

# Inequalities in health care for people with depression and/or anxiety

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## Key points

- This long read describes the health care use of people with depression and/or anxiety across primary and secondary care prior to the coronavirus (COVID-19) pandemic. We highlight the broader health needs of these patients, and longstanding variation in use of health care by level of socioeconomic deprivation.
- In England, almost three-quarters of people with depression and/or anxiety have at least one other physical or mental health-related long-term condition while almost a third have three or more other long-term conditions. Chronic pain is particularly prevalent among people with depression and/or anxiety (30.7% – almost double the rate seen in the general population), as are hypertension and irritable bowel syndrome.
- People with depression and/or anxiety are more likely to have additional long-term conditions if they live in areas of higher socioeconomic deprivation. Among people aged 45–64 years, 72% of people with depression and/or anxiety in the least deprived areas of England had at least one additional long-term condition, compared with 86% in the most deprived areas.
- People with depression and/or anxiety have more primary care consultations if they have additional long-term conditions, as would be expected. This group are also prescribed more medications, including more mental health-related medications. When the data are analysed by deprivation, the story becomes more complex.
- People with depression and/or anxiety living in more deprived areas are prescribed more medications, which might suggest they have a higher level of clinical need. However, they do not receive more primary care consultations than people with depression and/or anxiety in less deprived areas, despite their potentially higher level of need.
- Unplanned secondary health care use (A&E visits and emergency hospital admissions) is higher for people with depression and/or anxiety living in more deprived areas, yet planned secondary health care use (elective hospital admissions and outpatient appointments) is not higher. This suggests that, despite their complex needs, people in the most deprived areas are not receiving as good care as those in the least deprived areas. It is unclear whether this is due to problems with the availability or suitability of services in more deprived areas, or differences in treatment-seeking behaviours.
- People with depression and/or anxiety use secondary health care for mental health needs relatively rarely. Nevertheless, we found evidence that they are more likely to use unplanned secondary health care relating to mental health if they live in more deprived areas. We do not see this pattern with deprivation for planned secondary mental health care use.
- Further research is needed into the inequalities highlighted by this analysis. These are important at any time, yet the COVID-19 pandemic has made the issues more acute. The latest estimates are that up to 10 million people in England have additional mental health needs as a direct consequence of the pandemic. Resources must be targeted appropriately, particularly to

primary care services in deprived areas to help meet the needs of people with mental health conditions.

# 1. Introduction

As a result of the wide-ranging economic, social, and health impacts of COVID-19, modellers estimate that the pandemic will lead to additional mental health needs for up to 10 million people in England (around 20% of the population). Those with existing long-term conditions may face particular challenges, potentially exacerbated by difficulties in accessing health care for the ongoing management of their conditions.

Even prior to the COVID-19 pandemic, surveys had identified a growing number of people with depression and/or anxiety over the past two decades. To address this, there are funding commitments in the NHS long term plan to improve mental health care services that are widely regarded as being under-resourced. It is important that mental health services have data available on patterns of health needs and health care use, so they can effectively plan services that reach those with the greatest need. Here we examine the health care needs of patients with depression and/or anxiety, examining the additional impacts of other long-term conditions (both physical and mental) and deprivation.

Previous research from the Health Foundation and others shows that people living in deprived areas are more likely to have multiple long-term conditions, including mental health conditions. There is also evidence that for people with multiple conditions, having a mental health condition particularly increases health care use. Public Health England have previously examined the physical health care needs of people with severe mental illness, finding inequalities in physical health that were exacerbated by deprivation. But for people with depression and/or anxiety there is an incomplete picture of:

1. health care use across both primary and secondary care (due to the lack of linked datasets)
2. the combined impact of the number of long-term conditions a person has, and their socioeconomic circumstances on this pattern of health care use.

Here we use data from GP and linked hospital records for people with depression and/or anxiety, to observe the prevalence of other long-term conditions and examine how health care use varies across this group by level of deprivation. Our data captures variation in health care use over the 2-year period from 2016 to 2018.

