Statistical bulletin

Benefit recipients during the coronavirus (COVID-19) pandemic, England: November 2019 to March 2021

Age-standardised percentages of people who received a social security benefit by health conditions and sociodemographic characteristics, using linked 2011 Census, primary care and benefits data. Experimental Statistics.

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1 . Main points

- There was an increase in the age-standardised percentage of working-age people who received a social security benefit across most groups in England from March 2020, following the onset of the coronavirus (COVID-19) pandemic; this largely persisted for most groups during the first year of the coronavirus pandemic to March 2021.

- Trends in benefit recipients during the first year of the coronavirus pandemic for people with specific long-term health conditions were broadly similar to trends for people without these conditions, with the percentage who received a benefit increasing at the onset of the pandemic before levelling off.

- Among people with autism or a learning disability, the percentage of people who received a benefit was largely unchanged following the onset of the coronavirus pandemic, whereas the percentage increased markedly for people without these conditions.

- While the age-standardised percentage of people who received a benefit increased among all age groups at the onset of the coronavirus pandemic, this increase was notably larger for younger age groups, particularly those aged 16 to 24 years or aged 25 to 34 years.

- The age-standardised percentage of people who received a benefit increased more, in absolute terms, during the coronavirus pandemic for ethnic groups that had higher percentages of benefit recipients before the start of the pandemic, namely those in the Bangladeshi, Black Caribbean and Pakistani groups; therefore, the ethnic differences in benefit recipients that existed before the start of the coronavirus pandemic became wider during the pandemic.

- The age-standardised percentage of people who received a benefit before the start of the coronavirus pandemic was higher among those living in more deprived areas than less deprived areas, and the percentage also increased by a greater amount, in absolute terms, during the pandemic for people living in more deprived areas; therefore, the deprivation differences in benefit recipients that existed before the start of the pandemic became wider during the pandemic.

These are Experimental Statistics produced from a proof-of-concept analysis using new data linkages that are continuing to be developed. The coverage of these statistics is incomplete with regard to the population, time period and benefit types included, and may therefore have limited use for decision-making. The Department for Work and Pensions (DWP) produces National and Official benefits statistics.

2 . Trends in benefit recipients by long-term health conditions

This analysis is part of a wider programme of work being undertaken by the Office for National Statistics (ONS) in collaboration with the Department of Health and Social Care (DHSC) and the Department for Work and Pensions (DWP) Joint Work and Health Directorate. We aim to understand how the coronavirus (COVID-19) pandemic has affected people's health, their ability to work, and the social security benefits they received. For further information, see our [Using the power of linked data to understand factors preventing people from working blog](#).

We describe trends in the age-standardised percentage (see [Section 5: Glossary](#)) of working-age people (aged 16 to 64 years) in England who received a social security benefit during the four months preceding the coronavirus pandemic (November 2019 to February 2020), and over the first year of the pandemic (March 2020 to March 2021). We also compare people with and without pre-existing long-term health conditions. For [confidence intervals](#) for all estimates, see our [accompanying dataset](#).

There was an increase in the age-standardised percentage of working-age people who received a benefit across most groups from March 2020, following the onset of the coronavirus pandemic. This may have been partly driven by the introduction of national social restrictions in March 2020 aimed at reducing the spread of COVID-19 (often referred to as "lockdown" measures). It should be noted that changes were made to the benefits system, including easing of assessments, during the coronavirus pandemic. In addition, the Universal Credit standard allowance increased during the pandemic, which meant someone would need to earn more than previously to no longer receive benefits and increased the eligibility to a larger number of people in work.

Of the long-term health conditions included in this analysis, the age-standardised percentage of people who received a benefit in November 2019 (pre-coronavirus pandemic) was highest for people with a pre-existing learning disability (94.4%) followed by autism (72.3%). This is compared with 15.4% and 15.5%, respectively, for people in the general working-age population without each of these conditions before the start of the study period (Figure 1, top panel).

However, between November 2019 and March 2021 (approximately one year following the onset of the coronavirus pandemic), the age-standardised percentage of people who received a benefit increased by a greater amount among people without a pre-existing learning disability or autism (4.6 and 4.5 percentage points, respectively). This is compared with 0.1 and 1.8 percentage points, respectively, among people who had these conditions (Figure 1, bottom panel).

For the other health conditions included in the analysis, the change in the age-standardised percentage was broadly similar between people with and without these conditions before the start of the study period.

From this descriptive analysis, we cannot say whether the observed trends in benefit recipients were necessarily caused by the COVID-19 pandemic, and we do not know what the trends might have looked like had the pandemic not happened.

