

## Appendix 1: Inequalities due to the Covid-19 pandemic

The impacts of COVID-19 have not been felt equally across our population and exacerbated existing health inequalities, with elevated risk including:

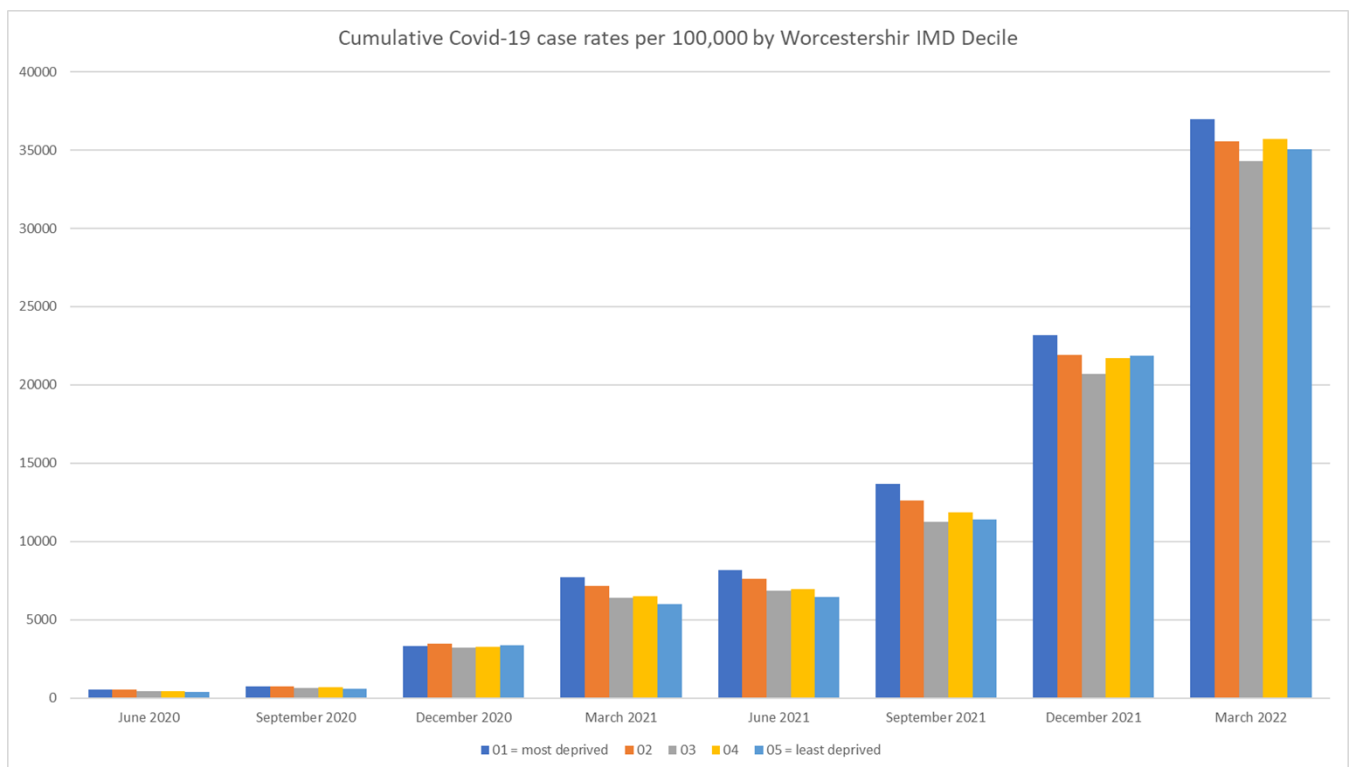
- Pre-existing disease
- Risk of exposure
- Experience of lockdown
- Changes in provision or access to health, social care and essential services
- Socio-economic status
- Ethnicity

Local data suggests a strong relationship between mortality due to COVID-19 and older age and a clear relationship between higher mortality and level of deprivation.

In the following sections we consider inequalities in the key measures of infection, mortality and vaccination before looking at wider inequality issues arising from the pandemic.

### Infection

The chart below shows that inequalities in covid infection rates by deprivation have persisted throughout the pandemic – the most deprived have had the highest levels of infection:



The widest differences by deprivation were seen in the early stages of the pandemic. Differences between the most and least deprived were reduced after vaccination commenced, and as the Omicron variant became widespread in late 2021. In general,

the biggest differences occurred when the health impacts of contracting COVID-19 were greatest.

