

Article

Coronavirus and depression in adults, Great Britain: January to March 2021

Analysis of the proportion of the British adult population experiencing some form of depression in early 2021, by age, sex and other characteristics. Includes comparisons with 2020 and pre-pandemic estimates.

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1 . Main points

- Around 1 in 5 (21%) adults experienced some form of depression in early 2021 (27 January to 7 March); this is an increase since November 2020 (19%) and more than double that observed before the coronavirus (COVID-19) pandemic (10%).
- Around 1 in 3 (35%) adults who reported being unable to afford an unexpected expense of £850 experienced depressive symptoms in early 2021, compared with 1 in 5 (21%) adults before the pandemic; for adults who were able to afford this expense, rates increased from 5% to 13%.

Over the period 27 January to 7 March 2021:

- Younger adults and women were more likely to experience some form of depression, with over 4 in 10 (43%) women aged 16 to 29 years experiencing depressive symptoms, compared with 26% of men of the same age.
- Disabled (39%) and clinically extremely vulnerable (CEV) adults (31%) were more likely to experience some form of depression than non-disabled (13%) and non-CEV adults (20%).
- A higher proportion of adults renting their home experienced some form of depression (31%) when compared with adults who own their home outright (13%).
- Almost 3 in 10 (28%) adults living in the most deprived areas of England experienced depressive symptoms; this compares with just under 2 in 10 (17%) adults in the least deprived areas of England.

2 . Prevalence of depressive symptoms over time

Around one in five (21%) adults aged 16 years and over in Great Britain experienced some form of depression (indicated by moderate to severe depressive symptoms) in early 2021 (27 January to 7 March), an increase from 19% in November 2020. Rates in early 2021 were more than double those observed before the coronavirus (COVID-19) pandemic, where 10% of adults experienced some form of depression (Figure 1).

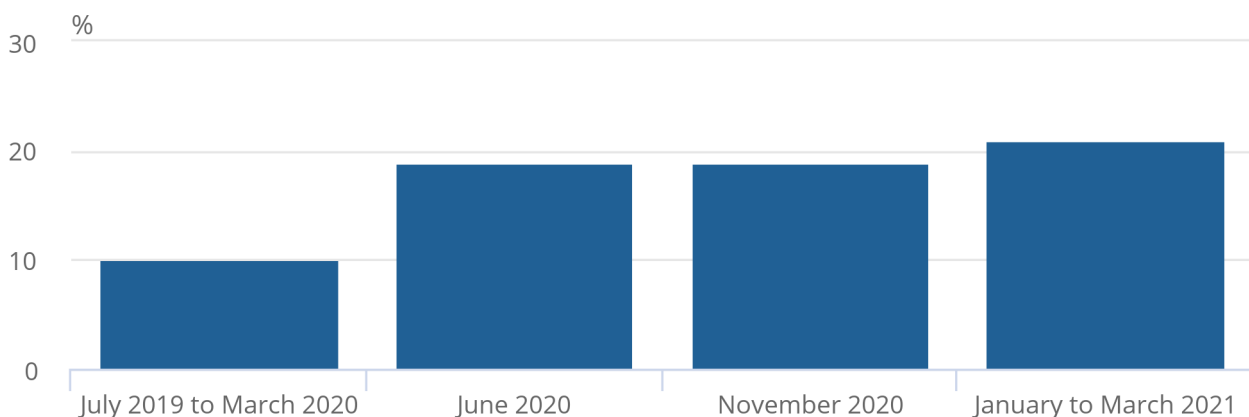
The presence of moderate to severe depressive symptoms was indicated by a score of 10 or more on the eight-item Patient Health Questionnaire (PHQ8). Further information can be found in the [Glossary](#). Previous estimates of adults experiencing depressive symptoms using the same measure were published in [August 2020](#) and [December 2020](#).

Figure 1: One in five adults experienced depressive symptoms in early 2021, more than double that seen before the pandemic

Percentage of adults with depressive symptoms, Great Britain, July 2019 to March 2021

Figure 1: One in five adults experienced depressive symptoms in early 2021, more than double that seen before the pandemic

Percentage of adults with depressive symptoms, Great Britain, July 2019 to March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.

Further analysis on depression during the pandemic is published in [Coronavirus and GP diagnosed depression in England: 2020](#). This found that the number of GP diagnosed depression cases during the pandemic (23 March to 31 August 2020) decreased when compared with the corresponding period in 2019, broadly in line with a fall in the overall number of GP diagnoses. However, in 2020, depression diagnoses as a percentage of all diagnoses were slightly higher than in the corresponding period in 2019.

Comparisons between population groups

Younger adults and people living with a child aged under 16 years had the largest increases in rates of depressive symptoms in early 2021, when compared with pre-pandemic levels (Figure 2).