Long-term health conditions were identified from data over the nine years preceding the study period. Therefore, for this analysis, health conditions are considered pre-existing at the start of November 2019, and anyone who was first diagnosed during the study period would be classified as not having a long-term health condition.

Figure 1: The percentage of people who received a benefit in November 2019 was higher among people with a pre-existing learning disability or autism than those without these conditions, but following the onset of the coronavirus (COVID-19) pandemic this increased by a smaller amount for people with these conditions

Age-standardised percentage of working-age people who received a benefit by specified health condition status in November 2019 (top panel), and the change in the age-standardised percentage between November 2019 and March 2021 (bottom panel), England

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

2. People were identified as having these health conditions based on the presence of relevant codes in their primary care records from 1 January 2011 to 31 October 2019 (the day before the start of the study period).

The age-standardised percentage of people who received a benefit was higher among those with a pre-existing long-term musculoskeletal (MSK), cardiovascular or respiratory health condition than those without these conditions before the start of the study period (Figure 2). In November 2019, before the start of the coronavirus pandemic:

- 51.4% of people with chronic obstructive pulmonary disease (COPD) received a benefit compared with 15.4% of those without

- 35.8% of people with an MSK condition received a benefit compared with 15.6% of those without

- 35.1% of people with cardiovascular conditions received a benefit compared with 15.4% of those without

- 22.9% of people with asthma received a benefit compared with 15.2% of those without

The increase in the age-standardised percentage of people who received a benefit during the coronavirus pandemic was broadly similar among those with and without pre-existing long-term musculoskeletal, cardiovascular or respiratory health conditions. Over the first three months of the pandemic, from March to June 2020, the age-standardised percentage of people who received a benefit increased by:

- 4.2 percentage points for those with COPD, and 4.3 for those without

- 3.4 percentage points for those with an MSK condition, and by 4.3 for those without

- 4.4 percentage points for those with cardiovascular conditions, and by 4.3 for those without

- 4.3 percentage points for both those with and without asthma

Figure 2: The trend in benefit recipients for people with and without specific pre-existing long-term health conditions was broadly similar during the first year of the coronavirus (COVID-19) pandemic

Age-standardised percentage of working-age people who received a benefit by specified health condition status (musculoskeletal conditions, cardiovascular disease, asthma and chronic obstructive pulmonary disease), November 2019 to March 2021, England

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

2. People were identified as having these health conditions based on the presence of relevant codes in their primary care records from 1 January 2011 to 31 October 2019 (the day before the start of the study period).

Conversely, among people with pre-existing autism or a learning disability, the age-standardised percentage of people who received a benefit was largely unchanged following the onset of the coronavirus pandemic (Figure 3). This is possibly because of the high percentage of people in these groups who already received a benefit prior to the pandemic (72.3% for autism and 94.4% for learning disability in November 2019).

Figure 3: There was little change in benefit recipients for people with pre-existing autism or a learning disability following the onset of the coronavirus (COVID-19) pandemic

Age-standardised percentage of people who received a benefit by specified health condition status (autism and learning disability), November 2019 to March 2021, England

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

2. People were identified as having these health conditions based on the presence of relevant codes in their primary care records from 1 January 2011 to 31 October 2019 (the day before the start of the study period).

Age-standardised percentages of people who received a benefit by self-reported health status and disability status from 2011 Census can be found in our accompanying dataset.

