS, which represented the year ending December 2019, have been used. Respondents were only included if they were present in both 2019 and Wave 1 of the COVID-19 study.

## Wealth and Assets Survey

The Wealth and Assets Survey (WAS) launched in 2006 and is a biennial longitudinal survey conducted by the Office for National Statistics (ONS). This survey measures the well-being of households and individuals in terms of their assets, savings and debt and planning for retirement. The survey also examines attitudes and attributes related to these. Classificatory variables (age, sex, employment status) are also collected.

Quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the Wealth and Assets Survey QMI.

This article reports analysis of financial resilience by ethnic group based on 18,034 households in Great Britain who responded to WAS between April 2016 and March 2018 (inclusive). The data used in this analysis were collected pre-coronavirus (COVID-19) but provide insight into groups that may be more likely to experience difficulties as a result of the economic climate brought on by the pandemic. The estimates are included in this article to provide a baseline of the financial resilience of different ethnic groups, as context for the changes analysed during the pandemic.

The estimates in this article are created by comparing household employment income against the value of a household's formal financial assets. Household employment income includes both employee and self-employed income, for all adults aged 16 years or over (excluding adults aged 16 to 18 years who are in full-time education).

Total monthly employment income was reduced by 20% or 100%. Households were then counted as having sufficient assets to cover this loss if the value of their formal financial assets exceeds the value of three times the reduction in monthly employment income. Households where the head of the household is inactive, (for example, unemployed or retired) or the total net regular household income (before housing costs) is less than or equal to zero have been excluded from this analysis.

## Measuring ethnicity

The ethnicity disaggregation used in this article has been chosen to provide the most granular breakdowns possible, while producing robust estimates based on sample sizes.

The nine ethnicities used in the Understanding Society: COVID-19 Study, 2020 analysis are:

- White British

- White Irish

- Other White

- Mixed or Multiple ethnic groups

- Indian

- Pakistani or Bangladeshi

- Chinese or any other Asian

- Black, African, Caribbean or Black British

- Any other ethnic group

In the Understanding Society: COVID-19 Study, 2020, Black Caribbean, Black African and other Black ethnic groups have been aggregated because of small sample sizes. Additionally, the Gypsy or Irish Traveller ethnic group has been excluded from this analysis because of a very small number of respondents from this category being captured within the sample.

The nine ethnicities used in the Wealth and Assets Survey (WAS) analysis are:

- White British

- Other White (including White Irish and Gypsy or Irish Traveller)

- Mixed or Multiple ethnic groups

- Indian

- Pakistani or Bangladeshi

- Chinese or any other Asian

- Black Caribbean

- Black African or other Black

- Any other ethnic group

In the Wealth and Assets Survey (WAS), White Irish and Gypsy or Irish Traveller ethnic groups are combined with the Other White ethnic group at collection, and so it has not been possible to disaggregate these groups. The ethnicity assigned to each household is that of the head of the household (referred to as the household representative person). The analysis does not account for people of different ethnic backgrounds who live in the same household.

# Uncertainty and quality

The statistics presented are estimates and, as with all estimates, there is a level of uncertainty associated with them. Given this, sample-based estimates will occasionally indicate a difference between population groups when there is in fact no systematic difference between them. Such findings are known as "false positives". If we were able to repeatedly draw different samples from the population, then, for a single comparison, we would expect 5% of findings with a p-value below a threshold of 0.05 to be false discoveries. However, if multiple comparisons are conducted, then the probability of making at least one false discovery will be greater than 5%.

Confidence intervals have been included alongside the estimates to give an indication of uncertainty. Wide confidence intervals, often associated with small sample sizes or large sample variance, indicate a wider range of values within which we would expect the true value to lie. However, statistical significance has been tested formally, so confidence intervals may overlap for estimates that are statistically significantly different.