For adults aged 16 to 39 years, rates in early 2021 were more than double (29%) when compared with before the pandemic (11%). In comparison, 10% of adults aged 70 years and over experienced some form of depression in early 2021, compared with 5% before the pandemic.

In early 2021, around one in three (35%) adults who reported being unable to afford an unexpected but necessary expense of £850 experienced some form of depression, compared with one in five (21%) adults before the pandemic. For adults who were able to afford this expense, 13% experienced depressive symptoms in early 2021, increasing from 5% before the pandemic.

Figure 2: In early 2021, rates of depressive symptoms for adults aged 16 to 39 years were more than double when compared with before the pandemic

Great Britain, July 2019 to March 2021

Notes:

1. Base population: All adults in Great Britain.
2. Afford an unexpected expense: Adults were asked if their household could afford an unexpected, but necessary, expense of £850. This gives us an indication of adults who may be struggling financially.
3. Child in household: Whether there is a child living in the household. A child is any person aged under 16 years.

Download the data

[.xlsx](#)

3 . Characteristics of adults with depressive symptoms in early 2021

This section explores the rates of depressive symptoms in early 2021 (27 January to 7 March) by more detailed characteristics. We have also carried out a logistic regression analysis to assess the likelihood of experiencing some form of depression after controlling for a range of characteristics such as age and sex.

Regression analysis allows us to identify someone with a particular characteristic reporting higher or lower odds of experiencing some form of depression when compared with a specified reference group, after taking other possible characteristics into account.

For example, if a particular group has an odds ratio (OR) of less than 1, they are less likely than the reference group to experience some form of depression. If the odds ratio is greater than 1, they are more likely to experience some form of depression than the reference group.

For more information on the characteristics included in the regression analysis, see [Section 4](#).

It is important to note that the associations between characteristics and the presence of moderate to severe depressive symptoms in this article may not necessarily reflect a causal relationship.

Age

In early 2021, adults aged 16 to 29 years were most likely to experience some form of depression (34%). People aged 70 years and over were least likely to experience some form of depression (10%) when compared with any other age group (Figure 3).

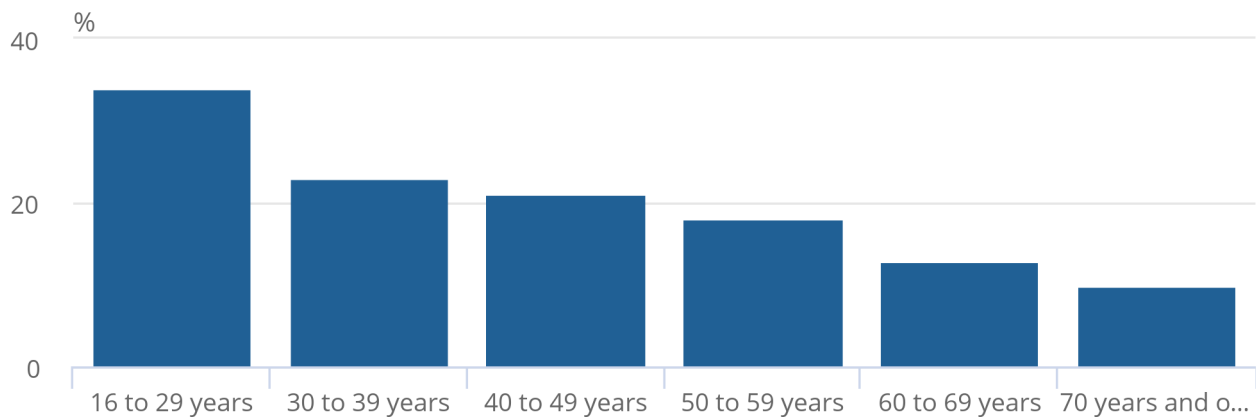
After controlling for sex and other characteristics, when compared with those aged 70 years and over, younger adults continued to be more likely to experience some form of depression, with adults aged 16 to 29 years having the highest odds (OR=4.99) of all age groups.

Figure 3: Adults aged 16 to 29 years were more likely to experience some form of depression than older adults

Percentage of adults with depressive symptoms by age, Great Britain, 27 January to 7 March 2021

Figure 3: Adults aged 16 to 29 years were more likely to experience some form of depression than older adults

Percentage of adults with depressive symptoms by age, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.

Age and sex

Women were more likely than men to experience some form of depression across all age groups, with over 4 in 10 (43%) women aged 16 to 29 years experiencing depressive symptoms compared with 26% of men of the same age (Figure 4).

