HM Government

Analysis of the health, economic and social effects of COVID-19 and the approach to tiering

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Executive Summary

Over the course of this year much has been learned about COVID-19 and the measures it is necessary to take to combat it. This paper sets out some of that learning as well as the evidence and rationale behind the tiered approach.

The impacts of COVID-19 to date have been significant on health, the economy and society. As with many other diseases, COVID-19 has a more severe impact on vulnerable groups, including older people, people with disabilities, ethnic minorities and those living in deprived areas. Allowing the virus to grow exponentially would lead to impacts, in terms of loss of life and ill health, that would be considered intolerable for society.

However, the nuances of how to tackle the virus are not straightforward and the interventions themselves do not have straightforward effects. There is evidence the pandemic can affect health and wellbeing in many ways: from our care systems to the amount of exercise we do; from our mental health to the quality of the air that we breathe. Any response that is taken by Government, therefore, should seek to balance the many complex impacts and keep restrictions on economic and social activity in place for as short a time as possible. A tiered system that allows for local areas to move both up and down is designed to ensure that the most severe restrictions are focused in the areas they are needed, for the shortest period necessary.

There were an estimated 633,000 people with COVID-19 in the community in England in the week ending 21 November and prevalence remains high throughout much of the

country. The introduction of tiers in October was associated with a slowing of infections in many areas and a reduction in some, but overall growth in cases and hospital admissions remained positive and it was necessary to move to national restrictions on 5 November to ensure that growth was reversed and prevalence started to fall nationwide. The introduction of a new, strengthened tier system is designed to keep R below 1 so that prevalence continues to fall, the significant impacts of the virus are reduced, and so that, ultimately, fewer restrictions are required.

There are, of course, significant costs associated with getting the virus in check, for individuals, society and the economy. These have been taken into account when designing the tiers. For example, we know that closing schools has a significant impact on educational outcomes, as well on parents' ability to work, so keeping education settings open in all tiers has now been prioritised.

While it is not possible to forecast the precise economic impact of a specific change to a specific restriction with confidence, it is clear that restrictions to contain COVID-19 have had major impacts on the economy and public finances. The Office for Budget Responsibility (OBR) has recently published its economic and fiscal outlook, which includes scenarios designed to illustrate a range of plausible outcomes. In its central forecast, in which restrictions vary regionally and over time but are broadly the same as remaining at the equivalent of England's pre-lockdown tier 3 until the spring, real GDP falls by 11.3% in 2020, reaches its pre-virus peak by Q4 2022 and unemployment reaches 7.5%. To the extent that average restrictions in the UK are stricter than this, the short-term economic costs are likely to be greater, and vice versa.

However, the alternative of allowing COVID-19 to grow exponentially is much worse for public health. We know from experience that without strong measures R is likely to be significantly higher than 1, leading to a rapid expansion in cases, hospitalisations and deaths.

At the outset of the most difficult time of year for the NHS, and with hospital admissions already high, a sustained period with R above 1 would result in hospitals rapidly becoming overwhelmed. This could lead to many more COVID-19 and non-COVID-19 deaths that would have been preventable were the NHS to remain within its bed capacity. Cancellations to non-emergency and elective care would also result in loss of lives and years of healthy life. It is particularly important to consider this eventuality during the winter months, when the NHS is under additional non-COVID-19 winter pressures, so in comparison to the spring and summer periods, action to prevent the NHS being overwhelmed is even more critical.

A stable and fully functioning health system is one of the pillars that underpins our society and our economy. The Government's view is that the severe loss of life and other health impacts of allowing the NHS to be overwhelmed would be intolerable for our society.

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1. Current situation

1.1 On 2 December 2020 the current national COVID-19 restrictions will be lifted and replaced with the COVID-19 Winter Plan. This involves England moving back into a regional, tiered approach, with measures based on several criteria including case detection rates, how cases are changing and pressure on the NHS.

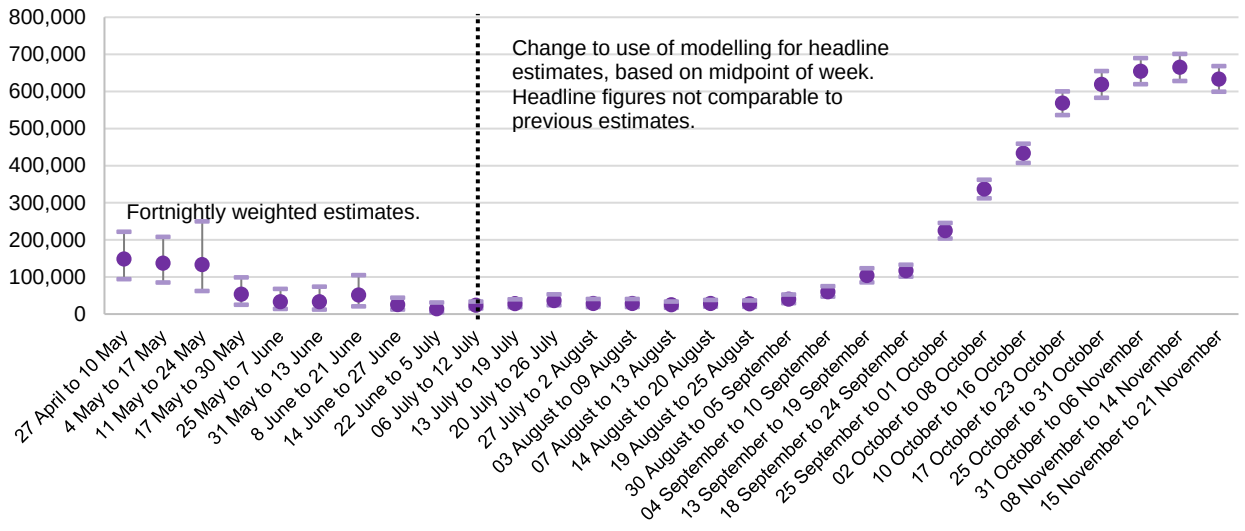
1.2 Where possible, this document uses data from England to align to the coverage of the tiers, although in some cases wider UK data is provided.

1.3 ONS data (Figure 1) shows that the estimated number of people testing positive for COVID-19 increased rapidly between September and November from 59,800 in the first week of September to 633,000 mid-way through November. Deaths involving COVID-19 in England have also risen, from 74 in the first week of September to 2,274 by the week ending 13 November.

1.4 As of 27 November, the latest estimate of the reproduction number, R, for England is between 0.9 and 1.0 suggesting that the average number of new infections is starting to fall.[1] Data from the Office of National Statistics (ONS) COVID-19 infection survey for the most recent week of the study (15 November – 21 November)[2] estimates that an average of 633,000 people had COVID-19 in the community in England, around 1 in 85 people. This was 664,700 in the previous week (around 1 in 80 people).

[1] GOV.UK (2020). The R number in the UK.
[2] ONS (2020). Coronavirus (COVID-19) Infection Survey.

Figure 1 - Estimated number of people testing positive for COVID-19, England



Source: ONS COVID-19 Infection survey, 26 November 2020

1.5 Although case rates have been starting to fall, the number of confirmed cases across all regions in England remains high (Table 1). There is some variation between regions.

Table 1 - Data for positive cases with specimen dates between 13 November and 19 November, England

Area	**Individuals tested per day per 100,000 population (7 day moving average)**	**Percentage individuals test positive (weekly)**	**Case rate per 100,000 population (weekly)**	**Case rate per 100,000 population aged 60 years and over (weekly)**	**Case rate per 100,000 population aged 17-21-year olds (weekly)**	**Confirmed cases in previous 7 days**
East Midlands	425 ↓	10% ↓	275 ↓	225 ↓	317 ↓	13,297
East of England	386 ↑	6% ↓	141 ↓	89 ↓	221 ↓	9,149
London	328 ↓	9% ↑	187 ↓	143 ↑	272 ↓	16,799
North East	453 ↓	12% ↓	336 ↓	265 ↓	366 ↓	8,974
North West	557 ↓	8% ↓	255 ↓	201 ↓	259 ↓	18,698
South East	421 ↑	6% ↓	170 ↓	119 ↓	244 ↓	15,177
South West	428 ↑	6% ↓	164 ↓	101 ↓	274 ↓	9,206
West Midlands	461 ↑	11% ↓	317 ↓	244 ↓	377 ↓	18,825
Yorks & Humber	441 ↓	12% ↓	339 ↓	266 ↓	366 ↓	18,629
England	**440** ↓	**8%** ↓	**230** ↓	**173** ↓	**293** ↓	**129,610**

Source: PHE, NHS Test and Trace. Coronavirus England Briefing Situation Report, 26 November 2020
Note: Arrows demonstrate how figures compare to the equivalent figures as of 12 November 2020

2. The impacts of COVID-19 to date

Health impacts

2.1 From the outset of the pandemic, the Government has been aware of the importance of a wide range of societal health impacts, in terms of deaths and morbidity, associated with the COVID-19 situation. These impacts go beyond the direct effects of COVID-19. They include the potential for further COVID-19 impacts in the event of a lack of NHS critical care capacity, impacts to other health and care services due to changes in those sectors and population health effects, both from the virus and social distancing measures and its economic consequences.