3 . Trends in benefit recipients by sociodemographic characteristics

This analysis describes trends in the percentage of working-age people (aged 16 to 64 years) in England who received a social security benefit during the four months preceding the coronavirus (COVID-19) pandemic (November 2019 to February 2020), and over the first year of the pandemic (March 2020 to March 2021) across different sociodemographic groups.
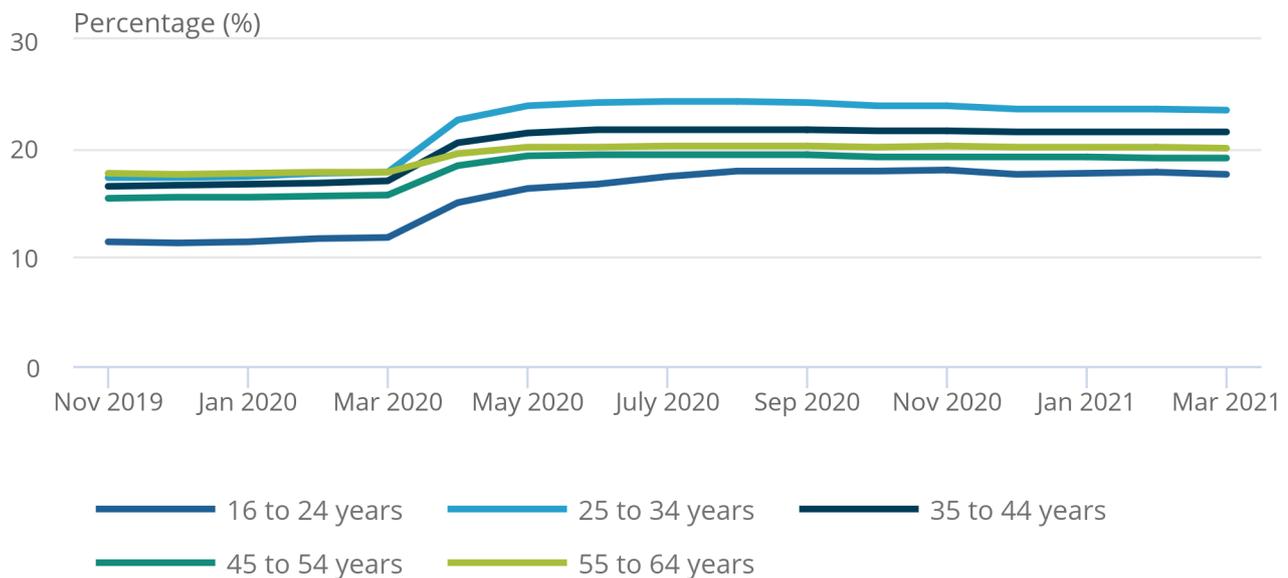
While the percentage of people who received a benefit increased for all age groups over the first three months of the coronavirus pandemic (March 2020 to June 2020), this increase was notably larger for younger ages groups. In particular, for those aged 16 to 24 years we saw an increase of 4.9 percentage points, and for those aged 25 to 34 years we saw an increase of 6.3 percentage points (Figure 4). The oldest age group (aged 55 to 64 years) had the highest percentage of people who received a benefit at the beginning of the study period (November 2019) at 17.7%, but from April 2020 onwards had the third highest percentage out of the five age groups.

Figure 4: Younger age groups saw the largest increase in the percentage of people who received a benefit over the first three months of the coronavirus (COVID-19) pandemic

Percentage of people who received a benefit by age group, November 2019 to March 2021, England

Figure 4: Younger age groups saw the largest increase in the percentage of people who received a benefit over the first three months of the coronavirus (COVID-19) pandemic

Percentage of people who received a benefit by age group, November 2019 to March 2021, England

Source: 2011 Census and death registrations from the Office for National Statistics, General Practice Extraction Service Data for Pandemic Planning and Research from NHS England, and the Benefits and Income Datasets from the Department for Work and Pensions

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

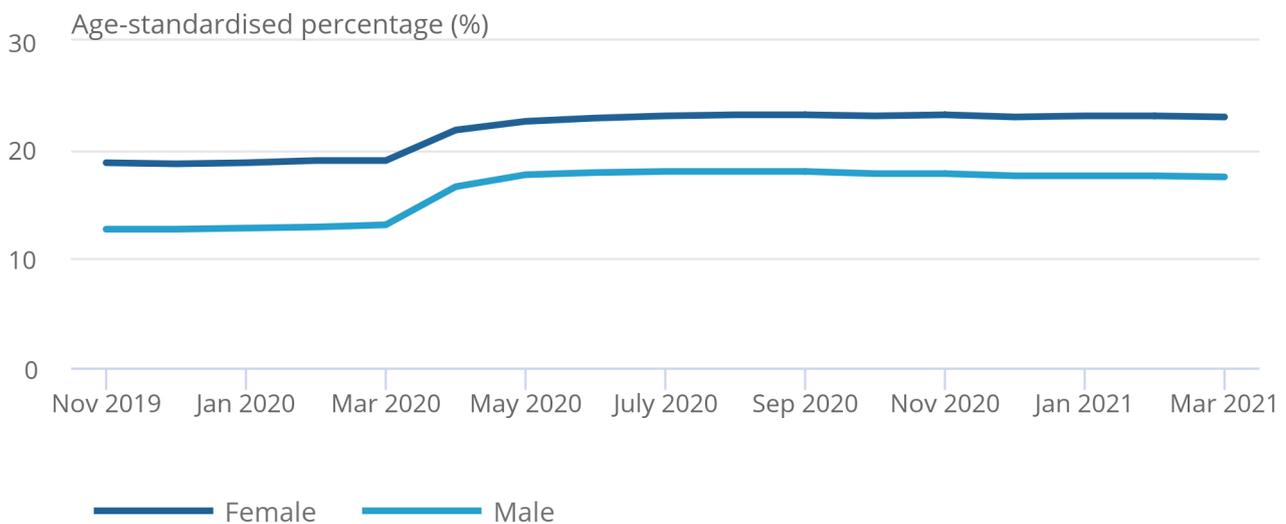2. The breakdown by age group is based on age in each month of the study period.