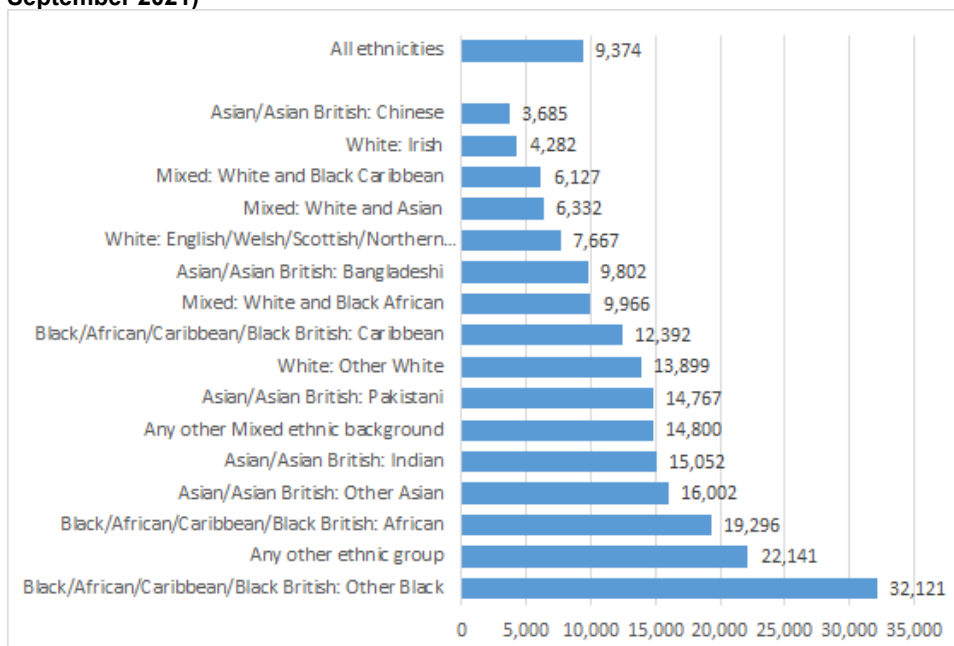
The difference in case rates between IMD 1 (most deprived) and IMD 5 (least deprived) is given in the table below:

March 2020	6%
June 2020	40%
September 2020	27%
December 2020	0%
March 2021	29%
June 2021	26%
September 2021	20%
December 2021	6%
March 2022	6%

Infection rates varied considerably by ethnic group, as shown below. While this data is over a year old it remains relevant as it covers a period in which the health impacts of the pandemic were most acute. In Worcestershire, several ethnic groups have had high numbers of cases. These include:

- Any other Black/African/Caribbean group
- Other ethnic groups
- African
- Any other Asian background
- Indian
- Any other Mixed Background
- Pakistani