2.2 Analysis by the Department of Health and Social Care, ONS, the Government Actuary's Department, and Home Office in a September 2020 paper endorsed by the Scientific Advisory Group for Emergencies (SAGE)[3] breaks the excess deaths (where excess deaths are defined as the number of deaths in 2020 above the previous five-year average) and health impacts from the pandemic into four categories.

Box 1 - The four categories of potential COVID-19 health impact

The four categories of potential COVID-19 health impact

A. Health impacts from contracting COVID-19
B. Health impacts from COVID-19 worsened in the event of a lack of NHS critical care capacity
C. Health impacts from changes to health and social care made to respond to COVID-19, such as changes to emergency care, changes to adult social care, changes to elective care and changes to primary and community care
D. Health impacts from factors affecting the wider population, both from social distancing measures and due to economic impacts increasing deprivation

Source: DHSC, ONS, GAD, Home Office. Direct and Indirect Impacts of COVID-19 on Excess Deaths and Morbidity

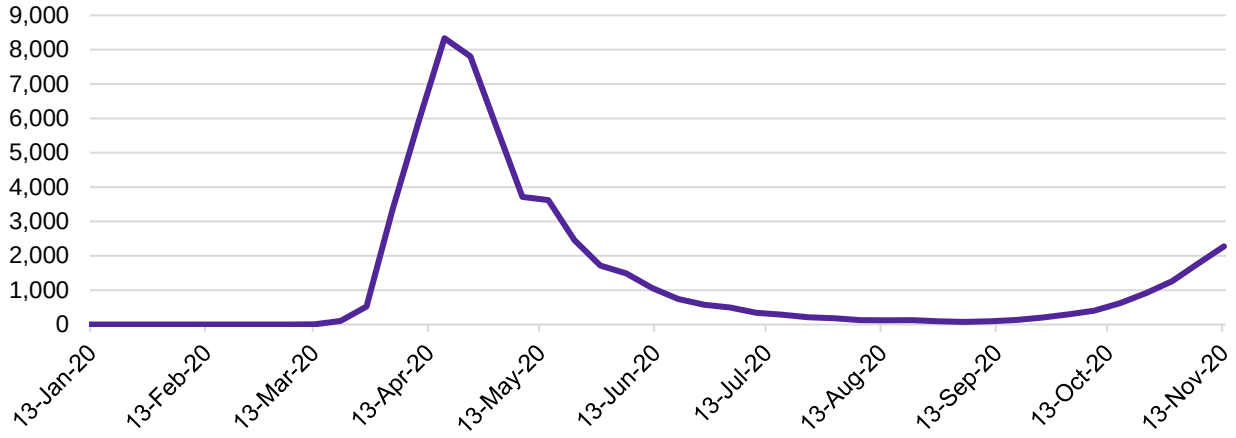
2.3 The Government monitors impacts in respect of these categories and seeks to deliver public health policy that maximises overall health outcomes across these elements. The following sections provide a very brief overview of the evidence, with further detail provided in Annex A.

[3] DHSC, ONS, GAD and Home Office (2020). Direct and Indirect Impacts of COVID-19 on Excess Deaths and Morbidity

Direct health impacts from COVID-19

2.4 There have been 57,147 registered deaths involving COVID-19 in England as of 13 November 2020,[4] and the total additional deaths relative to the five-year average between the week ending 13 March and the week ending 13 November (including those from COVID-19) is around 63,000.[5,6] These deaths have occurred with mitigations in place throughout the pandemic, without which they would have been much higher.

Figure 2 - Weekly deaths involving COVID-19, all ages, England



Source: ONS, Weekly provisional figures on deaths registered in England, Week ending 13 November

2.5 Hospitalisations for COVID-19 were high at the beginning of the pandemic, and rates have again increased in recent months, to a daily average of 1,352 in the seven days leading up to 25 November.[7]

2.6 The direct costs come not only from deaths and the immediate effects of COVID-19. Many people who have earlier contracted COVID-19 continue to suffer from a variety of symptoms, commonly referred to as 'long COVID-19'.[8]

2.7 In terms of deaths, outcomes and infections from COVID-19, there have been significant inequalities between different groups (see Annex A for further detail):

[4] ONS (2020). Weekly provisional figures on deaths registered in England, Week ending 13 November
[5] ONS (2020). Death registrations and occurrences by local authority and health board
[6] ONS (2020). Five-year average weekly deaths by local authority and place of occurrence
[7] GOV.UK, (2020). Coronavirus (COVID-19) in the UK
[8] BMJ, (2020). COVID-19: What do we know about "long COVID-19?"

- Of people with a positive test, those aged 80+, when compared to those under 40, were seventy times more likely to die.[9] However, the health impacts of COVID-19, including 'long COVID-19', can have a significant impact on younger age groups.

- The mortality rate in England and Wales has been highest among those of Black African ethnic background and lowest among those of White ethnic background.[10]

- Around 55% of deaths in England and Wales have been males.

- The COVID-19 Symptom Study also suggests that older people, those with a higher body mass index (BMI), younger women, and those with asthma may be more likely to get 'long COVID-19'.[11]

- Outcomes have been worse in deprived communities.

Indirect health impacts

2.8 Non-COVID-19 deaths have been close to the five-year average during 2020. During the first wave of COVID-19, between week ending 3 April and week ending 1 May, non-COVID-19 deaths were around 12,600 above the five-year average but they have been below average in other parts of the year.

2.9 There have been some impacts on the health system, but the Government has taken action to seek to minimise these. There has been a fall in total emergency admissions since the onset of the pandemic.[12] Particularly early in the pandemic, some of these lower admissions may have been due to people's reticence to attend A&E and other NHS services. The Government and NHS have emphasised the importance of continuing to seek NHS treatment when needed, and since the summer the NHS has continued to provide full non-COVID-19 treatment in all areas except those where case rates are highest.

2.10 There has also been a reduction in non-emergency procedures, as the NHS halted some elective activity to free capacity to deal with the first wave of COVID-19.

[9] PHE (2020). Disparities in the risk and outcomes of COVID-19
[10] ONS (2020). Updating ethnic contrasts in deaths involving Coronavirus (COVID-19), England and Wales.
[11] COVID-19 Symptom Study (2020). One in 20 people likely to suffer from 'long COVID-19', but who are they?
[12] NHS England (2020). A&E waiting times and Activity

Major efforts have since been made to resume this activity, supported by action to control COVID-19, to minimise the negative health consequences. In the second wave, the NHS has sought to maintain elective surgery, only pausing it in those trusts where this is absolutely necessary. Non-emergency admissions are still lower than in 2019,[13] which reflects both the continued use of resources on COVID-19 and the importance of running hospitals in a COVID-19-safe way.

2.11 GP appointments have also changed during the pandemic. Earlier in the year, the number of appointments made fell drastically. They have since recovered and, compared to 2019, a larger proportion are now via telemedicine[14], a form of engagement that is supported by a majority of people in England.[15]

2.12 In terms of immediate impacts of social distancing, there have been a range of health effects, some positive and some negative. For example:

- ONS data indicates a sharp increase in anxiety rates in March 2020 as the pandemic spread, but these have subsequently fallen.[16]
- There was a 7.1% decrease in 'active' adults from mid-March to mid-May 2020 compared to the same period in 2019.[17] This improved subsequently, particularly when people have been able to access gyms and group exercise.
- Air pollution, a major source of ill health, has improved considerably during 2020.[18] Reduced vehicle traffic may also bring benefits from fewer accidents.