## 2. About this research

We accessed data via Clinical Practice Research Datalink (CPRD) (ISAC protocol number 19\_178). Our sample included 103,991 adults in England with depression and/or anxiety. The presence of depression, anxiety and 35 other long-term conditions was established using previously developed code lists and read codes recorded in primary care records between 1 November 2015 and 31 October 2016. As this analysis relies on codes recorded within primary care, variation in treatment seeking or recording of symptoms/diagnoses between different groups may bias these results.

Estimates suggest that up to half of people with depression do not have this recognised in primary care. Around one in three people with depression and/or anxiety receive mental health treatment though this varies with the severity of symptoms. The primary care records were linked to data on the Index of Multiple Deprivation (as quintiles – five groups – based on the patient's postcode) and secondary care data from the Hospital Episode Statistics. Primary and secondary care use was assessed between 1 November 2016 and 31 October 2018.

CPRD covers a network of GP practices across the UK, currently covering around 4.8% of the UK population, and is broadly representative of the UK population in terms of age, sex and ethnicity. Linkage is only available for patients within England. It was not possible to obtain linked information for all health care use; for example, we do not have data from community mental health or Increasing Access to Psychological Therapies (IAPT) services.

At times in this analysis, we compare the health care use of people with depression and/or anxiety with that of the general population. The statistics for the general population were produced from a randomly selected CPRD sample of 230,177 adults covering the same period and applying the same methods to capture long-term conditions (CPRD amendment number 17\_150RMn2). In this general population sample, 10.5% have depression or anxiety.

The Technical appendix and our online GitHub repository have further details on the methods used.

### 3. Most people with depression and/or anxiety have additional long-term conditions

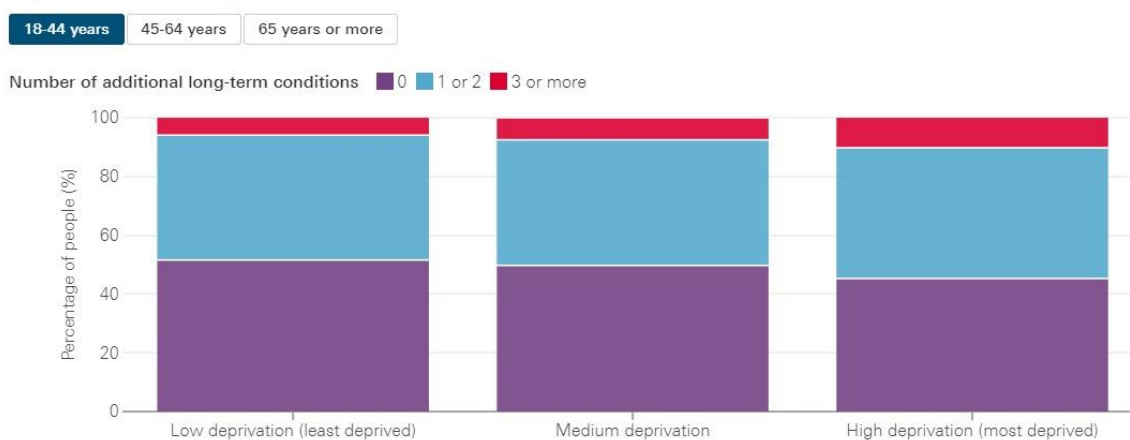
In our sample of people with depression and/or anxiety, 73% were managing at least one additional long-term condition, and 32% were managing three or more additional conditions. As a comparison, in the general population sample 54% of adults had at least one long-term condition and 17% had three or more conditions.

The number of long-term conditions a person has was strongly patterned with age, but even among 18–44 year olds, 51% with depression and/or anxiety had at least one additional condition (Figure 1). There was a socioeconomic gradient for all age groups, especially for those aged 45–64 years. In that age group, 72% of people living in the least deprived 20% of areas had at least one additional condition. This rose to almost 86% for those in the most deprived 20% of areas.