**Cases in Worcestershire per 100,000 population by ethnic group (beginning of the pandemic up to 7th September 2021)**

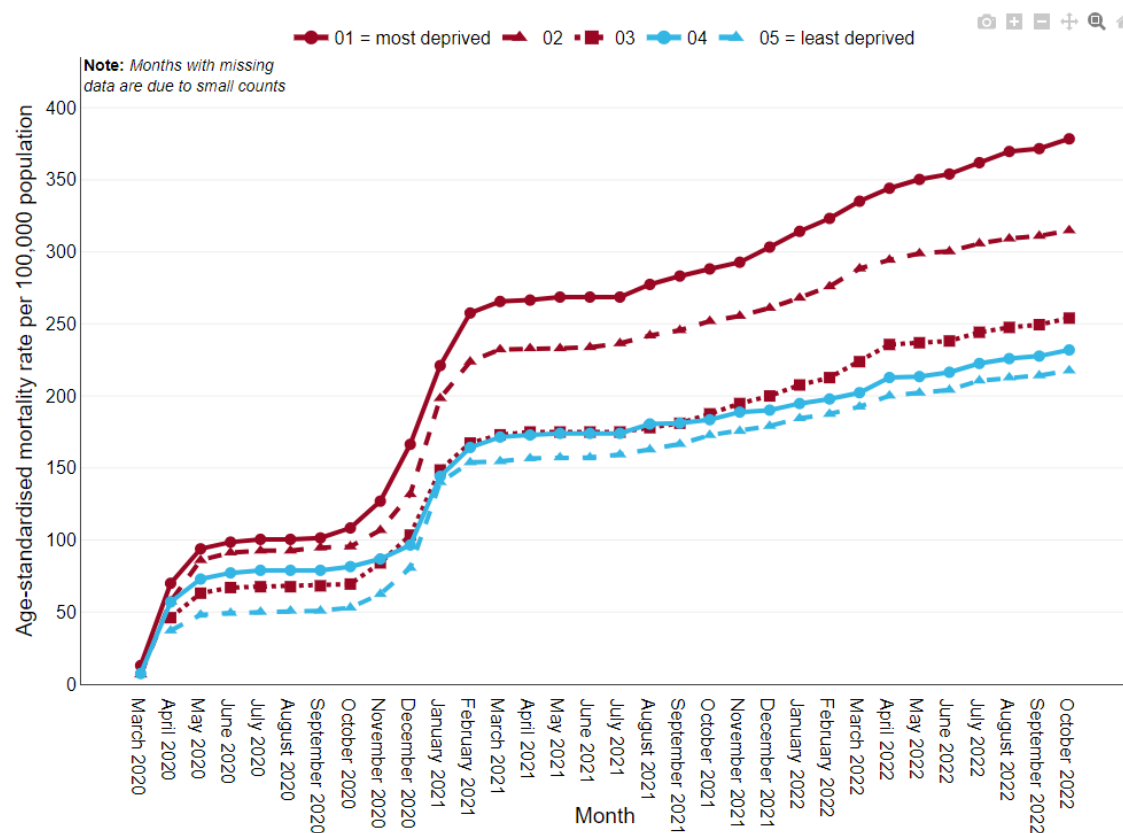


## Mortality

There are clear inequalities in mortality by deprivation of residence, which have persisted throughout the pandemic. These inequalities have arisen as a combination of higher infection rates in deprived communities, as well as greater susceptibility to severe illness (for example, due to greater incidence of long-term conditions in deprived communities).

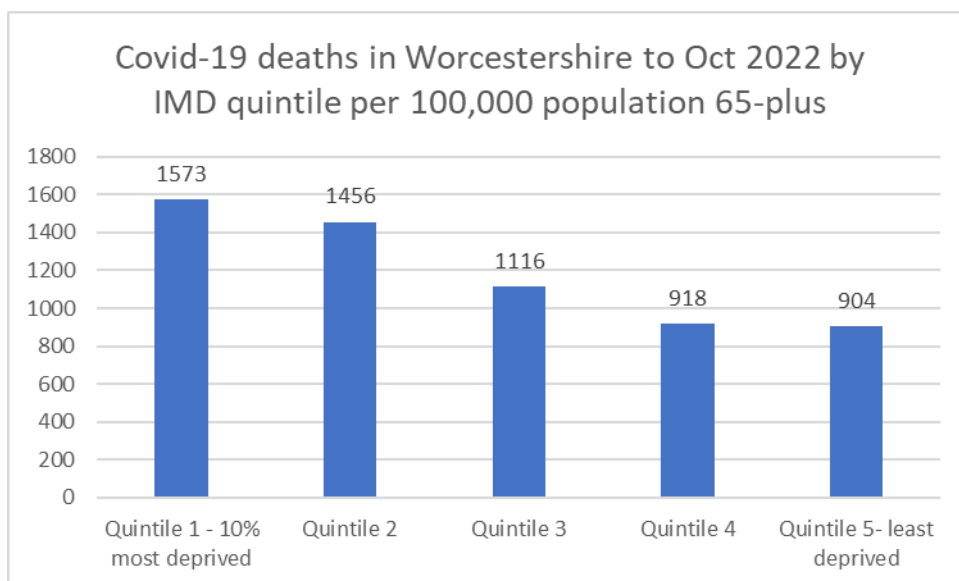
The chart below shows a clear link between case rates and deprivation of residence in Worcestershire.

Cumulative age-standardised mortality rate per 100,000 population, for deaths involving COVID-19 in Worcestershire by deprivation quintiles within Worcestershire, all ages, March 2020 to October 2022



NB. Worcestershire IMD quintiles

When looking at the over 65 population where the majority of deaths occurred, the impact was far greater for those living in relatively deprived areas, in which the mortality rate was around 50% higher than in the least deprived areas.