2.13 These and other effects are discussed further in Annex A.

Economic and sectoral impacts, including up to the November restrictions

2.14 COVID-19 and the restrictions needed to contain it have had a significant impact on the economy. To inform its decision making, the Government brings together

[13] NHS Digital (2020). Hospital episode statistics for admitted patient care, outpatient and accident and emergency data: April 2020 to September 2020
[14] NHS Digital (2020). Appointments in General Practice September 2020
[15] YouGov (2020). How Brits feel about getting medical advice from a doctor via video link rather than in person
[16] ONS (2020). Personal and economic wellbeing in Great Britain: September 2020.
[17] Sport England (2020). Active lives Adult Survey: Mid-March to mid- May 2020.
[18] DEFRA (2020) Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK

the timeliest and most relevant information on health, society and the economy. For the economy this includes bringing together economic data published by the Office for National Statistics (ONS), the forecasts and projections prepared by the Office for Budget Responsibility (OBR), the Bank of England and others, academic literature and real-time information such as mobility data. This provides the Government with an analytical base for considering economic impacts. However, due to the range of factors that need to be considered, and that in many cases are difficult to estimate – including how the virus would have evolved in different scenarios – any attempt to estimate the specific economic impacts of precise changes to individual restrictions for a defined period of time would be subject to such wide uncertainty as to not be meaningful for precise policy making.

2.15 For example, there are several factors which will determine the short and long-term economic impacts of restrictions:

- The path of the virus in the UK, including the effectiveness of and compliance with restrictions across the four nations.
- The proportion of the country under certain restrictions, and how that proportion changes over time.
- The behaviour of consumers and businesses in response to the virus and restrictions, including the overall change in consumption and investment; displacement to other sectors; and how changed activity in one sector affects another.
- The path of the virus globally and the approach to restrictions in other countries.
- The restrictions needed in spring, and the effectiveness and rollout of community testing and vaccination.

2.16 To understand the economic effects of changes in restrictions also requires knowledge of what would have happened to the path of the virus and the economy with different restrictions, or no restrictions. However, the unprecedented nature of both the virus and the restrictions required to mitigate it, and the complex interactions between the two, mean it is not possible to know what would have otherwise happened. Any assessment of a given change to restrictions is therefore unavoidably only partial in nature.

2.17 The Government published in the 2020 Spending Review (25 November) an overview of the economic impact of the virus to date, together with the actions taken to mitigate it. The below expands on this assessment.

2.18 The restrictions put in place by the Government and the Devolved Administrations to control Covid-19 have all had a significant impact on the economy.

2.19 The ONS estimates that Gross Domestic Product (GDP) in April – the first full month of the previous national restrictions – was around 25% below the level recorded in February. Economic growth started to pick up in May, but the level of output remained 8.2% lower in September than in February.

2.20 The sectors most affected by the March lockdown and subsequent tiering restrictions are those dependent on social consumption, particularly hospitality and leisure. Reflecting this, the accommodation and food sector and the arts, entertainment and recreation sector were some of the hardest hit by the restrictions in place in March-July, with accommodation and food services GVA output 91% lower in April and May compared to February; and arts, entertainment and recreation GVA output 47-49% lower in April and May relative to February. The wholesale and retail sector was also significantly affected by those initial restrictions, with output in April falling to 36% below February levels.

2.21 Even as restrictions were lifted, there was not a full recovery in the economy as a whole or in these sectors. For example, by September, accommodation and food and arts, entertainment and recreation GVA remained 24% and 25% lower than February respectively, although there was a faster recovery in wholesale and retail.[19] These sectors were also affected by the tiering system in England in place before the November restrictions, as well as restrictions implemented by the Devolved Administrations. For example, the latest results from the ONS Business Impact of COVID-19 Survey (BICS) suggest that 62% of firms in the food and accommodation sector and 55% of those in the arts, entertainment and recreation sector reported a decrease in turnover of more than 20% as of 1 November.[20]

2.22 There has also been significant disruption to the labour market. In the three months to September 2020, there were 314,000 redundancies, the highest since records began. HMRC data shows that the number of employees fell by 782,000 between March and October 2020. ONS data shows that vacancies have been rising since June but remained 28% down on the year in October. As with output, there have also been particular impacts on the labour market in certain sectors. For example, HMRC estimates suggest that, at peak, 1.65 million were furloughed in accommodation and food services, just over 455,000 in the arts and

[19] ONS (2020). Monthly gross domestic product by gross value added.
[20] ONS (2020). BICS Survey, 19 October – 1 November

entertainment sector, and 1.85 million in the wholesale and retail sector.[21] The largest drop in vacancies was in accommodation and food service activities (down 67% on the year in October) and retail (down 55% on the year).

2.23 The further restrictions in place over October and November across the UK will have had significant additional impacts on the economy and society – although, as the Chancellor set out in his letter to the Treasury Select Committee on 4 November, neither the Government's policy nor the wider environment are the same as in the previous restrictions earlier this year.

2.24 Reflecting this, the OBR's latest central forecast assumes that output will once again fall in November by 7% which "would take the level back to 15 per cent below the pre-virus peak in January, three-fifths the size of the first lockdown". Real-time indicators suggest consumer and business activity declined in the first half of November. GfK's Consumer Confidence release for November (2-13 November) decreased by 2 points to -33, falling to its lowest level since May.[22] UK retail and recreation mobility in the week to 22 November was 23 percentage points lower than in the week before the November restrictions were announced (24-30 October) at, on average, -50% of pre-Covid levels – levels last seen at the end of June – according to Google Mobility.[23] The weighted ONS Business Impact of COVID-19 Survey (BICS) survey (2 - 15 November) showed an increase in businesses that had ceased trading temporarily or permanently to 23% across all sectors (up from 19% in the previous wave) – the highest proportion of non-trading firms since late June.[24]

2.25 These economic impacts, and the measures the Government has put in place to support the economy, have also had major implications for the public finances. The ONS Public Sector Finances release (October 2020) shows that borrowing since the start of the financial year has reached £215bn, while underlying debt has risen by £276bn since the start of the financial year, reaching 100.8% of GDP.

[21] HMRC (2020). Coronavirus Job Retention Scheme statistics
[22] GfK (2020). United Kingdom Consumer Confidence
[23] Google (2020). Covid-19 Community Mobility Reports
[24] ONS (2020). Business Impact of COVID-19 Survey

3. The need for continued action

3.1 In the absence of intervention across the country (whether local tiers or national measures) transmission rates increase rapidly, even with the implementation of measures such as testing, mask wearing, hand washing, social distancing, and COVID-19-secure businesses. During September, such measures remained in place alongside specific interventions in some local areas. While this had an impact on transmission it was not sufficient to reduce R below 1. This resulted in a sustained period where R was above 1 for several weeks, with SAGE estimating on 1 October that R was 1.3-1.6[25] in the UK (1.2-1.6 in England). Without further ongoing intervention when the national restrictions end, all our experience to date indicates that R would again increase to a level that is significantly above 1.

3.2 This sustained period with R above 1 was enough to cause very rapid growth in the epidemic. SAGE estimated on 1 October that in the UK the epidemic was doubling in size every 8 to 14 days, with the potential for faster growth in certain areas. This rapid growth was also reflected in the ONS's Community Infection Survey, which found that 1 in 470 people in England were positive for COVID-19 between 18 September and 24 September (95% credible interval 1 in 540 to 1 in 410), deteriorating to 1 in 240 the following week (credible interval 1 in 270 to 1 in 220).[25]

3.3 Growth in the epidemic was sustained throughout September and October, although the overall growth rates slowed as further measures (such as the initial tiers) were put in place. While growth started to slow or decline in some areas, there appeared to be faster growth in some parts of the country with lower prevalence than in those with higher prevalence. As overall growth in cases and hospital admissions remained positive it was necessary to move to national restrictions on 5 November to ensure that growth was reversed, and prevalence started to fall nationwide.