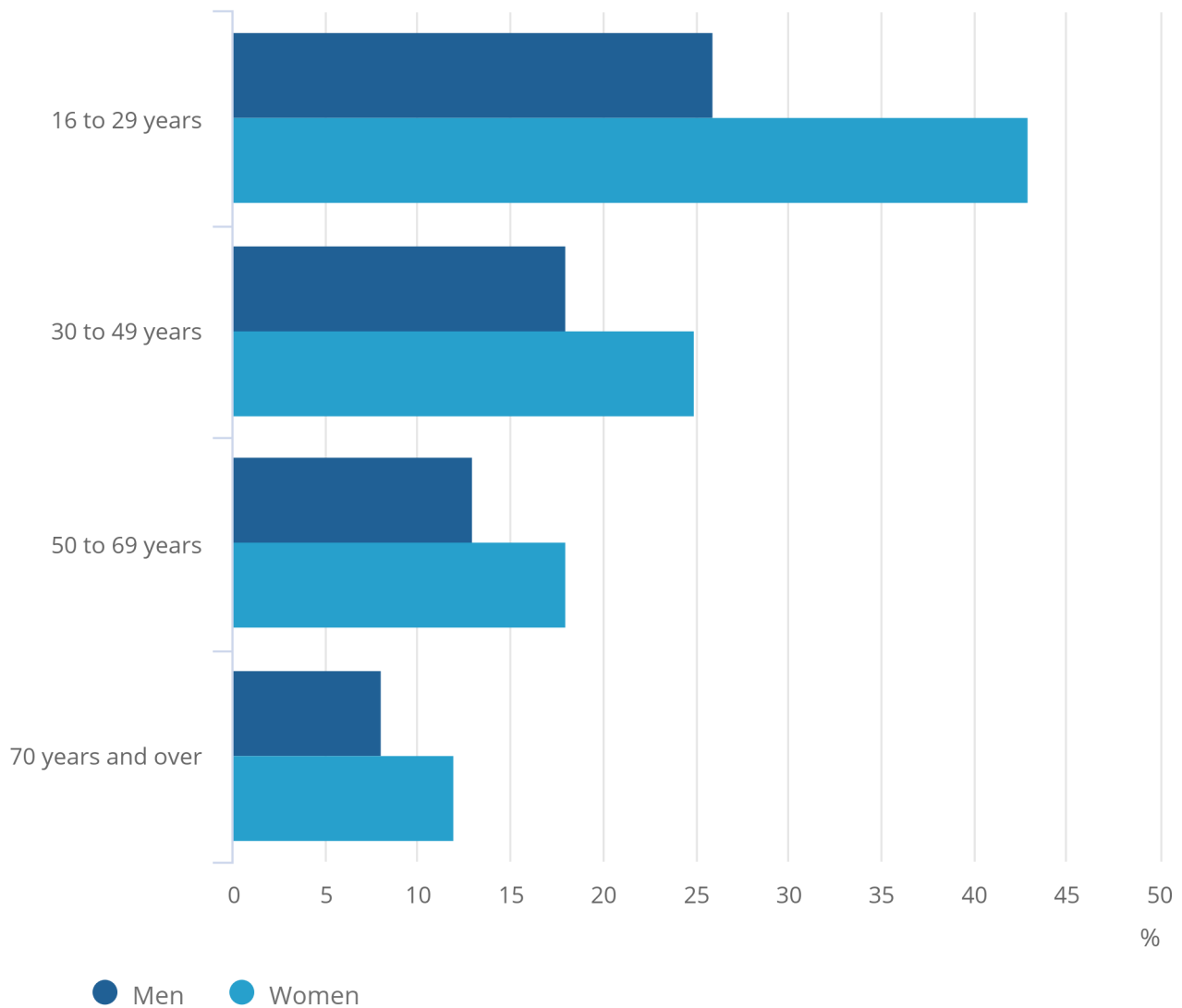
After controlling for age and other characteristics, women continued to be more likely than men to experience some form of depression.

Figure 4: Younger women were most likely to experience some form of depression

Percentage of adults with some form of depression by age and sex, Great Britain, 27 January to 7 March 2021

Figure 4: Younger women were most likely to experience some form of depression

Percentage of adults with some form of depression by age and sex, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.

Ethnicity

Adults of Mixed ethnicity or “any other ethnic group” appeared more likely to experience some form of depression (35% and 32% respectively) than White adults (20%).

However, after controlling for age, sex and other characteristics, no statistically significant differences were found between these ethnic minority groups and White adults. We also found Black or Black British adults had lower odds of experiencing some form of depression (OR=0.47) when compared with White adults.

Disabled or clinically extremely vulnerable people

In early 2021, around 4 in 10 (39%) disabled adults experienced some form of depression; this was three times greater than non-disabled adults (13%). Adults who identified as clinically extremely vulnerable (CEV) were more likely to experience some form of depression (31%) than non-CEV adults (20%) (Figure 5).