NB. Deaths with an underlying cause of Covid-10, national IMD quintiles

Worcestershire data on mortality rates by ethnicity is not available. National research suggests that there were significant differences in mortality rates for ethnic groups with particularly high rates in the Pakistani and Bangladeshi ethnic groups.

According to the Office for National Statistics, males in the Pakistani ethnic group have had the highest rate of death involving COVID-19, 3.8 times higher than males in the White British ethnic group; this was followed by Pakistani males (2.6 times) and Black Caribbean males (2.0 times); females in the Bangladeshi ethnic group had the highest rate of death involving COVID-19, 2.8 times higher than females in the White British ethnic group, followed by Bangladeshi females (2.3 times) and females in the Black Caribbean ethnic group (1.7 times). (data from 1 March 2020 to 22 February 2022)

It is well established that COVID-19 had a particularly harmful effect on older people, and also that males had higher death rates than females, as shown in the table below:

#### **Covid-19 Mortality rate per 100,000, Worcestershire, March 2020 to October 2022**

Age Group	Male	Female	Persons
<55	18.4	11.1	14.7
55 - 64	158.1	110.1	133.8
65 - 74	424.9	239.9	330.2
75 - 84	1327.2	929.5	1115.5
85 and over	4814.9	3254.3	3838.2

### **Vaccination**

Vaccination against COVID-19 has proved to be very effective in preventing illness and death, but there are inequalities in take up according to deprivation and ethnicity.

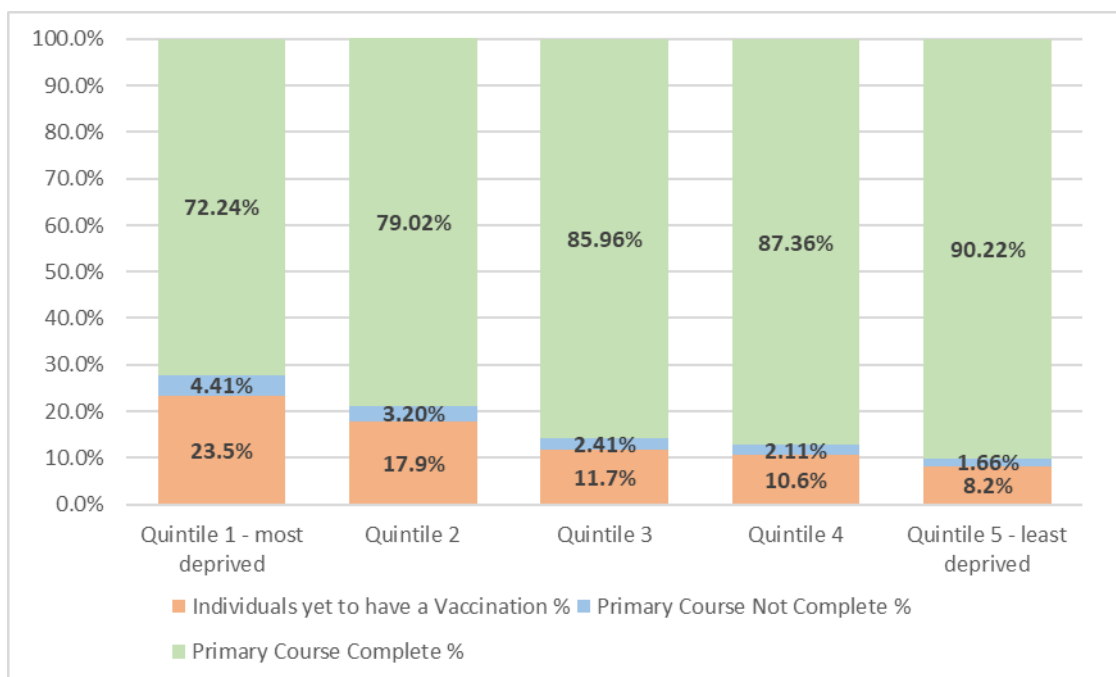
The following sets out COVID-19 vaccination data for Worcestershire by district, deprivation and ethnic group.