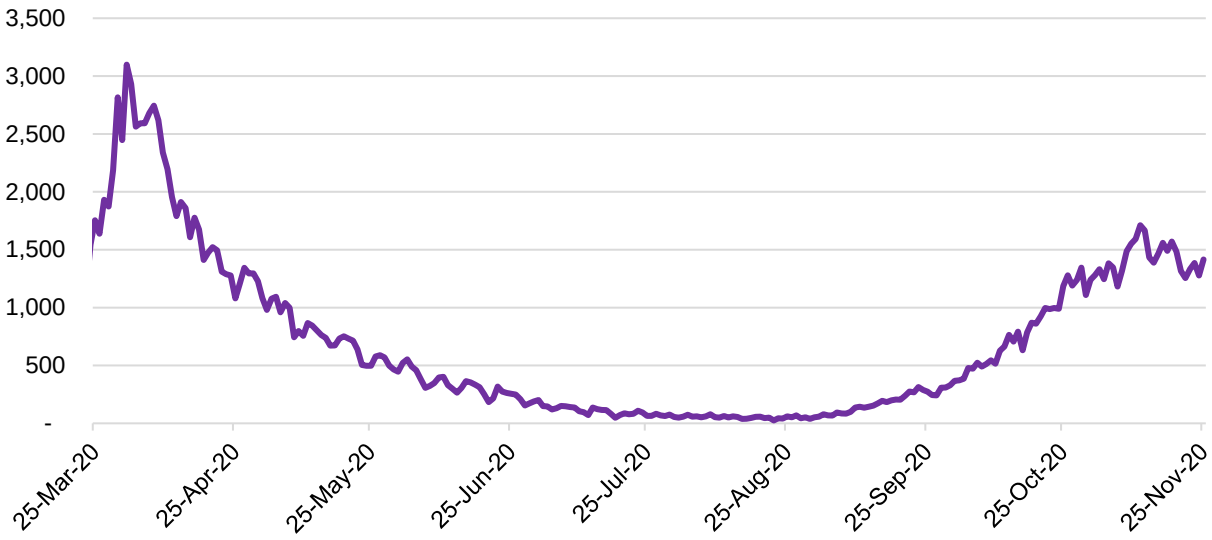
3.4 During this period while R was greater than 1 there was rapid growth in hospital admissions in England, with the 7-day rolling average jumping from 59 on 1 September to 364 to 1 October and to 1,276 on 1 November (Figure 3).

3.5 Correspondingly, hospital bed occupancy due to COVID-19 continued to increase steadily during this period. By the end of October, it was on a trajectory to exceed

[25] SPI-M-O (2020) Consensus Statement on COVID-19

total NHS capacity in England within weeks.[26] While this growth has recently been halted by national interventions, bed occupancy remains much higher than when the previous tiers were introduced.

Figure 3 - Daily number of COVID-19 hospital admissions, England



Source: NHS England, COVID-19 Hospital Activity

Note: people admitted to hospital who tested positive for COVID-19 in the 14 days prior to admission, and those who tested positive in hospital after admission. Inpatients diagnosed with COVID-19 after admission are reported as being admitted on the day prior to their diagnosis. Admissions to all NHS acute hospitals and mental health and learning disability trusts, as well as independent service providers commissioned by the NHS are included. Data are reported daily by trusts to NHS England and NHS Improvement. Reporting dates reflect admissions and new in-patient diagnoses for the previous day. On 21 August a 1-day lag in NHS reporting was corrected.

3.6 A sustained period of exponential growth, with R above 1, will result in hospitals becoming overwhelmed. How quickly this happens depends on both the R number and the prevalence at the start of a period of growth: the risk is much more acute when prevalence is already relatively high. Table 2 shows illustrative doubling times corresponding to different R numbers above 1.

[26] GOV.UK (2020). Slides presented by the Chief Scientific Advisor to accompany coronavirus press conference 31 October 2020

Table 2 - Illustrative COVID-19 doubling times for values of R above 1

R	Doubling time (days)
1.2	20
1.4	11
1.6	8
1.8	7

Note: There is not a precise relationship between R and doubling time as R is a function of the distribution in generation times (the time between one infection and the next) which is uncertain and can vary. Doubling times shown are approximate. In the absence of any interventions at all we would expect an R number that is significantly higher than those illustrated here.

3.7 Daily COVID-19 admissions by the start of November were already over 20 times greater than they were at the start of September. They remain very high, with a seven-day rolling average of 1,352 as of 25 November. As an illustration, it would only take 1 doubling time for admissions to get to 2,704, and 2 doubling times to get to 5,408, significantly greater than the level of admissions seen in early April. Given that, a scenario of the NHS being overwhelmed would occur much more quickly (after fewer doublings) than when starting from the relatively low prevalence seen over the summer.

Health consequences if the NHS were overwhelmed

3.8 It remains the situation that if COVID-19 cases are left unchecked, new critical cases would overwhelm hospital capacity, resulting in COVID-19 deaths and non-COVID-19 deaths that would have been preventable if ventilated bed capacity were available. It is particularly important to consider this eventuality during the winter months, when the NHS is under additional non-COVID-19 winter pressures, so in comparison to the spring and summer periods, action to prevent the NHS being overwhelmed is potentially even more critical.

3.9 Of the patients admitted to intensive care units with COVID-19 before 31 August, 39% died.[27] Between 1 September and 19 November, this fell to 24%, meaning more than three quarters of these patients are able to recover from such serious complications.

3.10 Thankfully, as a result of the social distancing measures taken, NHS surge capacity has not been breached to date, so we do not have data on how many of

[27] Intensive Care National Audit & Research Centre (2020). ICNARC report on COVID-19 in critical care, 20th November 2020

these patients (and those with other critical conditions) would die were they not able to be treated in intensive care. However, it is clear that it would be a much higher proportion.

3.11 The costs in terms of loss of life in such a scenario are considered intolerable for society.

3.12 The precise size and duration of a breach in capacity are not possible to predict as they will depend in part on the extent to which behaviour and policy changes in the face of such an outcome. Even if this occurred for a short period of time, however, the impact would be immediate and significant.

3.13 Previously published Government analysis[28] illustrates how in an unmitigated COVID-19 scenario the number of deaths increases rapidly due to dramatic increases in mortality rates once critical care is no longer available to those who need it. This impact is from COVID-19 deaths alone: it does not include the additional COVID-19 morbidity impacts, or the wider physical and mental health impacts that would result from unavailable care.

3.14 As well as these direct COVID-19 impacts, the disruption to wider NHS business if acute and critical care bed capacity is breached would be severe. Other emergency care patients would be unable to receive the urgent treatment they need, resulting in many further deaths. Cancer screenings may need to be postponed, and thousands of elective procedures cancelled or delayed. Some of these impacts would start to be felt as the NHS approaches capacity. In addition to the immediate costs, cancellations would create longer term challenges and delays from which the NHS would take a significant period of time to recover, jeopardising plans to tackle existing backlogs and future investment plans.

3.15 Box 2 shows the extent of the health care provided by the NHS in any given month. Much of this would not happen in a Health Service that had become overwhelmed by COVID-19.

[28] DHSC, ONS, GAD and Home Office (2020). Direct and Indirect Impacts of COVID-19 on Excess Deaths and Morbidity

Box 2 - Typical monthly activity in the NHS

In a typical month, the *NHS* delivers:

Half a million emergency admissions

49,000 cancer treatments

10,000 hip replacements

7,000 knee replacements

39,000 cataract operations

2 million first outpatient appointments

and **millions** of other treatments

Sources: NHS digital[29],[30]; NHS England[31],[32]

3.16 Given the catastrophic health costs, both from increased COVID-19 deaths and due to the wider impacts across NHS services, the Government is clear that a scenario of the NHS being overwhelmed must be averted, through proportional policy.

3.17 Countries across the world have reached the same conclusion in respect of their own health services. The early experiences of Wuhan and Lombardy showed what could happen if health systems near breaking point, but these were quickly mitigated through very tough restrictions being introduced. More recently, France and Belgium have had to take very strong national action in response to coming close to breaching ICU bed capacity.

3.18 Across Europe, the latest Oxford Covid Government Response Tracker indicates a widespread tightening of restrictions between October and November in response to the second wave, with France, Italy, Ireland, Spain, Germany, Belgium and the Netherlands all having higher stringency scores than the UK.[33]

[29] NHS Digital (2020) Hospital admitted patient care activity 2019-2020.
[30] NHS Digital (2020) Hospital episode statistics for admitted patient care, outpatient and accident and emergency data: April 2020 to September 2020.
[31] NHS England (2020) A&E attendances and admissions 2019-2020.
[32] NHS England (2020) Supplementary information: 31 Day First or Subsequent Cancer Treatments.
[33] "Containment and Health index", Hale, Thomas, Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government. Accessed via Royal Society DELVE

Mental health

3.19 Adverse impacts on mental health would also rise as prevalence of COVID-19 increases. It would be expected that higher rates of post-traumatic stress disorder (PTSD) would be seen amongst health and social care staff,[34] patients who contract COVID-19 (including those hospitalised and in intensive care),[35] and the relatives of those who die.[36] People in the high-risk category may also experience higher levels of worry, PTSD and anxiety due to increased fear of transmission.[37] As WHO and others have noted, "COVID-19 itself can lead to neurological and mental complications, such as delirium, agitation, and stroke".[38]

Economic impacts with no action

3.20 It is not possible to know with any degree of confidence what path the economy would take if restrictions in place were not sufficient to prevent exponential growth or in the absence of restrictions entirely. On the one hand, fewer or no restrictions would allow many people and businesses to operate as normal, if they chose to do so. On the other hand, more widespread infections and the consequences of pressure on the NHS would affect spending in the economy due to voluntary social distancing, effects to confidence and impacts on businesses, including through high levels of employee sickness. Given the unprecedented nature of both the virus and the restrictions that have been required to mitigate it, it is not possible to assess the balance of these effects.