Figure 1:

People with depression and/or anxiety living in the most deprived areas are more likely to have other long-term conditions

Additional long-term conditions among people with depression and/or anxiety, by age and neighbourhood deprivation level, England



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Source: Health Foundation analysis of health care data from 2016-2018, accessed via CPRD, view code on GitHub • IMD deprivation data was available in quintiles, covering the least deprived 20% of areas to the most deprived 20% of areas. For the purposes of data visualisation, we collapsed these groups as follows: low deprivation = least deprived 20% of areas, medium deprivation = least deprived 20-80% of areas, high deprivation = most deprived 20% of areas.

Evidence indicates that the link between socioeconomic deprivation and long-term conditions is complex. Socioeconomic deprivation is a risk factor for developing more long-term conditions over time, but people living with multiple conditions have also described how this can impact on their work and so their economic situation.

## 4. Painful conditions are common among people with depression and/or anxiety

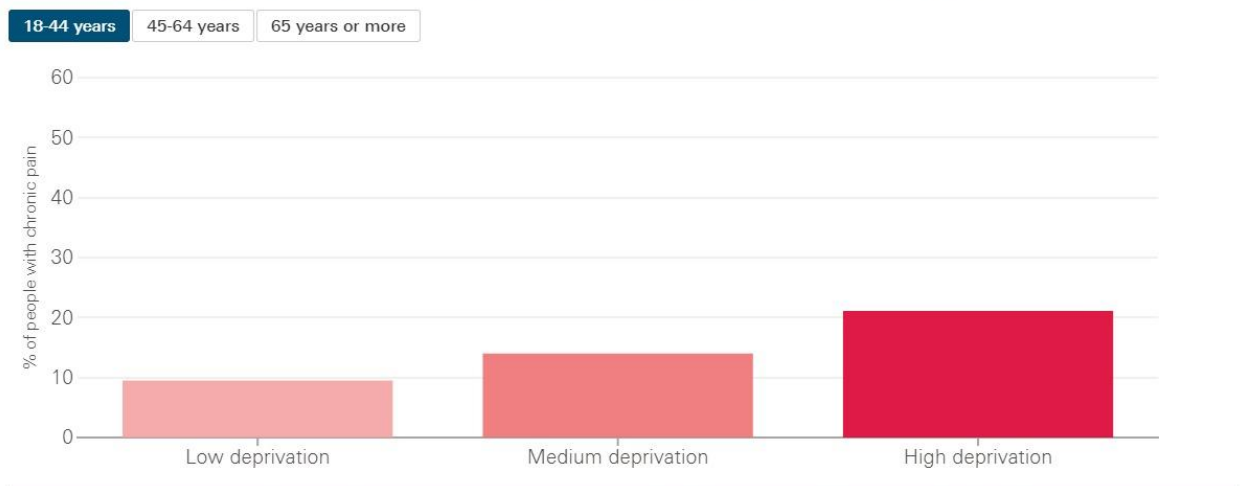
The impact of having a long-term condition will vary between people, depending on the specific conditions, as well as the severity of the conditions and the availability of suitable support. Our data show that the prevalence of all other 35 long-term conditions captured were higher in the sample of people with depression and/or anxiety, as compared with the general population sample, in line with previous evidence. We do not assess the order in which these conditions may develop.

Chronic pain was the most commonly recorded other long-term condition among those with depression and/or anxiety, observed for 30.7% of individuals – almost double the percentage seen in the general population sample (16.4%). Chronic pain was more common among older age groups and was also strongly associated with higher deprivation (Figure 2). Across all ages, chronic pain was recorded for 23.1% in the least deprived areas compared with 39.4% in the most deprived areas. This highlights how patient needs may vary across different populations. Hypertension and irritable bowel syndrome were the second and third most common long-term conditions observed among those with depression and anxiety.

Figure 2:

People who are older or in areas of higher deprivation are more likely to experience chronic pain

Chronic pain among people with depression and/or anxiety, by age and deprivation level, England



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Source: Health Foundation analysis of health care data from 2016-2018, accessed via CPRD, view code on GitHub • IMD deprivation data was available in quintiles. Low deprivation = least deprived 20% of areas, medium deprivation = least deprived 20-80% of areas, high deprivation = most deprived 20% of areas

The high prevalence of chronic pain among those with depression and/or anxiety has been previously well-characterised and initiatives to improve care provision have been explored. For example, the Health Foundation's Q Lab in partnership with Mind, has collated practical solutions for improving care for people living with both mental health and painful conditions.