After controlling for age, sex and other characteristics, disabled and CEV adults continued to be more likely to experience some form of depression. Disabled adults had some of the highest odds of experiencing some form of depression (OR=4.74) when compared with non-disabled adults.

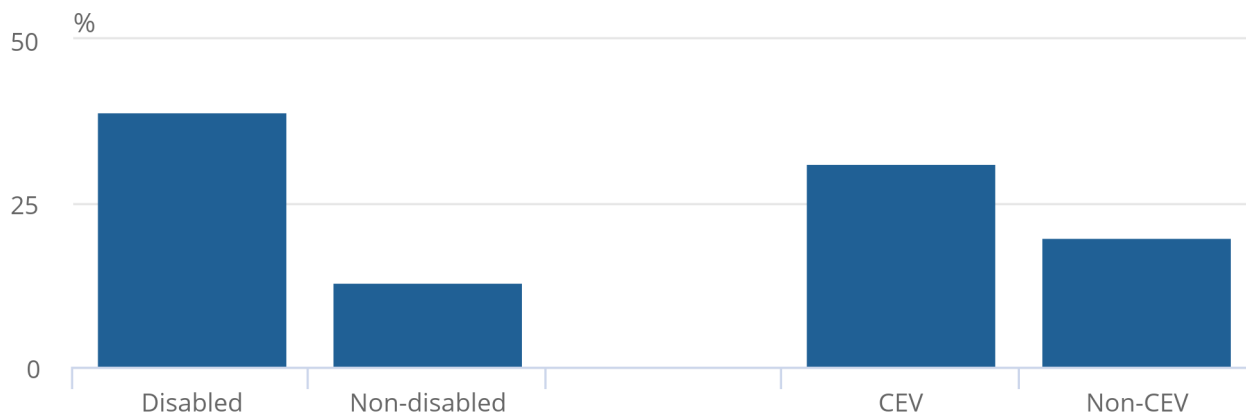
For definitions of disability status and CEV, see the [Glossary](#).

Figure 5: Disabled and CEV adults were more likely to experience some form of depression than non-disabled and non-CEV adults

Percentage of adults with depressive symptoms by disability and CEV status, Great Britain, 27 January to 7 March 2021

Figure 5: Disabled and CEV adults were more likely to experience some form of depression than non-disabled and non-CEV adults

Percentage of adults with depressive symptoms by disability and CEV status, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.
2. Clinically extremely vulnerable status is self-reported.

A [recent publication covering the period 22 March to 31 March 2021](#) found that 20% of all CEV adults in England felt their well-being and mental health had become “much worse” or “slightly worse” in the last month. Additionally, research into the [impact of the coronavirus on disabled adults in Great Britain](#) found that among people who said their well-being was affected, disabled adults were also more likely to say that the coronavirus was making their mental health worse than non-disabled adults.

Employment status

In early 2021, 40% of unemployed adults experienced some form of depression compared with 19% of employed or self-employed adults. Adults who were retired had the lowest rates of depressive symptoms across all employment groups (10%), while rates for those who were economically inactive for reasons other than retirement were similar to those observed for unemployed adults (Figure 6).

After controlling for age, sex and other characteristics, when compared with employed or self-employed adults, those unemployed or economically inactive for reasons other than being retired continued to be more likely to experience some form of depression.

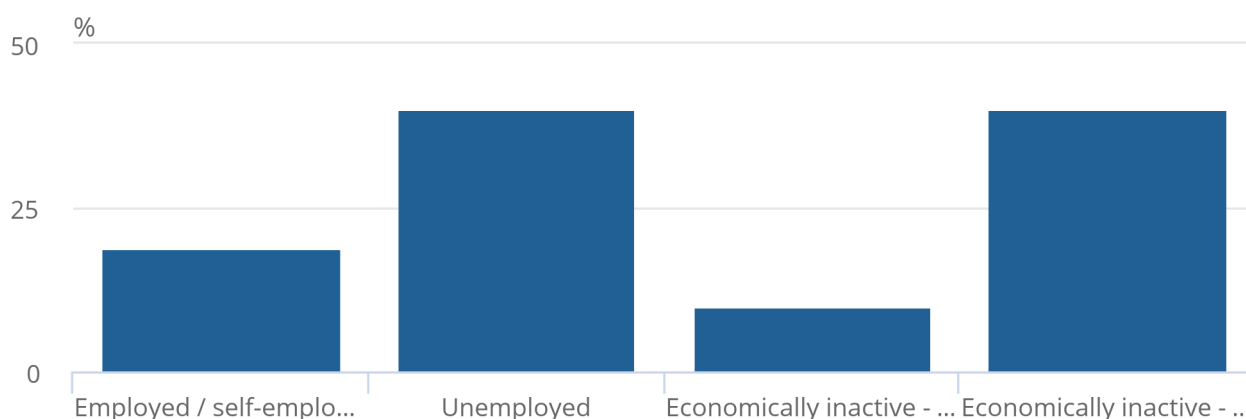
However, the odds of retired adults experiencing depressive symptoms were no longer significantly lower when compared with employed or self-employed adults.