# Strengths

An important strength of the analysis presented in the article is the adjustments that have been made for demographic characteristics, other than ethnicity, that are likely to be related to both ethnicity and outcomes. Adjusting for age has a large effect on some of the estimates presented in this analysis, particularly those relating to health and living standards, revealing that some of the differences observed between the ethnic groups before adjustment are associated with differences in the age profiles of the different populations. Other adjustments had varying effects on the outcomes; unadjusted and adjusted estimates are included in the accompanying dataset.

# Limitations

Although this analysis has adjusted for several factors, there are likely to be other characteristics correlated with both ethnicity and the outcomes of interest which were not available within the data source, such as cultural differences related to ethnic groups which may impact on behaviour. If we had been able to adjust for these additional factors, this may have altered the patterns seen here.

Levels of non-response varied across variables and sources, so decisions on how to deal with missingness were made on a case-by-case basis. Where rates of missingness were low, responses with missing cases were omitted from the analysis before the modelling stage. Missing rates for each modelled variable ranged from 1.4% for the change in GHQ-12 score to 3.6% for the change in loneliness models.

This method has the disadvantage that information will have been lost and bias may be introduced into adjusted estimates if the survey responses are not missing completely at random (that is, the probability of responding is correlated with other variables). However, given the low rates of missingness in these cases, we expect the size of any such bias to be small. In cases where variables had a higher rate of missingness, these responses were combined and included within the models as a "Missing/non-applicable" category. Future work could seek to investigate patterns of missingness and, if appropriate, assess the impact of performing imputation for missing data in future analysis using these data sources.

Like all surveys, the UK Household Longitudinal Study (UKHLS) and Wealth and Assets Survey (WAS) are susceptible to respondent error and bias. Variables related to health are self-reported rather than clinically measured. It is possible that under-reporting of these outcomes may be more prevalent among some groups than others, and in turn this would bias the adjusted estimates.

When interpreting the results of this analysis, it should be remembered that the adjusted estimates may be indicative (or otherwise) of a statistical association between outcomes and ethnicity, but do not imply a causal relationship between the two.

# Modelling

For continuous outcome variables, linear regression models were fitted. For discrete dependent variables that could be described by a "yes" or "no" outcome, binary logistic regression models were fitted. Some continuous variables were dichotomised where appropriate, as they did not meet the assumptions for linear regression.

There were two types of models fitted to the data with similar approaches. The first was to age adjust all estimates. This has the benefit of accounting for differences in age structures across ethnicities and ensures consistency of reporting, as age is a non-modifiable characteristic intrinsic to the individual. The other was to control for any available factors that related to both ethnicity and the outcome of interest that might mediate the relationship between the two. The dependent variables used in this analysis of the main outcomes are shown in Table 1.

Table 1: Dependent variables in models

| Variable | Type | Definition | Eligible sample | Source |
|---|---|---|---|---|
| Change in GHQ-12 score (explained below) | Continuous | Scale of -12 to 12 of change between 2019 and April 2020 | Valid responses in both periods | Understanding Society: COVID-19 Study, 2020 |
| Loneliness | Binary | Yes: Remaining often lonely between 2019 and April 2020 or increased levels of loneliness from never to sometimes, and sometimes to often, between the periods. No: Not often, stayed sometimes or never or decreased | Valid responses in both periods | Understanding Society: COVID-19 Study, 2020 |
| Decrease in take-home pay | Binary | Yes: Any decrease in take-home pay between January and February 2020 and April 2020 No: Take-home pay stayed the same or increased | Employees aged 16 to 64 years | Understanding Society: COVID-19 Study, 2020 |
| Ability to cover 20% or 100% loss of employment income | Binary | Yes: Formal financial assets exceed 20% or 100% of household employment income for a 3-month No: Formal financial assets do not exceed 20% or 100% of household employment income for a 3-month period | Households with an employed or self-employed household representative person and net regular household income (before housing costs) more than £0 | Wealth and Assets Survey |

Source: Understanding Society: Covid-19 Study, 2020 and Office for National Statistics: Wealth and Assets Survey (WAS)

For each dependent variable, causal diagrams were produced to identify the factors that could theoretically have a relationship with both ethnicity and the dependent variable. These informed which independent variables were used in the final models, in addition to their availability within the data sources (see Limitations) and the existence of a statistically significant relationship with the dependent variable. Variables that were highly collinear with ethnicity, such as religion were excluded from the analysis as it was not possible to separately estimate their associations with outcomes.