## 5. Primary care use: consultation and prescribing patterns

As expected, people with more long-term conditions had higher levels of primary care consultations (Figure 3). People with no additional conditions had a median of 4.3 consultations per year, as compared with 11.5 consultations for those with three or more additional conditions. We found no evidence of an association with deprivation and the number of primary care consultations.

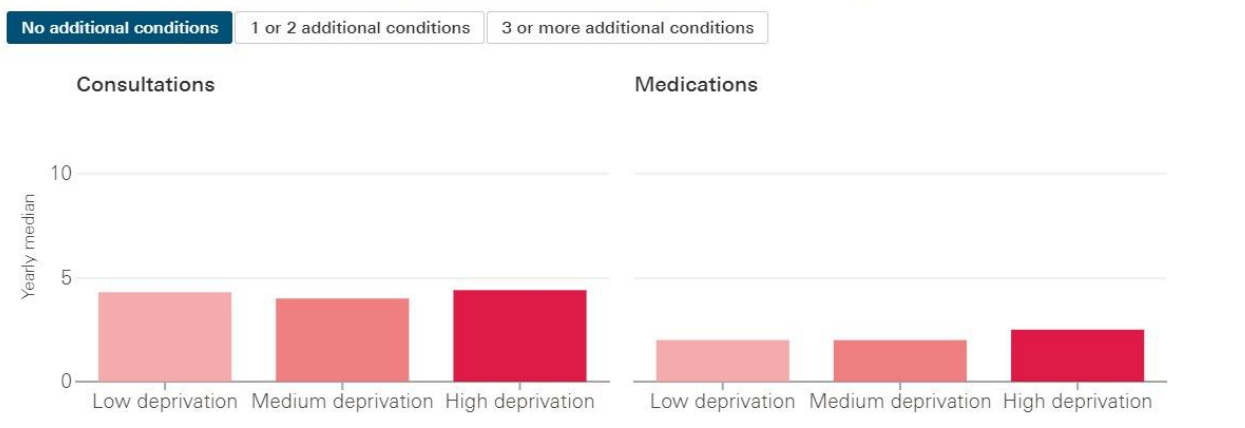
Prescribing was also associated with the number of long-term conditions. People with no additional conditions were prescribed a median of 2.0 different medications per year, while those with three or more additional conditions were prescribed 10.0 medications. Moreover, there was also an association with level of deprivation. For example, those with three or more additional long-term conditions were prescribed a median of 9.0 different medications per year in the least deprived areas compared with 11.3 in the most deprived areas. Higher levels of prescribing in more deprived areas may be linked to variation in the severity of long-term conditions or access to other treatments. We have shown previously that access to IAPT services is lower in more deprived areas.

The increase in prescribed medications in more deprived areas, without a similar increase in the number of general practice consultations, may suggest that consultations are not matching need in these more deprived areas (and is consistent with similar research looking at length of consultation).

Figure 3:

### Deprivation is associated with increases in medications but not consultations in primary care

Median number primary care consultations and medications prescribed for people with depression and/or anxiety, per year, by number of additional long-term conditions and deprivation level, England



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Source: Health Foundation analysis of health care data from 2016-2018, accessed via CPRD, view code on GitHub • IMD deprivation data was available in quintiles. Low deprivation = least deprived 20% of areas, medium deprivation = least deprived 20-80% of areas, high deprivation = most deprived 20% of areas  
\* Value for upper quartile for consultations among people with 1 or 2 additional conditions in high deprivation areas rounded to the nearest 0.2 to ensure all reported values based at least 5 observations

The frequency of primary care consultations rises for people with more long-term conditions (as expected), while level of deprivation shows no impact here. The increase in prescribed medications in more deprived areas, without a similar increase in the number of general practice consultations, may suggest that consultations are not matching need in these more deprived areas.