Figure 6: Unemployed adults were more likely to experience depressive symptoms than those who were employed or self-employed

Percentage of adults with depressive symptoms by employment status, Great Britain, 27 January to 7 March 2021

Figure 6: Unemployed adults were more likely to experience depressive symptoms than those who were employed or self-employed

Percentage of adults with depressive symptoms by employment status, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.
2. “Unpaid family worker” has been removed from the chart because of a low sample size. Estimates for this group can be found in the [accompanying dataset](#).

Financial characteristics

Focusing on financial characteristics, around one in three (35%) adults who reported being unable to afford an unexpected but necessary expense of £850 experienced some form of depression, compared with 13% of adults who reported being able to afford this expense. After controlling for age, sex and other characteristics, this pattern continued.

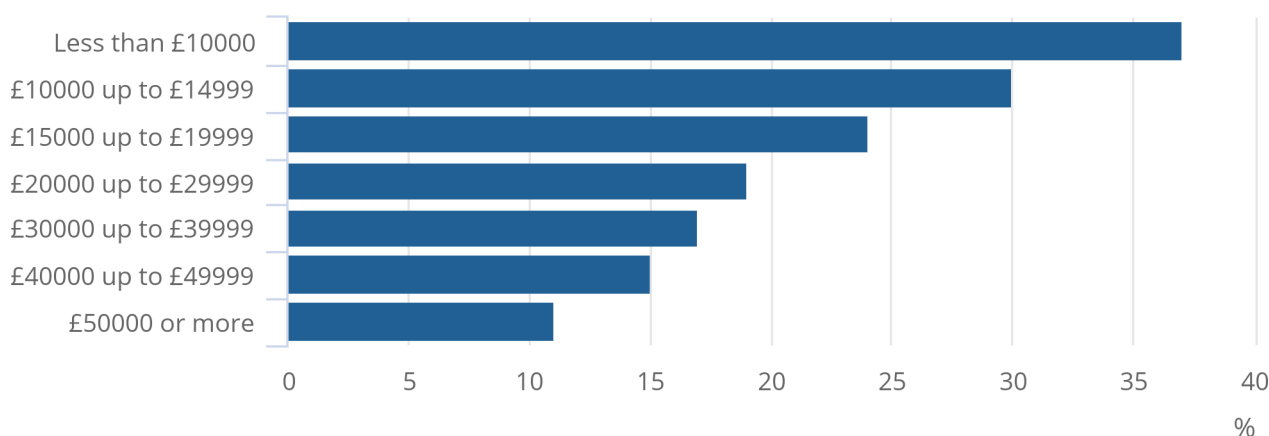
In addition, for working age adults aged 16 to 64 years, those with lower gross personal incomes of less than £10,000 a year had the highest rates of depressive symptoms (37%) when compared with all higher income groups (Figure 7).

Figure 7: Almost 4 in 10 adults earning less than £10,000 a year experienced depressive symptoms compared with around 1 in 10 earning £50,000 or more

Percentage of working age adults with depressive symptoms by gross personal income, Great Britain, 27 January to 7 March 2021

Figure 7: Almost 4 in 10 adults earning less than £10,000 a year experienced depressive symptoms compared with around 1 in 10 earning £50,000 or more

Percentage of working age adults with depressive symptoms by gross personal income, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: Working age adults, aged 16 to 64 years, in Great Britain.

Highest education level

When considering highest education level, adults educated “below degree level” had higher rates of depressive symptoms in early 2021 (23%) when compared with those with no qualifications (19%), a degree or equivalent (18%), or “other qualifications” (16%).

After controlling for age, sex and other characteristics, no association was found between highest education level and the presence of moderate to severe depressive symptoms.

For a definition of highest education level, see the [Glossary](#).

Household size

In early 2021, one in four (25%) adults residing in single-person households experienced some form of depression, compared with one in five (20%) adults living in multi-person households. After controlling for age, sex and other characteristics, adults in single-person households continued to be more likely to experience depressive symptoms than those living in multi-person households.

For adults living with at least one child aged under 16 years, rates of depressive symptoms were higher (23%) when compared with those who do not live with a child aged under 16 years (20%). However, after controlling for age, sex and other characteristics, no association was found between the presence of depressive symptoms and a child in the household.