While the age-standardised percentage of people who received a benefit in November 2019 was greater for females (18.8%) than males (12.7%), the percentage increased by a greater amount during the early months of the coronavirus pandemic (March 2020 to June 2020) for males (4.9 percentage points) than females (3.8 percentage points) (Figure 5). The percentage for males began to decrease from August 2020 to March 2021, while this was not the case for females.

Figure 5: The percentage of people who received a benefit grew faster during the early months of the coronavirus (COVID-19) pandemic for males compared with females

Age-standardised percentage of people who received a benefit by sex, November 2019 to March 2021, England

Figure 5: The percentage of people who received a benefit grew faster during the early months of the coronavirus (COVID-19) pandemic for males compared with females

Age-standardised percentage of people who received a benefit by sex, November 2019 to March 2021, England

Source: 2011 Census and death registrations from the Office for National Statistics, General Practice Extraction Service Data for Pandemic Planning and Research from NHS England, and the Benefits and Income Datasets from the Department for Work and Pensions

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

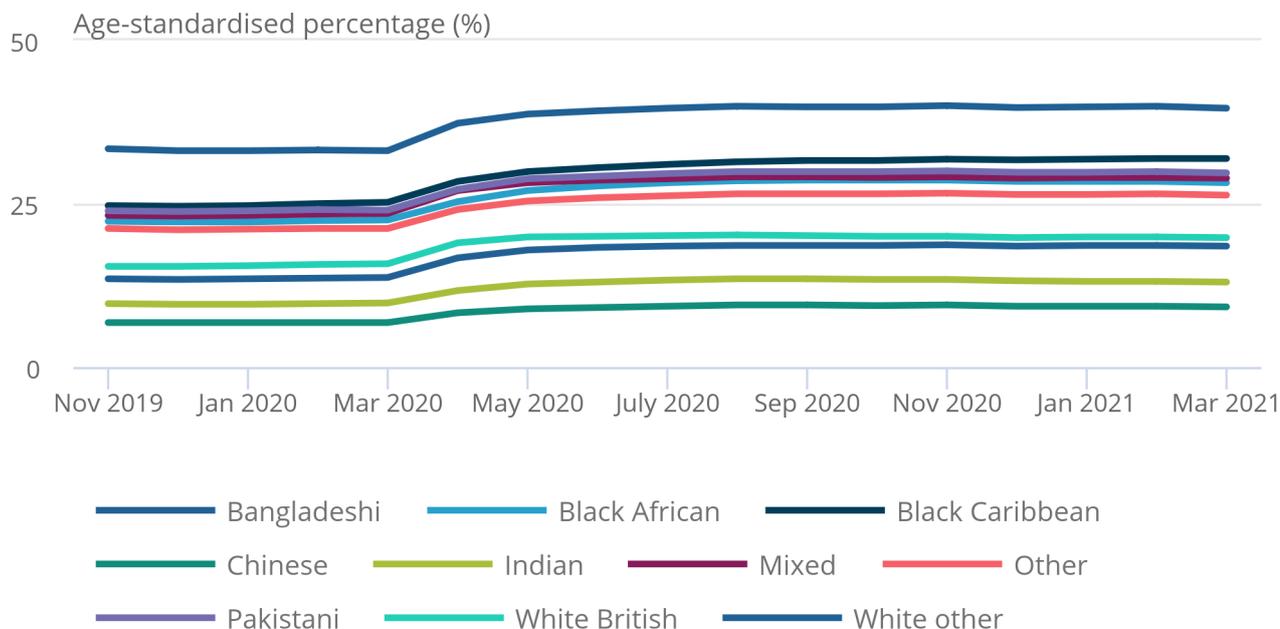2. The breakdown by sex is based on information from 2011 Census.

At the beginning of the study period in November 2019, the Bangladeshi, Black Caribbean, Pakistani, Mixed, Black African and Other ethnic groups all had higher age-standardised percentages of people who received a benefit compared with the White British, White Other, Indian and Chinese ethnic groups (Figure 6). The ethnic groups with the highest pre-coronavirus pandemic percentages also saw the greatest increases in the percentage, in absolute terms, during the one-year period of the coronavirus pandemic covered in this analysis (March 2020 to March 2021). Therefore, the ethnic differences in benefit recipients that existed before the start of the coronavirus pandemic became wider during the pandemic.