## 6. Mental health prescriptions

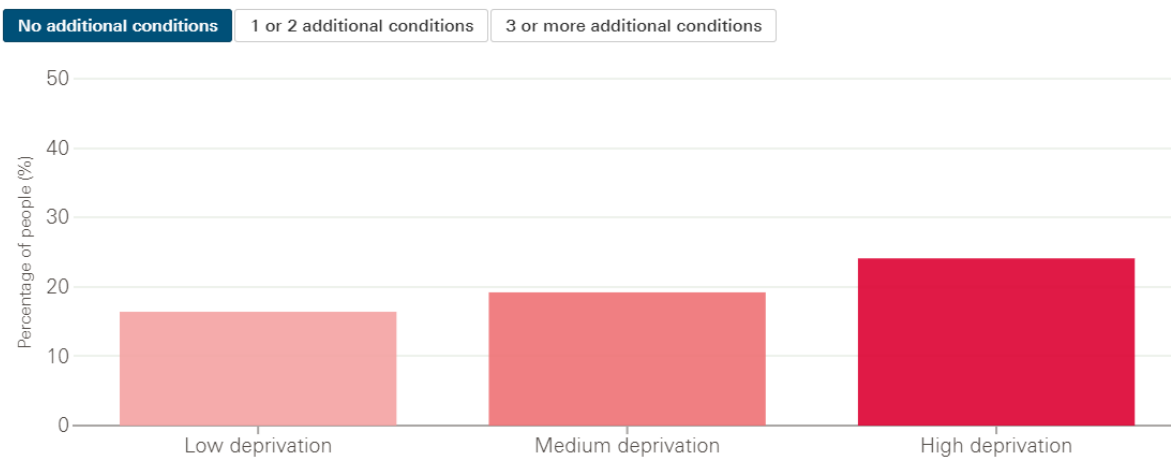
We also considered primary care prescribing patterns specifically related to mental health. For people who take medication for their depression and/or anxiety, the prescription of more than one psychotropic medication may indicate more complex health care needs, such as an inadequate treatment response or poorly tolerated side effects. In our sample, just under 20% of people with no additional conditions had been prescribed more than one psychotropic drug, compared with over a third of people with three or more other long-term conditions (Figure 4). People in more deprived areas were also more often prescribed more than one psychotropic drug. In the least deprived areas, 30% of people with three or more additional conditions were prescribed more than one psychotropic drug, but this rose to 42% for people in the most deprived areas.

This suggests that both long-term conditions and higher levels of deprivation are associated with more complex mental health care needs, again at odds with the pattern we see for primary care consultations.

**Figure 4:**

More complex mental health prescribing is seen for people in areas of high deprivation and with more long-term conditions

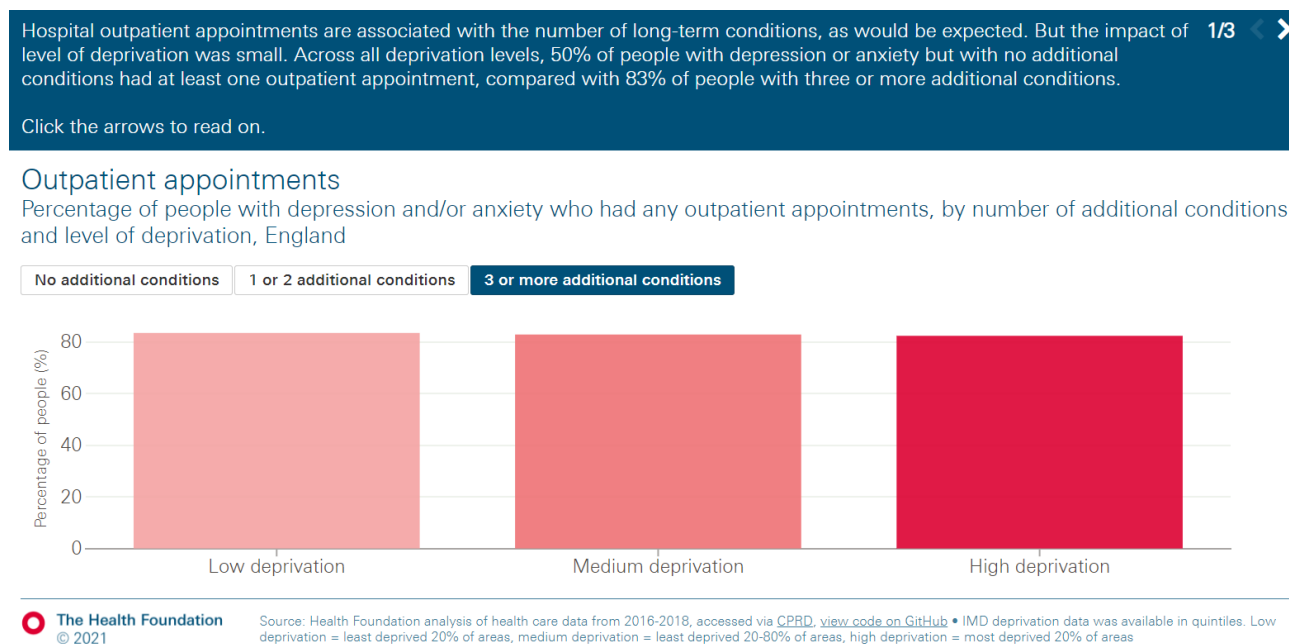
The percentage of people with depression and/or anxiety who received prescriptions for more than one type of psychotropic medication, by number of additional conditions and level of deprivation, England