### Vaccination Inequalities by District (age 12+)

LA Name	Individuals	Individuals yet to have a Vaccination	Primary Course Not Complete %	Primary Course Complete %
Bromsgrove	75,717	10.8%	2.2%	87.1%
Malvern Hills	71,272	10.3%	2.2%	87.6%
Redditch	75,303	19.0%	3.1%	78.0%
Worcester	93,963	16.3%	3.1%	80.7%
Wychavon	115,021	11.1%	2.1%	86.9%
Wyre Forest	90,979	11.8%	2.7%	85.6%
<b>Worcestershire</b>	<b>522,255</b>	<b>13.1%</b>	<b>2.6%</b>	<b>84.4%</b>

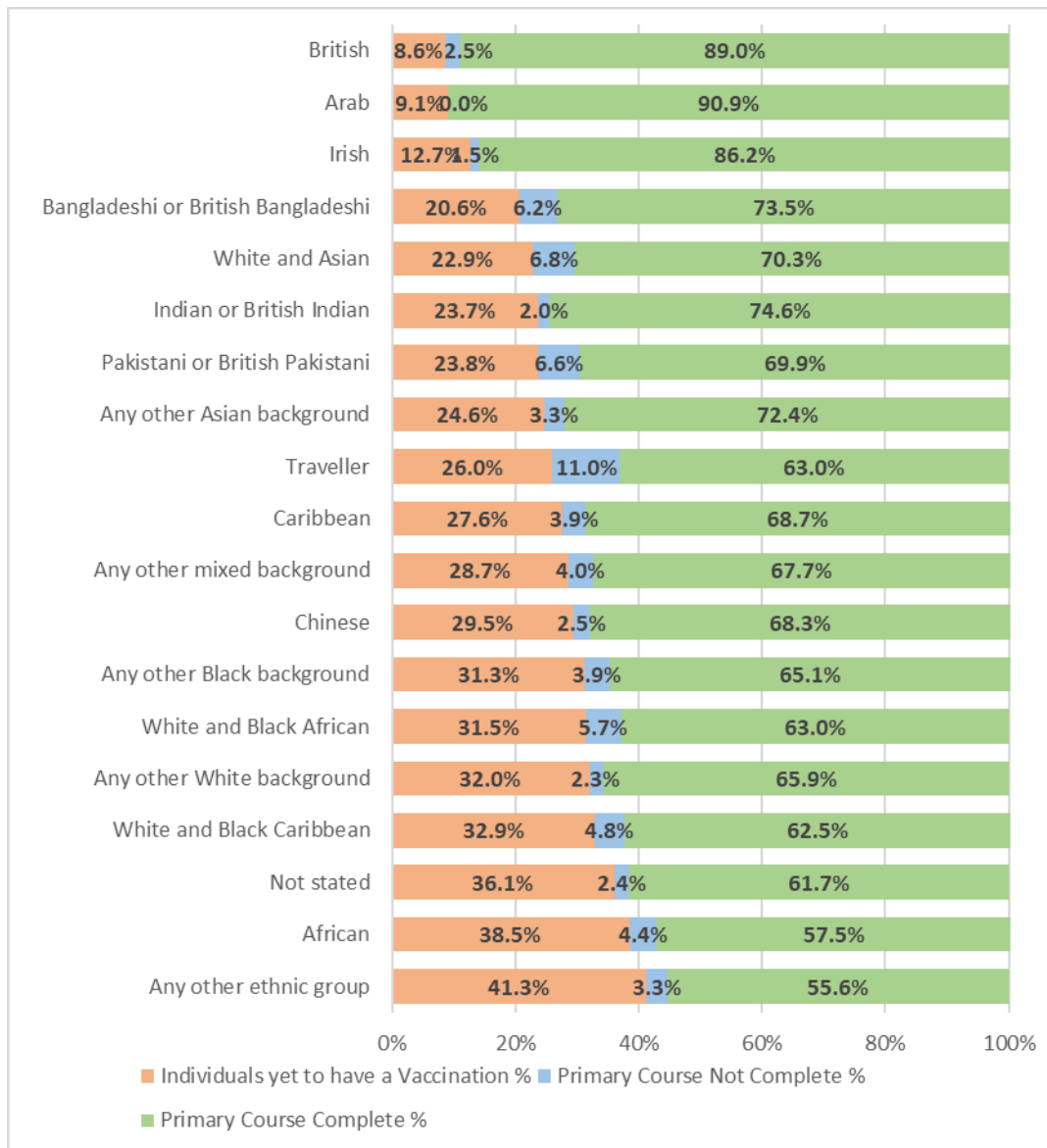
### Vaccine Inequalities by Deprivation (age 12+)

The data shows a strong link between deprivation and vaccination status, with those in the most deprived areas being three times as likely to not be vaccinated as those in the least deprived areas.