Figure 6: The percentage of people who received a benefit increased more in absolute terms during the coronavirus (COVID-19) pandemic for ethnic groups that had higher pre-pandemic percentages

Age-standardised percentage of people who received a benefit by ethnic group, November 2019 to March 2021, England

Figure 6: The percentage of people who received a benefit increased more in absolute terms during the coronavirus (COVID-19) pandemic for ethnic groups that had higher pre-pandemic percentages

Age-standardised percentage of people who received a benefit by ethnic group, November 2019 to March 2021, England

Source: 2011 Census and death registrations from the Office for National Statistics, General Practice Extraction Service Data for Pandemic Planning and Research from NHS England, and the Benefits and Income Datasets from the Department for Work and Pensions

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

2. The breakdown by ethnic group is based on information from 2011 Census.

People living in more deprived areas, according to the Ministry of Housing, Communities and Local Government's English indices of deprivation 2019, had a higher age-standardised percentage of people who received a benefit in November 2019 (before the start of the coronavirus pandemic) than those living in less deprived areas (Figure 7). This percentage was 29.8% among people living in the most deprived quintile group compared with 7.0% among those living in the least deprived quintile group. The percentage of people who received a benefit also increased by a greater absolute amount for those in more deprived areas during the first three months of the coronavirus pandemic (5.0 percentage points compared with 3.4 percentage points for people living the most and least deprived quintile groups, respectively).
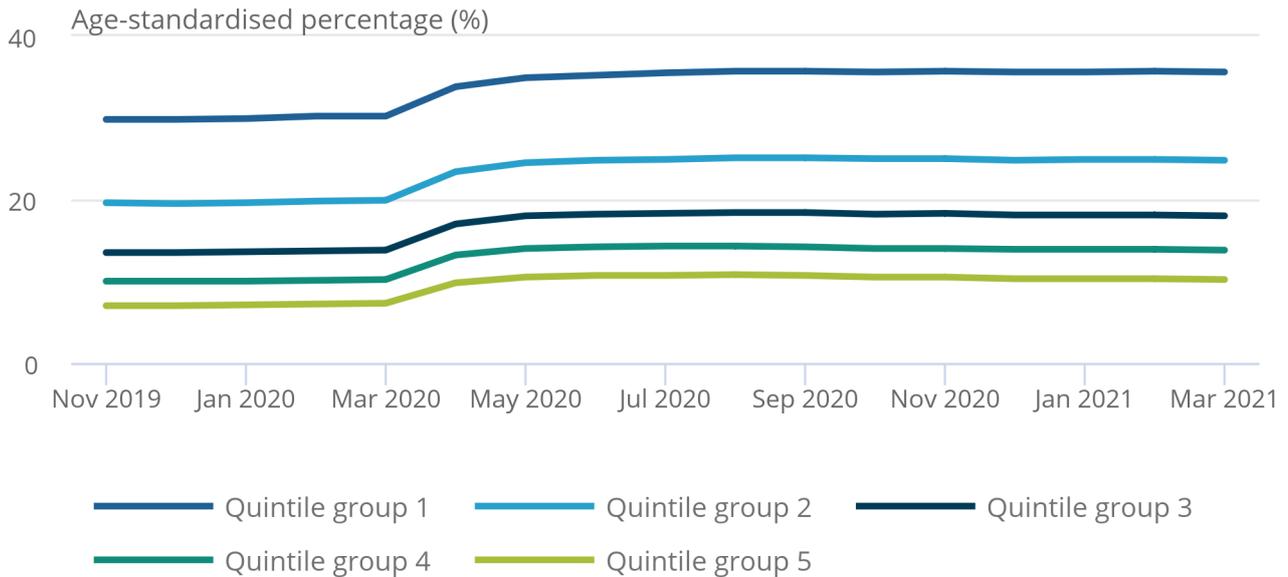
This increased difference between people living in more and less deprived areas persisted throughout the one-year period of the coronavirus pandemic covered in this analysis. Therefore, the deprivation differences in benefit recipients that existed before the start of the coronavirus pandemic became wider during the pandemic.