[34] Johnson, S. U., Ebrahimi, O. V., & Hoffart, A. (2020). PTSD symptoms among health workers and public service providers during the COVID-19 outbreak.
[35] Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic.
[36] PTSDUK (2020). The link between COVID-19 and PTSD. Retrieved 24/11/20.
[37] Di Crosta, A., Palumbo, R., Marchetti, D., Ceccato, I., La Malva, P., Maiella, R., ... & Di Domenico, A. (2020). Individual differences, economic stability, and fear of contagion as risk factors for PTSD symptoms in the COVID-19 emergency.
[38] WHO (2020). COVID-19 disrupting mental health services in most countries.

4. The COVID-19 Winter Plan and tiers

4.1 The COVID-19 Winter Plan seeks to ensure that the current national restrictions can be safely lifted on 2 December. On 2 December, across all of England, regardless of tier:

- The stay at home requirement will end, with domestic and international travel being permitted again subject to guidance in each tier.
- Shops, personal care, gyms and the wider leisure sector will reopen.
- Collective worship, weddings and outdoor sports can resume, subject to social distancing.
- People will no longer be limited to seeing only one other person in outdoor public spaces - the rule of 6 will now apply as it did in the previous set of tiers.

4.2 England will move back into a regional tier system. This approach targets the toughest measures only in areas where the virus is most prevalent and which are seeing sharper increases in the rate of infection, while maintaining a geographical scale that is pragmatic and reflects the interconnectedness of our local areas. The previous tier system had an impact on viral transmission, but SAGE advised that stronger measures would be needed in some areas to prevent the epidemic from growing. Some elements of the tier design reflect this:

- In tier 1, the Government will reinforce the importance of working from home wherever possible.
- In tier 2, pubs and bars must close unless they are serving substantial meals (like a full breakfast, main lunchtime or evening meal), along with accompanying drinks.
- In tier 3, all hospitality will close except for delivery, takeaway and drive-through; hotels and other accommodation providers must close (except for specific exemptions, including people staying for work purposes or where they cannot return home); and indoor entertainment venues must also close.

4.3 The Government has also set out its plans for a short period over Christmas where increased social contact will be permitted.

Criteria for the allocation of tiers

4.4 Areas have been allocated to tiers based on the Joint Biosecurity Centre's (JBC) analysis of the following:

- **Indicator 1:** Case detection rates in all age groups.
- **Indicator 2:** Case detection rates in the over 60s.
- **Indicator 3:** The rate at which cases are rising or falling.
- **Indicator 4:** Positivity rate (the number of positive cases detected as a percentage of tests taken).
- **Indicator 5:** Pressure on the NHS, including current and projected occupancy.

4.5 No rigid thresholds have been set because the key indicators need to be viewed in the context of how they interact with each-other as well as the wider context. A framework has been set out to show how areas are allocated. This includes not just the underlying prevalence but also how the spread of the disease is changing in areas. Areas have then been allocated using the following principles. This includes the principle that if an area is not showing an improvement in trajectory of key metrics it remains in tier 3:

Table 3 - Allocation of tiers

Trajectory	**Very High prevalence**	**High prevalence**	**Medium/Low prevalence**
Improving	Remain in tier 3 or de-escalated to tier 2	Remain in tier 2 or de-escalated to tier 1	Remain in tier 1
Stable	Remain in tier 3	Remain in tier 2	Remain in tier 1
Deteriorating	Remain in tier 3	Escalate to tier 3	Escalate to tier 2 or tier 3

Source: Joint Biosecurity Centre

5. Health impacts of tiers

Direct COVID-19 health effects from the introduction of tiers

5.1 As discussed above, the primary policy objective is to ensure COVID-19 remains under control and to bring R below 1, helping to avoid large number of deaths and hospital admissions resulting from COVID-19, and ultimately to avert a disastrous situation where the health system is overwhelmed over the winter period.

5.2 The precise impact of the measures on COVID-19 will depend on a range of factors including the tiers to which local areas are allocated, implementation and public behaviours. SAGE has assessed the impacts of several measures which has helped to inform this package of interventions.[39]

5.3 We also have some evidence from the previous tiering system. The Scientific Pandemic Influenza Modelling group (SPI-M), a subgroup of SAGE, estimated[40] that the initial tier 3 restrictions agreed by local areas in October may have been associated with a reduction in R between a quarter to a half relative to tier 1. SPI-M also estimates that moving from tier 1 to tier 2 was associated with a modest reduction in R. These impacts were sufficient to bring R below 1 in some areas but were not sufficient to stem the continued overall growth across the country.

5.4 Analysis presented to SAGE by its task and finish group[41] looks at the growth in the proportion of positive tests in the wider population (pillar 2) before and after the previous tiers. It shows that during tier 1 restrictions many Lower Tier Local Authorities (LTLAs) still had positive growth rates. During tier 2 restrictions the epidemic in most LTLAs was growing more slowly than before the interventions and was shrinking in many, but many local epidemics were still growing. During tier 3 restrictions, epidemics in all LTLAs had a lower growth rate than before tiers were introduced and the vast majority were declining. The correlation plots in Figures 4a-c show the growth rate before the start of tiers (measured from pillar 2 data from 3-16 October) against the growth rate during tier measures (calculated

[39] SAGE (2020). NPIs Table Pivot
[40] SPI-M (2020). SPI-M-O: statement on tiers in England and other measures in the Devolved Nations
[41] SAGE (2020) The UK's Four Nation's Autumn Interventions

from pillar 2 data from 28 October–10 November) for LTLAs in the previous tiers 1,2 and 3.

Figures 4a-d - Correlation plots showing the growth rate of COVID-19 cases in LTLAs before (x axis) and after (y axis) the introduction of tiers, England

Figure 4a

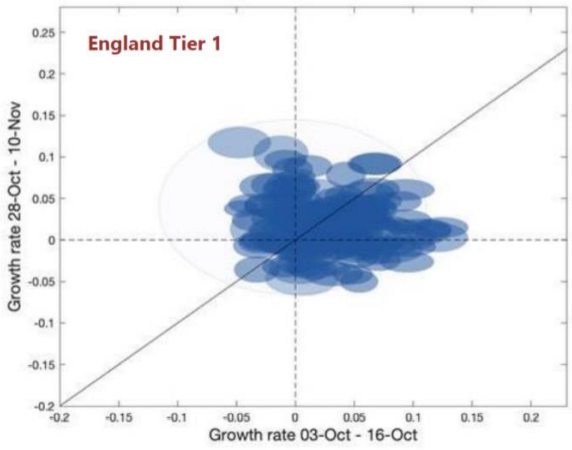


Figure 4b

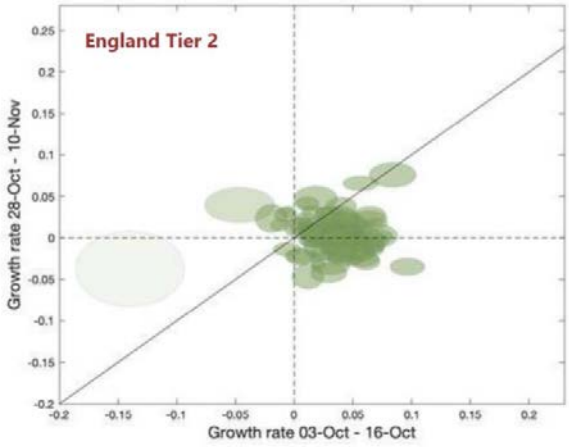


Figure 4c

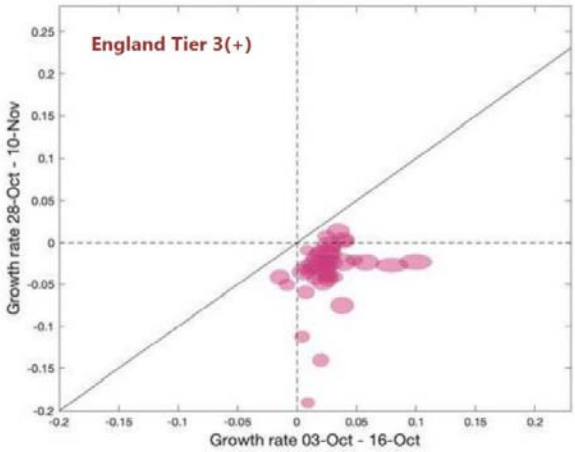
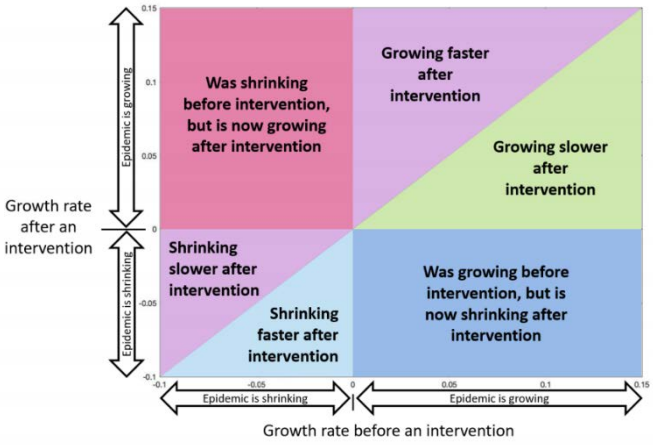