Housing tenure

When looking at housing tenure, adults renting their home had the highest proportion of depressive symptoms (31%) when compared with all other tenure groups, while adults who reported owning their home outright had the lowest proportion, at 13% (Figure 8).

After controlling for age, sex and other characteristics, some association was found between housing tenure and the presence of depressive symptoms, with adults renting their home continuing to be more likely to experience some form of depression than those who own their home outright.

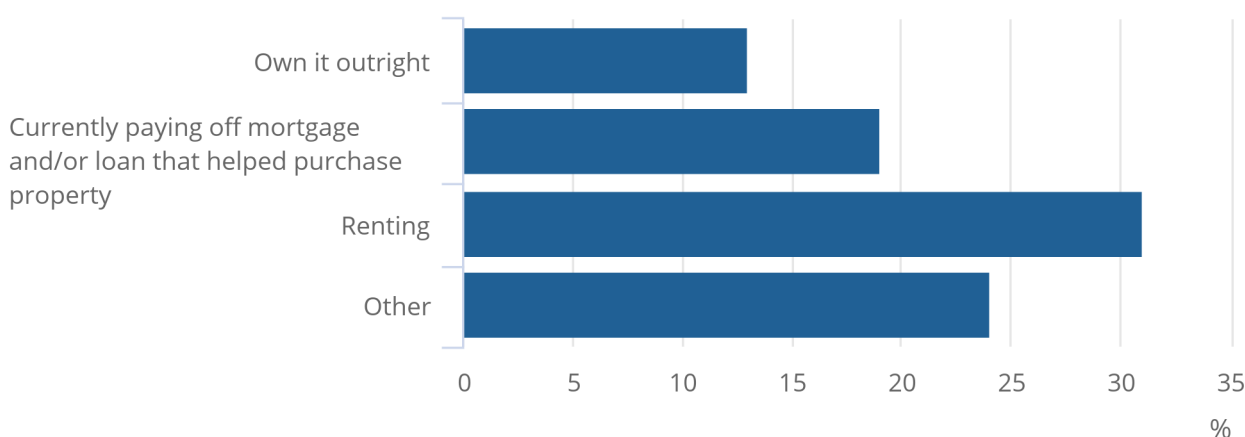
However, we also found that when compared with those owning their home outright, adults currently paying off a mortgage had higher odds of experiencing some form of depression, while no significant differences were found for those in the "other" group (paying part-rent and part-mortgage for their home and those living rent-free or squatting).

Figure 8: Adults renting their home were more likely to experience some form of depression than adults in other tenure groups

Percentage of adults with some form of depression by tenure status, Great Britain, 27 January to 7 March 2021

Figure 8: Adults renting their home were more likely to experience some form of depression than adults in other tenure groups

Percentage of adults with some form of depression by tenure status, Great Britain, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in Great Britain.
2. "Other" includes part rent, part mortgage (shared ownership), living rent-free, or squatting.

Area deprivation

When considering deprivation levels in England, adults living in the most deprived areas were more likely to experience some form of depression in early 2021 (28%) than adults living in other areas. For adults living in the least deprived areas of England, 17% experienced some form of depression (Figure 9).

These findings are in line with those in the [Coronavirus and GP diagnosed depression in England: 2020](#) publication, which found that the most deprived areas of England had a higher proportion of depression diagnoses out of all GP diagnoses than the least deprived areas.

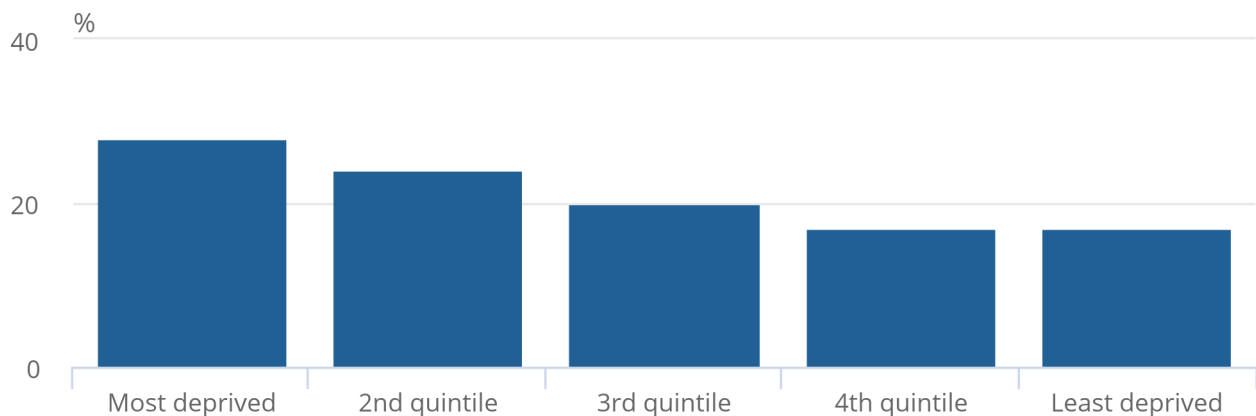
For a definition of area deprivation, see the [Glossary](#).