Figure 7: A higher percentage of people living in more deprived areas received a benefit than those in less deprived areas before the coronavirus (COVID-19) pandemic, and this difference increased in the first year of the pandemic

Age-standardised percentage of people who received a benefit by area deprivation quintile group, November 2019 to March 2021, England

Figure 7: A higher percentage of people living in more deprived areas received a benefit than those in less deprived areas before the coronavirus (COVID-19) pandemic, and this difference increased in the first year of the pandemic

Age-standardised percentage of people who received a benefit by area deprivation quintile group, November 2019 to March 2021, England

Source: 2011 Census and death registrations from the Office for National Statistics, General Practice Extraction Service Data for Pandemic Planning and Research from NHS England, and the Benefits and Income Datasets from the Department for Work and Pensions

Notes:

1. Estimates are shown for people aged 16 to 64 years in each month of the study period.

2. The breakdown by area deprivation quintile group is based on information from 2011 Census.
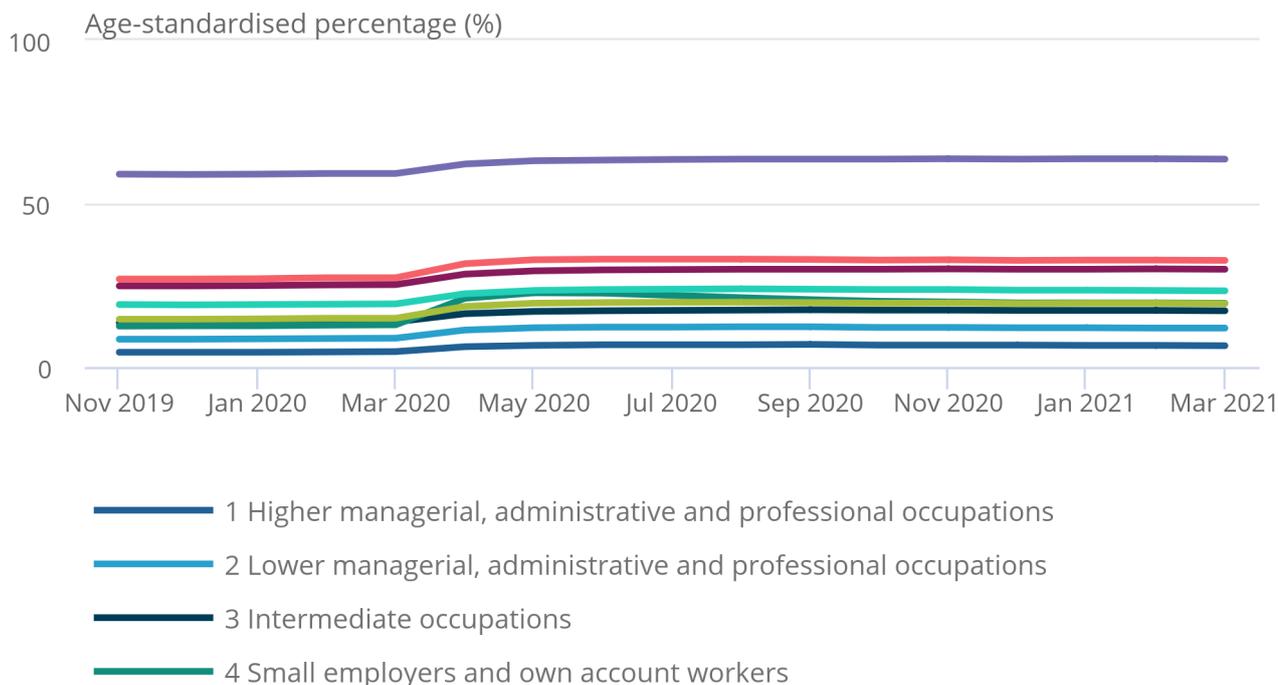
People in occupations classified as "small employers and own account workers" saw the largest increase in the age-standardised percentage of those who received a benefit at the onset of the coronavirus pandemic, from 12.9% in March 2020 to 22.6% in June 2020 (Figure 8). However, as the pandemic continued through to March 2021, this percentage decreased relative to other occupational groups to be roughly in line with the overall trend.

Figure 8: The percentage of people classified as "small employers and own account workers" who received a benefit increased notably in the first three months of the coronavirus (COVID-19) pandemic

Age-standardised percentage of people who received a benefit by National Statistics Socio-economic Classification (NS-SEC), November 2019 to March 2021, England

Source: 2011 Census and death registrations from the Office for National Statistics, General Practice Extraction Service Data for Pandemic Planning and Research from NHS England, and the Benefits and Income Datasets from the Department for Work and Pensions

Notes:

1. Estimates are shown for people aged 25 to 64 years in each month of the study period. People aged 16 to 24 years are excluded because they would have been aged under 16 years at the time of 2011 Census and therefore will not have had an occupation.

2. The breakdown by National Statistics Socio-economic Classification (NS-SEC) is based on information from 2011 Census.

3. This chart excludes groups that were not classifiable, including full-time students and people with insufficient occupation information at 2011 Census.