Figure 4d - how to interpret figures 4a-c



Source: SAGE (2020) The UK's Four Nations' Autumn Interventions

5.5 This combined picture of the evidence shows that to be confident that the new tiers will allow us to keep R below 1 and drive prevalence down, they need to be stronger than their predecessors. The new regulations will be more restrictive than the previous tiers in a several regards, though there will also be some relaxations of restrictions, in respect for example of sporting events. It is not possible precisely to predict what will happen to R under the new policy – that is subject to many variables – but we are confident that it will be substantially lower than the counterfactual of no tiering or equivalent measures being in place, thus reducing deaths in the short term as well as reducing the risk of an overwhelming of the National Health Service.

5.6 In order to keep R below 1 it is likely that many areas will initially need the more restrictive measures associated with higher tiers – this may change over time if and as benefits from widespread testing and vaccination are realised.

5.7 Permitting increased social interaction for a short period over Christmas does present a likelihood of an increase in transmission. This may be partly mitigated by the promotion of responsible behaviour and the fact that, over this period, schools and universities are generally closed, with fewer people at work.

Indirect COVID-19 health effects from the introduction of tiers

5.8 Section 2 sets out some of the wider health impacts from COVID-19 on mortality and morbidity in the short-term and longer-term. The introduction of tiers is likely to prevent NHS services being overwhelmed by COVID-19 patients, thus allowing non-COVID-19 patients to continue to receive care while also reassuring the public that it is safe to continue to seek medical care for other conditions relative to a counterfactual without regulations. This constitutes major benefits to health in terms of cancer outcomes, emergency care, social care and elective care.

Wider health impacts, including those associated with non-pharmaceutical interventions

5.9 Tiers are anticipated to reduce mobility relative to a scenario where there are no regulations in place. Evidence from Google Mobility Data from October suggests local areas moving from up the tiers did see a decrease in mobility in the area, with the most significant decreases for local areas moving from tier 2 to tier 3.[42] This may provide some health benefits through lower air pollution, lower transmission of non-COVID-19 infectious diseases, reduced occupational injuries and fewer road injuries. However, it may also give rise to negative impacts on mental health, lower physical activity, increased home accidents and increased musculoskeletal disorders.

5.10 The environmental changes as a result of reduced mobility will also likely reduce the impact of air pollution on health, as suggested by the PHE data for levels of harmful pollutants so far during the pandemic. We anticipate that physical activity

[42] Google (2020) COVID-19 Community Mobility Reports

will be slightly lower under the tiers than has historically been the case, and alcohol consumption slightly higher, giving rise to some negative morbidity and mortality effects. To mitigate this, enabling exercise and keeping gyms open has been prioritised in all tiers.

5.11 With the guidance in the COVID-19 Winter Plan to work from home where possible, it is likely that occupational injuries will be lower than would otherwise be the case, but there may be more musculoskeletal disorders as many home workers will likely have less access to professional ergonomic advice, and will be using ergonomically worse furniture and technology. Home accidents may also be higher due to a greater proportion of time being spent at home.

5.12 Road travel throughout the majority of the pandemic has been below historic levels.[43] With working from home advice and venues closed in higher tiers, the tiers policy is likely to be associated with fewer people being killed or seriously injured in road collisions.

5.13 Influenza and other infections are likely to be lower due to the reduced social interaction associated with the measures. This is supported by the experience of southern hemisphere countries that have just exited a relatively mild winter flu season.[44,45]

5.14 The areas in the different tiers will likely experience different effects on physical health outcomes. The areas in tiers 1 and 2 will see a lower reduction in the mortality and morbidity impacts in comparison to tier 3. However, the direction of movement of these impacts depends on the relative impact of the conditions that experience an increase in prevalence compared to those that see a decrease. For example, an improvement in mental health through increased social contacts may be offset by an increase in road traffic accidents as more travel is permitted.

5.15 The tiered restrictions carry economic consequences, which will be greater for regions in higher tiers. In the long term, this will have impacts on morbidity and mortality of certain long-term conditions, as health worsens with lower incomes and unemployment. A recent paper using Quarterly Labour Force Survey in the UK estimates that a 1% fall in employment is met with an approximately 2%

[43] Department of Transport (2020) Transport use during the coronavirus (COVID-19) pandemic
[44] BMJ (2020) What can the UK learn from the southern hemisphere winter?
[45] Centres for Disease Control and Prevention (2020) Decreased influenza activity during the COVID-19 pandemic - United States, Australia, Chile and South Africa

increase across 5 categories of chronic illness: musculoskeletal, cardiovascular, respiratory, mental health and 'other' conditions.[46] However, set against a counterfactual of R rising above 1, COVID-19 resuming exponential growth, sickness absence increasing and the societal instability that would result from the NHS being overwhelmed, the impact of the tiers on longer term health is less clear.

Mental health impacts

5.16 There is a variety of evidence on mental health, including detailed surveillance reports from Public Health England.[47] There are likely to be some short-term negative mental health impacts associated with restrictions under the tier system. However, it is important to recognise that mental health could be worse in a counterfactual situation of COVID-19 resuming exponential growth, an increase in deaths and major disruption to health and care services.

5.17 The higher the tier, the greater the likely impact on isolation, although care and support bubbles provide some mitigation. It is understood that the need for social interaction may be greater during periods of adversity.[48]

5.18 UCL has tracked stressors throughout the pandemic and found that, as of 9 November, around 1 in 3 people report being worried about finances (up from 1 in 4 over the summer); around 1 in 6 are worried about unemployment; and around 1 in 12 people are worried about access to food.[49] The use of tiers enables more businesses and non-essential shops to stay open, mitigating some of the stresses resulting from finances and unemployment but these issues, and their impact on mental health will persist, particularly in higher tiers.

5.19 There was no significant worsening in Generalised Anxiety Disorder scores, monitored by Public Health England, following the introduction of the 14 October tier system.[50]

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[46] Janke, Katharina, Kevin Lee, Carol Propper, Kalvinder Shields, and Michael Shields. (2020) Macroeconomic Conditions and Health in Britain: Aggregation, Dynamics and Local Area Heterogeneity. Institute of Labor Economics Discussion Paper.

[47] GOV.UK (2020) COVID-19: mental health and wellbeing surveillance report

[48] Usher, K., Bhullar, N., & Jackson, D. (2020). Life in the pandemic: Social isolation and mental health. Journal of Clinical Nursing.

[49] UCL (2020). UCL Social Study Release 25.

[50] PHE (2020). Wider Impacts of COVID-19 Monitoring tool, Public Health England

5.20 The need for clarity and public understanding of the working of tiers (and all handling of the pandemic) is important to maintaining stable rates of anxiety.[51] Where in the tiers there are different rules for different areas, this may contribute to confusion and frustration at differences in restrictions. Permitting greater social interaction in larger 'bubbles' over the Christmas period is intended to support mental health.

Overall health impacts

5.21 As discussed above, the Government seeks to achieve the optimal health outcomes across four categories of impact.

A: Health impacts from contracting COVID-19

B: Health impacts for COVID-19 worsened in the event of a lack of NHS critical care capacity

C: Health impacts from changes to health and social care made in order to respond to COVID-19, such as changes to emergency care, changes to adult social care, changes to elective care and changes to primary and community care.

D: Health impacts from factors affecting the wider population, both from social distancing measures and due to economic impacts increasing deprivation

5.22 This package of measures delivers very high health benefits relative to the counterfactual of COVID-19 resuming exponential growth, both in terms of lives saved and morbidity.