### Vaccine Inequalities by Ethnicity (age 12+)

There is significant inequality in vaccination rates by ethnicity in Worcestershire with non- white British groups having lower rates, as shown in the graph below:



The table below shows how the above rates translate into numbers of people.

Ethnic Category	Individuals Count	Individuals yet to have a Vaccination %
British	37456	8.6%
Arab	<10	9.1%
Irish	291	12.7%
Bangladeshi or British Bangladeshi	193	20.6%
White and Asian	255	22.9%
Indian or British Indian	1154	23.7%
Pakistani or British Pakistani	1141	23.8%
Any other Asian background	791	24.6%

Traveller	19	26.0%
Caribbean	260	27.6%
Any other mixed background	513	28.7%
Chinese	441	29.5%
Any other Black background	270	31.3%
White and Black African	220	31.5%
Any other White background	14181	32.0%
White and Black Caribbean	460	32.9%
Not stated	11510	36.1%
African	744	38.5%
Any other ethnic group	2113	41.3%

It should be noted that vaccination rates amongst the most vulnerable populations are much better than the above data suggests– for example it is estimated that 2.6% of those aged 80 and over in Worcestershire are unvaccinated.

## Long Covid

According to the Office for National Statistics ([Prevalence of ongoing symptoms following coronavirus \(COVID-19\) infection in the UK - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/health/long-covid/prevalence-of-ongoing-symptoms-following-coronavirus-covid-19-infection-in-the-uk)):

- An estimated 2.2 million people living in private households in the UK (3.4% of the population) were experiencing self-reported long COVID (symptoms continuing for more than four weeks after the first confirmed or suspected coronavirus (COVID-19) infection that were not explained by something else) as of 6 November 2022
- Long COVID symptoms adversely affected the day-to-day activities of 1.6 million people (75% of those with self-reported long COVID), with 370,000 (17%) reporting that their ability to undertake their day-to-day activities had been “limited a lot”.
- As a proportion of the UK population, the prevalence of self-reported long COVID was greatest in people aged 35 to 69 years, females, people living in more deprived areas, those working in social care, those aged 16 years or over who were not working and not looking for work, and those with another activity-limiting health condition or disability.

Estimates for Worcestershire aren’t available but if prevalence reflected national levels we would have 20,000 people with long Covid, of whom 15,000 having symptoms which adversely affected their day-to-day activities.

## **People with learning disabilities**

The COVID-19 pandemic has highlighted the impact of health inequalities and in people with learning disabilities, with rates of deaths being higher than other population groups. People with learning disabilities are likely to have had difficulty recognising symptoms of COVID-19, or following government advice about getting tested, self-isolation, social distancing and infection prevention and control. It may also be more difficult for people caring for them to recognise the onset of symptoms if these cannot be communicated.

## **Wider impacts of the pandemic**

A number of wider impacts of the pandemic have been observed, largely as a result of lockdowns and other restrictions on social contact. Below we describe some of the main ones.

For further information on the health and wider impacts of COVID-19 please see the JSNA summaries for 2020 and 2021 which can be downloaded here:

[JSNA Summaries, Worcestershire County Council](#)

## **Mental Health**

The pandemic has challenged mental health and wellbeing. Key points from the Worcestershire JSNA report [2022 Mental Health Needs Assessment impacts of the pandemic](#) are given below:

There is evidence from both national and local level data of a decline in mental wellbeing during the pandemic. These changes have not been equally experienced across the population.

COVID-19 has been impacting mental health need directly. The pandemic has led to excess deaths and disrupted experiences of bereavement which may increase the risk of new mental health problems in the medium to long term.

A further direct impact is due to Long Covid, which is a continuing concern and a multidisciplinary response including mental health services forms part of the developing model of care.

However, perhaps the greater impact will come indirectly from the measures implemented to control the virus. Enforced isolation combined with the collective uncertainty and anxieties generated during the early pandemic have challenged the wellbeing of the whole population but affected people in very different ways, for example when considering the impact of school closures.

Whilst some of these impacts are largely limited to the periods of national restrictions, others are continuing to evolve. These include the impacts on employment, wider economic effects, and pressures on health services, that have had to adapt rapidly in extremely challenging conditions.

Existing inequalities in mental health have continued and widened in some cases: Young adults, women, people with a pre-existing mental or physical health condition, those experiencing loss of income or unemployment, those in deprived areas and some



ethnic minority populations were more likely to experience poor or worsening mental health.