Regional trends in the age-standardised percentage of people who received a benefit can be found in our accompanying dataset.

4 . Benefit recipients during the coronavirus (COVID-19) pandemic data

5 . Glossary

Age-standardised percentage

Age standardisation enables comparisons to be made between groups that contain different proportions of people of different ages (for example, on average, people with health conditions tend to be older than those without health conditions). Age-standardised percentages were calculated as the weighted sum of age-specific percentages in five-year age bands, with age-specific weights representing the overall age distribution in the observed study population at the start of the study period.

Benefit recipient

People who have received a benefit are those who have made a benefit claim, have been deemed eligible for the benefit and received the benefit payment. In any given month, this includes people who were already receiving a benefit at the start of the month in addition to those who had been newly awarded a benefit during the month. Individual benefits included in this analysis are listed in Section 6: Measuring the data.

Coronavirus and COVID-19

Coronaviruses are a family of viruses that cause disease in people and animals. They can cause the common cold or more severe diseases, such as COVID-19. COVID-19 is the name used to refer to the disease caused by the SARS-CoV-2 virus, which is a type of coronavirus. The Office for National Statistics (ONS) takes COVID-19 to mean the presence of SARS-CoV-2 with or without symptoms.

For this analysis, we used March 2020 as the start of the coronavirus (COVID-19) pandemic because this is when social restrictions were first implemented in the UK, and therefore when we might expect to see an effect on employment and benefit recipients. This differs to some previous ONS analyses that used January 2020 as the start of the coronavirus pandemic; this is when the first known COVID-19 cases arrived in the UK, and is therefore a more appropriate start date for analyses of health rather than labour market outcomes.

6 . Measuring the data

Data sources

The data sources used in this analysis were:

- 2011 Census, to define the study population and retrieve sociodemographic characteristics

- death registrations, to remove from the study population people who died after completing 2011 Census, before the start of the study period (explained below) and before each month of the study period

- the NHS General Practice Extraction Service (GPES) Data for Pandemic Planning and Research (GDPPR) dataset, to restrict the study population to people who were active NHS patients at the start of the coronavirus (COVID-19) pandemic and were therefore unlikely to have emigrated since 2011 Census, and to derive pre-existing health conditions at the start of the study period

- the Benefits and Income Datasets (BIDs) from the Department for Work and Pensions (DWP), to identify people who received social security benefits, and the start and end dates of their receipts, during the study period

BIDs contain information on the following benefit types:

- Universal Credit

- Personal Independence Payment

- Housing Benefit

- Carer's Allowance

- Disability Living Allowance

- Employment Support Allowance

- Incapacity Benefit

- Income Support

- Jobseeker's Allowance

- Severe Disablement Allowance

BIDs also include information on Attendance Allowance, Pension Credit and Retirement (State) Pension. However, these benefits were excluded from the analysis because they relate to people aged 65 years and over, while our study population of interest comprised people aged 16 to 64 years. Bereavement Benefit and Widow's Benefit were also excluded from the analysis because these benefits are not related to health or employment. For further information, see GOV.UK's Benefits web page.

All data sources were de-identified prior to analysis, as outlined in our Using the power of linked data to understand factors preventing people from working blog.

Study population

The study population comprised approximately 28 million people who:

- responded to 2011 Census

- could be linked to an NHS Number via the 2011 to 2013 Patient Registers

- could be linked to GDPPR via the 2019 NHS Personal Demographics Service (PDS)

- could be linked to the DWP Customer Information System (CIS)

- were resident in England (using place of residence from GDPPR if available, otherwise from 2011 Census)

- were alive and of working age (aged 16 to 64 years) in each month of the study period

Of 2011 Census respondents who were resident in England and of working age at the start of the study period, 86.6% could be linked to GDPPR and the CIS.

Study period

The study period covered 1 November 2019 to 31 March 2021. We could not start the analysis before November 2019 because GDPPR only contains information on people who were alive and registered with the NHS from this point onwards, and we linked to this dataset using the 2019 PDS.

Therefore, anyone who died before November 2019 would not be included in our study population; starting the study period earlier than this could have introduced bias into the analysis.

For this analysis, data on Universal Credit and Housing Benefit were available until the end of March 2021, which therefore defined the end of the study period.

Statistical methods

We calculated the number of people who had received a benefit in each month of the study period as the number of people who had an open award for at least one of the listed social security benefits at the midpoint of the month. Universal Credit and Housing Benefit are awarded to entire households. We therefore classified individuals within households who received these benefits as themselves being in receipt of the benefit if they were referenced on the award.