5.23 In keeping cases down and sharply reducing the risks of COVID-19 escalating beyond hospital capacity, the introduction of tiers is considered to deliver very high health benefits in respect of each of Category A, Category B and Category C. The Category D health impacts are likely to be mixed relative to the counterfactual situation.

[51] Durodié, B. (2020). Handling uncertainty and ambiguity in the COVID-19 pandemic.

6. Social impacts of tiers

6.1 The introduction of tiers will have an impact on everybody's lives as a result of reduced mobility and socialising due to the restrictions in place. People will not be able to undertake all the activities they ordinarily would, such as meeting friends and family and other recreation activities.

6.2 The use of bubbling in all tiers, and the ability to meet others outside the bubble in tiers 1 (indoors and outdoors) and tier 2 (outdoors) will go some way to addressing the issues of social isolation and loneliness seen earlier in the pandemic.

6.3 The impacts on crime are unclear. There was a reduction in theft and the overall number of victims of crime during the first national lockdown. Recorded crime flagged as domestic abuse-related increased. Annex A provides further detail.

Education

6.4 Since the summer, the Government's priority has been to ensure that education remains open. The policy in England is that education settings will remain open in all tiers. Children's life chances, as well as the long-term health of the economy, depend upon students continuing to learn and develop vital skills, and adults being able to train and retrain to meet the changing needs of industry and the economy. Educational settings have remained open during the November national restrictions and the Government has committed to delivering a full set of exams in England next summer.

6.5 The Department for Education will update its guidance in the coming days to reflect how settings should operate under the strengthened tier system, and an updated contingency framework in the exceptional circumstances in which further restrictions on education are required in any area. The Government will do everything possible to avoid enacting those contingency measures at any stage.

6.6 The Government has also ensured that schools and colleges have access to COVID-19 tests, with every school provided with an allocation of tests for those staff and students that are not able to access testing via other routes. The Government will continue piloting further rapid testing in schools.

6.7 When it is necessary for children to isolate, schools have a duty to provide high quality remote education; a Direction which places an express legal duty on schools to provide remote education in these circumstances has been in effect since October.

7. Economic impacts of tiers

7.1 On 25 November, the OBR, as the Government's official forecaster, published a comprehensive assessment of how the virus, restrictions and other measures and therefore the economy might evolve. Recognising the very high level of uncertainty which faces the UK economy at this time they set out three scenarios. To construct these scenarios, the OBR have made a series of detailed assumptions about how the virus evolves, the nature of restrictions in place and their effect on the economy. These are subject to a high degree of uncertainty given the unprecedented and evolving nature of COVID-19 and how the assumptions interact.

7.2 These are summarised in Table 4. The scenarios include – among others – assumptions on the impacts of the November restrictions, the level of restrictions in place from 2 December and the potential impacts of revised restrictions to be applied from 2 December.

- In their upside scenario, the November restrictions substantially reduce infection rates by 2 December. After that point, the testing system is combined with a return to tiering which would vary in intensity regionally and over time but be "broadly the same as remaining at the equivalent of England's pre-lockdown tier 2 until the spring". Then "an effective vaccine becomes widely available… permitting a further easing of health restrictions".

- In their central forecast, a more stringent set of public health restrictions are in place over the winter, which may vary regionally and over time but are "broadly the same as remaining at the equivalent of England's pre-lockdown tier 3 until the spring. The arrival of warmer weather than allows an easing of the restrictions. An effective vaccine becomes widely available in the latter half of the year".

- In their downside scenario, more stringent public health measures (varying regionally and over time but "broadly equivalent to somewhere between England's pre-lockdown tier 3 and the November lockdown") are in place throughout the winter. The arrival of spring again permits some easing of restrictions but, unlike in the central scenario, a sufficiently effective vaccine does not become available. Subsequent waves of infection then require further re-imposition of health restrictions.

Table 4 - OBR Virus scenarios, November 2020

Assumptions/forecasts	Upside scenario	Central scenario	Downside scenario
Public health assumptions			
Lockdown ends	2 December	2 December	2 December
Test, trace and isolate	Effective	Partly effective	Ineffective
Public health restrictions: lockdown to vaccine[1]	Medium-low	High-medium	Very high[2]
Vaccines widely available	From Spring 2021	From mid-2021	Ineffective
Economic effects (per cent, unless otherwise stated)			
Real GDP growth in 2020	-10.6	-11.3	-12.0
Return to pre-virus peak (2019Q4)	2021Q4	2022Q4	2024Q4
Peak unemployment rate	5.1	7.5	11.0
Long-term GDP scarring	0.0	3.0	6.0
Fiscal effects (per cent)			
Public sector net borrowing in 2020-21	16.7	19.0	21.7
Public sector net borrowing in 2025-26	1.7	3.9	6.1
Public sector net debt in 2025-26	90.5	104.7	123.1
Budget 2020 fiscal targets			
Current budget balance in 2023-24	Met	Not Met	Not Met
Net investment below 3 per cent of GDP	Met	Met	Not Met
Debt interest to revenue ratio below 6 per cent	Met	Met	Met

[1] Low, medium and high are broadly equivalent to October 2020 tiers 1, 2 and 3 in England. Very high is between October 2020 tier 3 and November 2020 lockdown in England.

[2] Restrictions to ease to low by end of 2021.

Source: OBR, 2020. Economic and Fiscal Outlook

7.3 These reflect a range of plausible scenarios but, due to the uncertainty, the OBR "make no attempt to assign probabilities to any particular outcome" and they note that "ultimately these are judgement-based scenarios". They do not model the precise detail of specific restrictions and quantifying the specific impact of any marginal additional restriction compared to them is difficult to do with any precision. That said, these scenarios provide a broad range of the possible economic outcomes we could expect in the coming months and years.

- In the OBR's upside scenario, real GDP in 2020 falls by 10.6% but recovers to its pre-virus peak by Q4 2021. Unemployment peaks at 5.1% in Q2 2021. There is negligible scarring.

- In the OBR's central forecast, real GDP in 2020 falls by 11.3% but recovers to its pre-virus peak by Q4 2022. Unemployment peaks at 7.5% in Q2 2021.

- In the OBR's downside scenario, real GDP in 2020 falls by 12.0% and doesn't recover to its pre-virus peak until Q4 2024. Unemployment peaks at 11.0% in Q1 2022.

7.4 The OBR forecast and scenarios also set out the possible implications for the public finances. The OBR's estimates of the fiscal implications of each scenario are:

- In the upside scenario, borrowing reaches £353bn in 2020-21. Underlying debt peaks in 2020-21 at 86.0% of GDP.

- In the central forecast, borrowing peaks at £394bn (19.0% of GDP) in 2020-21. Underlying debt rises throughout the forecast, reaching 97.5% of GDP in 2025-26.

- In the downside scenario, borrowing spikes to £440bn in 2020-21. Underlying debt is above 100% of GDP from 2021-22 onwards, rising to 115.7% of GDP in 2025-26.

7.5 These scenarios can be relevant for considering how different approaches to restrictions might influence the path of the economy, although a range of other factors (such as the economic impact of the November lockdown, the effectiveness of test, trace and isolate, and the roll-out of a vaccine) also vary across the OBR scenarios. For example, as set out above, the OBR central forecast assumes that the average level of restrictions in the UK are equivalent to England's pre-lockdown tier 3 as it was before the November restrictions. To the extent that average restrictions proposed by the Government and the Devolved Authorities in the UK are stricter than this, the associated short-term economic costs are likely to be greater than forecast in this scenario. Equally, to the extent that average restrictions proposed by the Government and the Devolved Administrations are less strict than this, the associated short-term economic costs may be less than forecast in this scenario. If the rollout of a vaccine is earlier than expected, then the short-term economic costs may be less than forecast in this scenario, and vice versa.

7.6 Table 5 presents a sectoral path of output consistent with the OBR's central forecast. This estimates that overall output will fall 7% through November, with consumer facing sectors again most affected. For example, accommodation and food services fall 68% below January levels in November and see an overall fall in GDP between January 2020 and March 2021 of 26%.