## 7. Secondary care use: outpatient, inpatient and emergency care

Across outpatient appointments, admissions and A&E, additional long-term conditions were associated with increasing secondary care use. 63% of patients with depression and/or anxiety but with no other conditions received some form of secondary care. For those with three or more additional long-term conditions, this figure was 90%. But differences by level of deprivation were small – 75% of patients in the least deprived areas, compared with 79% in the most deprived areas, had received some form of secondary care. Figure 5 shows the values by secondary care type.

Figure 5:



(This chart is best viewed on the web version of this long read, where you will find the full data visualisation)

These patterns indicate that higher levels of deprivation are associated with increased unplanned rather than planned secondary care use. This may suggest inequity in access to planned secondary care use for those in deprived areas. Further interrogation is needed to understand whether this reflects treatment seeking behaviour or differences in the availability or suitability of care. Either way it is concerning that people in more deprived areas are using more unplanned care but not more planned care than people in less deprived areas. Further investigation is also required to ensure services are meeting the needs of those patients with the greatest need.

## 8. Patterns of secondary mental health care use

The use of secondary health care for mental health-related reasons is rare for people with depression and/or anxiety. Reasons for doing so might include non-response to mental health treatment, concerns about suicidality, risk of harm to others, or additional mental health issues occurring alongside anxiety or depression. Less than 6% of people in our sample used any form of secondary mental health care. But we again saw a disconnect between the impact of deprivation on patterns for using planned as compared with unplanned secondary mental health care.

Mental health-related outpatient appointments (where the treatment specialty was defined as psychiatric) were patterned with the number of additional long-term conditions but not level of deprivation. But the percentage of patients with at least one mental health-related hospital admission (where the primary diagnosis was psychiatric in nature) was 1.2% in the least deprived areas, half of that seen in the most deprived areas (2.4%). A similar pattern is also seen for mental health related A&E attendances (defined as those where either the primary diagnosis was psychiatric in nature or the patient group was self-harm related), with 1.1% having at least one attendance in the least deprived areas, but 3.3% in the most deprived. This indicates those living in more deprived areas were likely to have more severe or complex mental health needs, but less likely to use planned secondary mental health care.

## 9. What do these data tell us?

Our analysis highlights the impact of both additional long-term conditions and deprivation on people with depression and/or anxiety. We find a higher proportion of people with long-term conditions, more complex prescribing and higher rates of unplanned care use among people with depression and/or anxiety living in more deprived areas. However, rates of primary care consultation and planned secondary health care are not higher in more deprived areas than less deprived areas. This suggests people with more complex needs in more deprived areas may not be using the most appropriate care.

There are a number of potential reasons for this. Barriers to the most appropriate care may include the availability of services (for example long waiting times), their suitability for patients (for example based in locations that are difficult to reach by public transport), or treatment-seeking behaviours (for example expectations around the efficacy of treatment). Designing services that tackle these barriers to the most appropriate health care is key to addressing these inequalities.