When modelling financial resilience, geographic region was not controlled for, because while an association between region and financial resilience may exist, it is unclear whether region determines financial resilience (here a function of income and financial assets) or financial resilience determines region. In the case of the latter, controlling for region would distort the model estimates. Variables that were highly associated with ethnicity such as religion, were removed from the analysis as their inclusion could be deterministic of the outcome. As discussed in Limitations, there are other factors that could be related to ethnicity and the outcome of interest that we have not been able to adjust for as they were not available within the data sources.

We then estimated ethnicity-specific adjusted means (continuous dependent variables) and percentages (binary dependent variables) for health, employment, financial resilience and living standards related relationships.

There were instances of changes to model inferences following adjustments. For example, there was a statistically significant difference in the percentage of households estimated to have enough formal financial assets to cover a 20% loss in household employment income between the Black African or Other Black ethnic group and the Chinese or Other Asian ethnic group before adjustment. However, after adjustment the percentage estimated for the former group was much greater and the difference between groups was no longer statistically significant (Figure 12).

This illustrates the importance of adjusting outcomes for potentially confounding factors when making comparisons between ethnic groups. Model estimates for all levels of adjustment are available in the accompanying dataset.

## Figure 12: Unadjusted and adjusted percentage of households with sufficient financial savings to cover a 20% reduction in household employment income for three months, by ethnicity

Great Britain, April 2016 to March 2018

**Notes:**

1. Factors controlled for in the fully adjusted analysis are age, sex, educational level, socio-economic classification (NS-SEC) of the household head, housing tenure and household composition.

2. "Any other ethnic group" encompass ethnic groups that are not otherwise listed separately.

3. "White Irish" and "Gypsy or Irish Traveller" ethnicities are captured within "White Other".

4. Because of the wide confidence intervals around some of these estimates, caution should be exercised when making comparisons between ethnic groups.

Data download

All models were estimated using the "survey" package in R version 3.6.1 and "surveylogistic" procedure in SAS, allowing the appropriate sampling weights to be incorporated and the complex design of the surveys to be accounted for. We then estimated ethnicity-specific adjusted means (continuous dependent variables) and probabilities (binary dependent variables) for each outcome using the "emmeans" package in R version 3.6.1. SAS's LSMEANS functionality was used to produce equivalent outputs for the financial resilience related outcomes.

# 10 . Related links

Why have Black and South Asian people been hit hardest by COVID-19?
Article | Released 14 December 2020
The coronavirus pandemic has hit some parts of society harder than others. When looking at social, economic and environmental factors there are differences, particularly for Black and South Asian ethnic groups

Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England, December 2020
Article | Released 14 December 2020
Data about the characteristics of people testing positive for COVID-19 from the COVID-19 Infection Survey. This survey is being delivered in partnership with the University of Oxford, the University of Manchester and Public Health England

Household wealth by ethnicity, Great Britain: April 2016 to March 2018
Article | Released 23 November 2020
Examining household wealth for different ethnic groups to better understand inequalities in Great Britain. Results from the Wealth and Assets Survey.

Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England and Wales: deaths occurring 2 March to 28 July 2020
Article | Released 16 October 2020
Updated estimates of mortality involving the coronavirus (COVID-19) by ethnic group and investigation of the explanatory power of hospital-based comorbidity on ethnic differences, building on previous models published by the Office for National Statistics.