The age-standardised percentage (see Section 5: Glossary) of people who received a benefit was estimated for people with and without the following long-term health conditions:

- musculoskeletal conditions (rheumatoid arthritis, osteoporosis and fragility fractures)

- cardiovascular conditions (coronary heart disease, stroke, heart failure, myocardial infarction, atrial fibrillation, peripheral arterial disease and transient ischaemic attack)

- respiratory conditions (chronic obstructive pulmonary disease and asthma)

- autism

- learning disability

People were identified as having these conditions based on the presence of a relevant SNOMED CT code in their primary care records from 1 January 2011 to 31 October 2019 (the day before the start of the study period).

We also calculated age-standardised percentages by the following sociodemographic characteristics:

- age group (not age-standardised within groups)

- sex

- ethnic group

- region

- English indices of deprivation 2019 quintile group

- disability status

- general health status

For age-standardised percentages, [95% confidence intervals](#) were constructed using the normal approximation.

Collaboration

This analysis was produced in collaboration with the Department of Health and Social Care and Department for Work and Pensions Joint Work and Health Directorate, particularly Nisha Patel, Miriam Wlasny, Hayley Moore Purvis and Frederick Wheeler. The analysis was funded by HM Treasury's Shared Outcomes Fund, which was established in 2019 to incentivise government departments to work collaboratively across challenging policy areas to strengthen joint working, improve outcomes and deliver better value for citizens.

7 . Strengths and limitations

The main strength of this analysis is the large sample size, with the study population covering the majority of working-age people in England who were enumerated at 2011 Census. This enabled us to produce estimates for granular groups with high levels of statistical precision.

The main limitation of this analysis is its descriptive nature, meaning that cause-and-effect relationships cannot be inferred. Specifically, we cannot say whether trends in benefit recipients were caused by the coronavirus (COVID-19) pandemic or if they would have been observed anyway.

Not everyone in the working-age population of England who received a social security benefit during the study period will be included in the study population (for example, because some people either could not be being linked to 2011 Census even though they responded to it, did not complete 2011 Census even though they were resident in the country in March 2011, or have migrated into the country since March 2011). If these benefit recipients who were excluded from the study population are systematically different to those who were included in terms of their health status and sociodemographic characteristics, this may have distorted our findings to some extent.

Trends in benefit recipients over the study period may have been lowered for people with health conditions, relative to those without. This is because disability status and general health status were self-reported at 2011 Census, and long-term health conditions were identified from health records up to November 2019. Therefore, if someone first developed a health condition or disability during the coronavirus pandemic, they would not be classified as such in our analysis. Furthermore, people with health conditions were more likely to die during the study period than those without, and individuals who had died were not included in our calculations following their death.

Sociodemographic characteristics were derived from 2011 Census data. The characteristics of anyone whose circumstances changed between March 2011 and November 2019 (for example, moving from an area of high to low deprivation, or changing occupation or socioeconomic classification) would not be up to date in this analysis.

While many working-age people who are economically inactive because of long-term sickness report having depression, bad nerves or anxiety, we did not have robust data on mental health conditions for this analysis. For further information, see our Rising ill-health and economic inactivity because of long-term sickness, UK: 2019 to 2023 article.

For this analysis, we used a binary measure indicating whether a person received at least one benefit type at least once, or did not receive any benefits, in each month. Therefore, the trends presented do not necessarily represent any changes in the number of benefit types or the total monetary amount a person received in each month.

8 . Related links

[Labour market overview, UK](#)
Bulletin | Released monthly
Estimates of employment, unemployment, economic inactivity and other employment-related statistics for the UK.

[Half a million more people are out of the labour force because of long-term sickness](#)
Article | 10 November 2022
Between June and August 2022, around 2.5 million people reported long-term sickness as the main reason for economic inactivity, up from around 2 million in 2019.

[Health, demographic and labour market influences on economic inactivity, UK: 2019 to 2022](#)
Article | 19 May 2023
Estimates of the links between work-limiting ill health, demographic and labour market changes, and recent rises in economic inactivity, using Annual Population Survey data. Experimental Statistics.

[Rising ill-health and economic inactivity because of long-term sickness, UK: 2019 to 2023](#)
Article | 26 July 2023
Experimental statistics estimating the different health conditions of the working-age population and those economically inactive because of long-term sickness.

[Census 2021 to Personal Demographics Service linkage report](#)
Methodology | 23 August 2023
Methods used to link Census 2021 to the Personal Demographics Service (PDS) using deterministic and probabilistic methods.

9 . Cite this statistical bulletin

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