This analysis used data from before the pandemic, yet COVID-19 is forecast to have a substantial impact on the mental health of the population, which could disproportionately affect certain groups including those with long-term health conditions and those living in more deprived areas of the UK. It is important that we understand the health care use of these populations as pre-existing disparities are likely to be exacerbated by the pandemic. Early evidence of the pandemic's impact indicates significant issues in accessing mental health services and a sharp rise in the number of patients needing emergency mental health care for services that were already lacking resources. We know that patients with long-term conditions have faced particular issues around accessing health care. As services plan how to tackle these challenges, support is needed to ensure they can deliver health care to those that need it most.

### Supporting health care services within the areas of greatest need

A number of factors suggest a strong rationale for targeting more support towards primary care services in more deprived areas. Much of the health care supporting people with depression and/or anxiety is delivered via primary care and those living in the most deprived areas have more additional conditions. Greater investment in primary care in these areas may help to reduce the higher rates of emergency care that we observed, including mental-health related A&E attendances. Further, the number of patients per GP is 15% higher in the most deprived tenth of clinical commissioning groups than in the least deprived tenth. The known shortage of GPs, especially in more deprived areas, presents a real challenge to providing care impacting both access to and quality of care. The time that GPs can spend with their patients is shorter in more deprived areas meaning there is lesser opportunity to engage patients in conversations around strategies for managing multiple conditions as recommended in clinical guidelines. An additional challenge revealed in recent Health Foundation

analysis is that these areas are more likely to have GPs who are themselves at high risk of serious illness from COVID-19, and may need additional support to provide core services.

In addition to these pressures, treatments for depression and anxiety are less accessible and effective in deprived areas. Over 1 million people begin treatment via IAPT services per year, but despite higher referral rates, access and symptom improvement rates show systemic disadvantage among those in more socioeconomically deprived areas. The COVID-19 pandemic may worsen challenges in access to psychological therapies. Early analysis indicates that there were substantial reductions in the number of patients able to access IAPT services during the national lockdown. There will be a likely backlog among already overstretched services that will be critical to address going forward.

## Person-centred service configuration

Though the NHS long term plan acknowledged the need for greater integration of physical and mental health care, current service configurations can mean that patients with more than one condition often have each treated separately, requiring them to manage multiple appointments across multiple clinical services. This analysis shows that the treatment burden can be greater for people with more conditions, especially if patients are living in more deprived circumstances. Here, we have not considered the chronology of conditions, but previous evidence indicates that mental health may be an important precursor to a cascade of physical health conditions, and that early intervention could be an effective strategy for reducing inequalities. Integrated care approaches tackling mental, physical and social needs, such as the 3DLTC or IMPARTS programmes, can be impactful, and may facilitate earlier interventions for patients by considering all of their health needs. But there is still a lack of widespread accessible solutions for patients living with multiple conditions.

The shift to remote consultations for many health care services in response to the pandemic may have reduced the burden of travelling to multiple health care appointments for some patients with multiple conditions. However, it is critical to ensure that this rapid adoption of remote care delivery is appropriate for all. For example, our data show that 13.6% of all patients with depression or anxiety have hearing loss, which may make clear communication in a remote consultation more challenging. Work is needed to identify groups who may be excluded by this transition and to put quality improvement approaches in place that tackle these barriers to access.

## 10. Conclusions

The majority of people with depression and/or anxiety have at least one additional long-term condition. We have highlighted how the prevalence of these additional conditions is patterned with deprivation, and the impact of both of these factors on health care use. The COVID-19 pandemic is likely to lead to increased demand on already stretched mental health services. This analysis of health care patterns prior to the pandemic not only gives insight into typical health care use for those with depression and/or anxiety, but also indicates potential areas of unmet or under met need. It is important that the full health care needs of these patients, and their over-representation in areas of high deprivation, are recognised and prioritised. Holistic care to support people with both mental and physical long-term conditions must be targeted at those in most need in order to address and avoid exacerbating existing health inequalities.



## 11. Acknowledgement

This work uses de-identified data provided by patients and collected by the NHS as part of their care.