Figure 9: Adults in the most deprived areas of England were more likely to experience depressive symptoms than adults in other areas

Percentage of adults with depressive symptoms by area deprivation, England, 27 January to 7 March 2021

Figure 9: Adults in the most deprived areas of England were more likely to experience depressive symptoms than adults in other areas

Percentage of adults with depressive symptoms by area deprivation, England, 27 January to 7 March 2021



Source: Office for National Statistics – Opinions and Lifestyle Survey

Notes:

1. Base population: All adults in England.

Region

Adults living in Yorkshire and The Humber, and London were more likely to experience some form of depression (both 22%) than those living in the South East (18%). However, no further significant differences were found across other regions in England. Estimates for all regions can be found in the [accompanying dataset](#).

4 . Information on regression models

We carried out a logistic regression analysis to identify the characteristics associated with some form of depression, indicated by moderate to severe depressive symptoms, over the period 27 January to 7 March 2021.

The analysis from the regression model presented in this report identifies differences in moderate to severe depressive symptoms (dependent variable) within groups of the population, while controlling for the following characteristics (independent variables):

- age group
- sex
- ethnicity
- household size
- presence of child under 16 years in the household
- disability
- clinically extremely vulnerable (CEV) status
- ability to afford an unexpected expense
- employment status
- highest education level
- housing tenure

There may be additional characteristics associated with some form of depression that we have not considered in this analysis.

Regression models

Three logistic regression models were produced to explain the relationships between the presence of moderate to severe depressive symptoms and a range of characteristics. These were:

- unadjusted: these models show the relationship between the dependent variable, the presence of moderate to severe depressive symptoms, and an independent variable of interest (characteristic)
- age and sex adjusted: these models looked at the same dependent and independent variables of interest while also controlling for age and sex
- fully adjusted: this model looked at the same dependent variable and 11 independent variables (characteristics) of interest while controlling for all variables

The results for all three regression models can be found in the [accompanying dataset](#).

Selection of independent variables

The selection of independent variables included in the fully adjusted regression model were based on:

- user need and relevance: based on evaluation of [previous analysis](#) and discussions with users
- data quality: selecting variables with accurate measurement and sufficient sample size
- assessment of suitability: excluding variables with multicollinearity (where two independent variables are highly correlated with each other)

Missing values were excluded from the regression analysis where a response was not provided for a question or variable included in the model. As a result, 25,823 adults were included in the regression model analysis. A full breakdown of sample sizes and population estimates for each of the characteristics included in the fully adjusted regression model are available in the [accompanying dataset](#).

5 . Coronavirus and depression data

[Coronavirus and depression in adults, Great Britain: January to March 2021](#)

Dataset | Released 5 May 2021

Estimates of depressive symptoms with breakdowns by different population groups, with comparisons to earlier periods throughout and before the pandemic. Analysis based on the Opinions and Lifestyle Survey.

6 . Glossary

Area deprivation, England

Area deprivation is measured using the [Index of Multiple Deprivation \(IMD\)](#). This is the official measure of relative deprivation for small areas in England. The IMD ranks every small area in England from 1 (most deprived area) to 32,844 (least deprived area). We have grouped areas into five groups (quintiles), ranging from most deprived to least deprived areas.

Clinically extremely vulnerable

Clinically extremely vulnerable (CEV) status is self-reported. The CEV group in this analysis includes all adults who identified as being clinically extremely vulnerable. From 3 to 7 March 2021, the CEV question wording changed to explicitly define CEV as those identifying as “high risk”.

Further information can be found on the [NHS website](#).

Depressive symptoms

Respondents were asked the following questions from the eight-item [Patient Health Questionnaire \(PHQ-8\)](#):

- a. Over the last two weeks, how often have you been bothered by having little interest or pleasure in doing things?
- b. Over the last two weeks, how often have you been bothered by feeling down, depressed or hopeless?
- c. Over the last two weeks, how often have you been bothered by having trouble falling or staying asleep, or sleeping too much?
- d. Over the last two weeks, how often have you been bothered by feeling tired or having little energy?
- e. Over the last two weeks, how often have you been bothered by having a poor appetite or overeating?
- f. Over the last two weeks, how often have you been bothered by feeling negative about yourself or that you are a failure or have let yourself or your family down?
- g. Over the last two weeks, how often have you been bothered by having trouble concentrating on things, such as reading the newspaper or watching television?
- h. Over the last two weeks, how often have you been bothered by moving or speaking so slowly that other people could have noticed; or being so fidgety or restless that you have been moving around a lot more than usual?