Symptoms of anxiety and depression remain more common than the best pre-pandemic estimates with similar trajectories to psychological distress.

## **Education**

The impact of missed education has disproportionately fallen on those children living in areas of enduring transmission and from poorer backgrounds. Pupils that are disadvantaged tend to have lower educational attainment than their peers – this is termed the disadvantage gap. The gap occurs because disadvantaged pupils tend to have less access to technology, spend less time learning and have reduced support from parents and carers.

Experiences of teaching and learning during the pandemic were diverse, but disadvantage and deprivation appear to be most associated with less effective learning and overall learning losses.

Research by the ONS found that remote learners in more deprived schools covered relatively less material than their in-class peers between April 2020 to June 2021.

They also found that according to teacher assessments pupils working from home covered less material than their peers in the classroom. This gap was wider for primary school pupils than secondary school pupils. Younger pupils' learning was more dependent on parental involvement than older pupils.

Nationally, the Key Stage 4 disadvantage gap index has widened in 2022 compared to 2020, from 3.66 to 3.84. It is now at its highest level since 2011/12. The Key Stage 4 disadvantage gap index measures the difference in grades between disadvantaged pupils (eg. free school meal eligible) and the rest.

The widening of the disadvantaged gap index may reflect the difficult circumstances that many pupils will have experienced over the last few academic years which saw various restrictions put in place in response to the COVID-19 pandemic (e.g. periods of lockdowns and tiers) that resulted in restricted attendance to schools and periods of home learning.

## **Alcohol consumption**

In July 2021 Public Health England (PHE) published a report on the trends in alcohol consumption and harm. The findings show an increase in total alcohol-specific deaths, driven by an unprecedented annual increase in alcoholic liver disease deaths above levels seen pre-pandemic.

Despite pubs, clubs and restaurants closing for approximately 31 weeks during the national lockdowns, the total amount of alcohol released for sale during the pandemic was still similar to the pre-pandemic years which suggests people were drinking more at home.

Those people who typically bought the most alcohol pre-pandemic bought a lot more once the first lockdown happened. The PHE report states that there was a 58.6%

increase nationally in the proportion of the population drinking at increasing risk and higher risk levels between March 2020 and March 2021.  
ONS (Dec 2022)

Evidence from survey data collected by the Department of Health and Social Care (DHSC) suggested that respondents were more likely to report increasing their alcohol consumption during the coronavirus (COVID-19) pandemic compared with previous years, with "a step-change around the time the pandemic began".

Alcoholic liver disease typically takes many years to develop. However, increases in alcohol consumption among those who have already been consuming alcohol at higher-risk levels can lead to rises in mortality in a short period of time, from what is known as "acute-on-chronic" liver failure. The DHSC's survey data suggested people who were already drinking at higher levels before the pandemic were the most likely to report increases in their alcohol consumption in 2020.

There were 9,641 deaths related to alcohol-specific causes registered in the UK in 2021, equivalent to 14.8 deaths per 100,000 people. That was 667 more deaths (a 7.4% increase) than in 2020, when there were 8,974 deaths, equivalent to 14.0 deaths per 100,000 people.

Alcohol-specific deaths have risen sharply since 2019. The 9,641 deaths registered in 2021 were 2,076 more than the 7,565 deaths registered in 2019, which is a rise of 27.4%. The alcohol-specific death rate rose from 11.8 to 14.8 per 100,000 over the same period. The number of deaths in 2021 is a record high in the data time series (beginning in 2001).

Alcohol-specific deaths only include those health conditions where each death is a direct consequence of alcohol (that is, wholly attributable causes such as alcoholic liver disease). It does not include all deaths that can be attributed to alcohol.

## **Physical Activity**

Nationally, a reduction in physical activity levels has been seen, particularly for people in Black and Asian groups and lower socioeconomic groups.

The 2021/22 National Child Measurement Programme data indicates that the proportion of Year 6 children in Worcestershire who are overweight or obese has increased from the 2018/19 level from 36.1% to 38.7% for boys and 29.3% to 33.0% for girls. This could be a consequence of reduced physical activity and poorer diet. (The rates for reception children have remained largely unchanged)

For both reception and year 6, data for 2022 shows that rates of childhood obesity are higher in the more deprived areas of Worcestershire, and that the differences by deprivation have increased since the start of the pandemic.