These questions had four response options ranging from 0 (Not at all) to 3 (Nearly every day). A “depression score” was then derived by summing all responses chosen, resulting in a score ranging from 0 to 24. The higher the score, the greater the severity of depressive symptoms.

A person's PHQ-8 score sits in one of two categories (or thresholds):

- no or mild symptoms - Refers to a depression (PHQ-8) score of between 0 and 9 (inclusive)
- moderate to severe symptoms – this refers to a depression (PHQ-8) score of between 10 and 24 (inclusive)

Disability status

To define disability in this publication, we refer to the [Government Statistical Service \(GSS\) harmonised "core" definition](#): this identifies "disabled" as a person who has 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 harmonised questions are asked of the respondent in the survey, meaning that disability status is self-reported.

Ethnicity

The ethnicity disaggregation used has been chosen to provide the most granular breakdown possible, while producing robust estimates based on sample sizes, in line with the [GSS Ethnicity Harmonised standard](#).

Highest education level

Highest education level is derived based on the highest qualification reported by the respondent. “Below degree level” includes higher educational qualifications below degree level, A-Levels or Highers, ONC or National Level BTEC, O-Level or GCSE equivalent (Grade A to C), CSE equivalent, GCSE (Grade D to G) or CSE (Grade 2 to 5) or Standard Grade (level 4 to 6).

“Other qualifications” represent all other qualifications not listed, excluding degree level and equivalent.

7 . Data sources and quality

Background information on the Opinions and Lifestyle Survey (OPN) can be found in the [Opinions and Lifestyle Survey QMI](#).

Sampling

The analysis throughout this report is based on adults aged 16 years and over in Great Britain with a valid depression score. The latest analysis in this report is based on 25,935 adults from a pooled dataset comprising six waves of data collection, covering the following periods: 27 to 31 January, 3 to 7 February, 10 to 14 February, 17 to 21 February, 24 to 28 February and 3 to 7 March 2021. Pooling six waves of data together increases sample sizes, allowing us to explore depressive symptoms for different groups of the population.

Earlier periods referenced in [Section 2](#) cover the following periods: July 2019 to March 2020, 4 to 14 June 2020 and 11 to 29 November 2020.

Changes in estimates over time could be attributed to seasonality effects, however, seasonality effects have not been adjusted for in this analysis.

Further information on the survey design and quality can be found in the [Opinions and Lifestyle Survey QMI](#).

Weighting

Survey weights were applied to make estimates representative of the population.

Weights were first adjusted for non-response and attrition. Subsequently, the weights were calibrated to satisfy population distributions considering the following factors: sex by age, region, tenure, highest qualification and employment status. For age, sex and region, population totals based on projections of mid-year population estimates for February 2021 were used. The resulting weighted sample is therefore representative of the Great Britain adult population by a number of socio-demographic factors and geography.

Statistical significance

This report presents a summary of results, with further data including confidence intervals for the estimates contained in the associated datasets. Where comparisons between groups are presented, 95% confidence intervals should be used to assess the statistical significance of the change. In some cases, additional statistical hypothesis testing was performed to identify differences between groups.

For the regression analysis, characteristics were found to be significant based on the p-value associated (Wald Chi-Squared Test) with each characteristic. The odds ratios were then assessed alongside a confidence interval around each category of interest.

Quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Opinions and Lifestyle Survey QMI](#).

8 . Related links

[Coronavirus and the social impacts on Great Britain](#)

Bulletin | Released 11 December 2020

Indicators from the Opinions and Lifestyle Survey covering the period 2 to 6 December 2020 to understand the impact of the coronavirus (COVID-19) pandemic on people, households and communities in Great Britain. Also explores characteristics of adults experiencing some form of depression or anxiety between 11 and 29 November 2020.

[Coronavirus and GP diagnosed depression in England](#)

Article | Released 5 May 2021

Uses data from General Practice Extraction Service (GPES) Data for pandemic planning and research to explore trends in GP diagnosed depression in the adult population in England between 23 March and 31 August 2020, compared to pre-pandemic levels (23 March to 31 August of years 2017 to 2019). It provides breakdowns by socio-demographic characteristics.

[Coronavirus and the social impacts on Great Britain](#)

Bulletin | Released 30 April 2021

Indicators from the Opinions and Lifestyle Survey covering the period 21 to 25 April 2021 to understand the impact of the coronavirus (COVID-19) pandemic on people, households, and communities in Great Britain.