Table 5 - Short-term sectoral growth

Sector	January to April 2020 change in GDP (per cent)	January to November 2020 change in GDP (per cent)	January 2020 to March 2021 change in GDP (per cent)	Weight in whole economy value added (per cent)
Accommodation and food services	-91	-68	-26	29
Other services	-50	-40	-29	37
Construction	-45	-14	-10	64
Transportation	-40	-22	-17	40
Education	-39	-19	-14	57
Wholesale and retail	-36	-19	-2	104
Administrative and support	-36	-32	-25	53
Human health	-31	-24	-21	75
Manufacturing	-29	-11	-8	101
Professional, scientific and technical	-19	-14	-10	77
Information and communication	-11	-8	-7	66
Agriculture	-8	-4	-2	6
Energy and water	-7	-4	0	38
Finance and insurance	-5	-3	-2	68
Real estate	-2	-2	-2	135
Public admin and defence	0	1	1	49
Total	-26	-15	-10	1000

Source: OBR, 2020. Economic and Fiscal Outlook

7.7 The direct impact on output and employment of any tighter restrictions will be felt most acutely by those consumer-facing sectors. Pre-COVID-19, accommodation and food services accounted for nearly 2.5 million jobs nationally, and arts, entertainment and recreation over 1 million jobs, and accounted for £57.6 billion and £31.3 billion of total UK Gross Value Added (GVA) output respectively. However, the overall economic impacts of additional restrictions compared to the OBR scenario would not simply be the direct effect on the closed sectors. This would depend on a wide range of factors, including the extent of the reduction in spending by those working in the affected sectors, substitution of spending between sectors, the behavioural response by businesses (such as increasing takeaway or delivery services), and any indirect impacts on business and consumer confidence and expectations.

7.8 As set out above, while it is not possible to precisely estimate the economic impacts of any specific restrictions, for individual areas, the direct impacts of the tier they are in will depend on a range of factors, including:

- The extent of GVA accounted for by the sectors directly affected[52]
- The employment accounted for by the sectors directly affected[53]
- The tiering position in neighbouring areas, and the resultant impacts on factors such as supply chains and ability to travel to work[54]
- The vulnerability of the labour market and firms. For example, the ONS Business Impact of COVID-19 Survey (BICS) sets out, on a sectoral basis, the extent to which firms have paused or ceased trading and whether they expect to pause or cease trading. This survey also includes some regional breakdowns.[55]

Longer term impacts on the economy

7.9 Despite the substantive and unprecedented fiscal support given to support public services, households and businesses since March, which the OBR say "should reduce unnecessary job losses and business failures, thus limiting any persistent 'scarring' of the economy's supply capacity",[56] both the central forecast and downside scenario do lead to economic scarring.

7.10 In the central forecast, the UK's economic trajectory is permanently below its pre-virus path, with the level of output 3% lower at the end of their forecast than they expected in March.

7.11 In the downside scenario, the economic impacts of the virus and associated restrictions lead to worse scarring, with the level of output 6% lower at the end of their forecast than they expected in March.

7.12 In the November Economic and Fiscal Outlook, the OBR sets out five main channels through which they expect this scarring to happen:

- Deferred or cancelled investment in physical capital and lower innovation.

[52] ONS (2020). Regional gross value added (balanced) by industry
[53] ONS (2019). Business Register and Employment Survey and Employment Survey (for Great Britain); NISRA (2019). Business Register and Employment Survey (for Northern Ireland)
[54] ONS (2020). Regional labour market: Local indicators for travel-to-work areas
[55] ONS (2020). Business impact of COVID-19 Survey (BICS)
[56] OBR (2020). November Economic and Fiscal Outlook, p. 30.

- The destruction of valuable firm-specific capital and knowledge, due to business failures.
- A loss of human capital due to sustained unemployment and changes to business models away from contact-intensive services.
- Early retirement prompted by the pandemic.
- Increased loss of days worked due to sick leave.[57]

Table 6 - Comparing OBR forecasts pre- and post COVID-19

Forecast	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**
Real GDP Growth (%)	0.3	-12.9	10.4	5.0	1.9	1.7	1.8
Difference from March 2020 EFO (ppts)	-0.8	-14.2	8.7	3.6	0.6	0.2	-
Unemployment Rate (%)	3.9	4.7	7.3	6.2	5.1	4.5	4.4
Difference from March 2020 EFO (ppts)	0	0.8	3.4	2.3	1.1	0.3	-
PSNB (£bn)	56.1	393.5	164.2	104.6	100.4	99.6	101.8
Difference from March 2020 EFO	8.8	338.8	97.6	43.1	40.2	41.7	-
PSND (% of GDP)	85.5	105.2	108.0	108.6	109.4	105.0	104.7
Difference from March 2020 EFO (ppts)	6.0	27.7	33.0	33.1	33.8	29.7	-
PSND ex BoE (% of GDP)	77.1	91.9	93.7	94.9	96.2	96.7	97.5
Difference from March 2020 EFO (ppts)	5.2	20.0	21.4	22.0	23.0	23.8	-

Source: OBR, 2020. Economic and Fiscal Outlook

[57] OBR (2020). November Economic and Fiscal Outlook, p. 30.

8. Summary

8.1 The data and evidence that continues to be accrued on COVID-19, some of which is in this note but much of which is in the wealth of other documents in the public domain, emphasise that COVID-19 has a profound effect on the economy, society and public health.

8.2 The health effects reach far beyond the tragic death and suffering from COVID-19 itself but also come from knock-on implications on other health services, the impacts of restrictions on our mental health and physical wellbeing, the links between the economy, deprivation and health outcomes. In some areas there will have been health benefits, like in reduced air pollution as a result of less travel.

8.3 It is also clear that restrictions to contain COVID-19 have had major impacts on the economy and public finances, even if it is not possible to forecast with confidence the precise impact of a specific change to a specific restriction.

8.4 We know that the health, societal and the economic effects are unevenly distributed, so the Government has taken a range of actions to tackle this. There are key challenges in particular to mitigate the impact on children and young people – especially the disadvantaged. There is clear evidence about the importance of maintaining face-to-face provision in schools. That is why, since the summer, the Government's priority has been to ensure that education remains open. A core element of the COVID-19 Winter Plan in England is that education settings will remain open in all tiers.

8.5 The challenge of balancing the different health and societal impacts, and taking a long-term perspective on these, is not straightforward but the Government has and will continue to pursue the best overall outcomes, continually reviewing the evidence and seeking the best health, scientific and economic advice.

8.6 Within this, there is one property of COVID-19 that has unfortunately been stark throughout: without taking these tough measures across the country to control COVID-19, the reproduction number would move significantly above 1 and transmission would escalate rapidly. We have observed as much over periods where we have tried to relax restrictions, but we are now in a position where hospital admission and occupancy rates are already much higher than in the summer. It is an inescapable fact that exponential growth leads to a situation where the NHS would become overwhelmed and there would be insufficient capacity for those patients must critically in need of it, whether COVID-19 or non-COVID-19 patients. The corresponding cost to society of higher death rates is not one that any Government or country would willingly tolerate.

8.7 Against an alternative of allowing the NHS to be overwhelmed, the introduction of the tiering measures delivers very high health benefits across three of the four categories of health impact (with the fourth being unclear). It is the Government's intention and belief that the situation will finally change during 2021, as vaccines and community testing yield benefits, but until then such measures are considered vital in order to protect the NHS and save lives.

Annex A - Further evidence of health and social impacts of COVID-19

1. This section sets out more detailed analysis of the health and social impacts of COVID-19 to date.

Direct health impacts from COVID-19

2. There have been 57,147 deaths involving COVID-19 in England as of 13 November 2020,[58] and the total additional deaths relative to the five-year average between the week ending 13 March and the week ending 13 November (including those from COVID-19) is around 63,000.

3. Hospitalisations for COVID-19 were high at the beginning of the pandemic, and rates have again increased in recent months, to a daily average of 1,352 in the seven days leading up to 25 November.[59]

4. The direct costs of COVID-19 come not only from deaths, with many people who have previously contracted COVID-19 continuing to suffer from a variety of symptoms commonly referred to as 'long COVID-19'.[60] This generally refers to conditions where people who contracted COVID-19 have either recovered but are experiencing long-term effects of the virus or are experiencing symptoms for longer than originally expected.[61] The COVID-19 symptom study suggests that 14.5% of people with symptomatic COVID-19 would be ill for at least 4 weeks, 5.1% of people would be ill for 8 weeks and 2.2% of people would be ill for 12 weeks or more.[62]

5. The COVID-19 Symptom Study also suggests that older people, those with a higher body mass index (BMI), younger women, and those with asthma may be more likely to get 'long COVID-19'.[63]

[58] ONS (2020). Weekly provisional figures on deaths registered in England, Week ending 13 November
[59] GOV.UK, (2020). Coronavirus (COVID-19) in the UK
[60] BMJ (2020). COVID-19: What do we know about "long COVID-19?".
[61] ibid
[62] COVID-19 Symptom Study (2020). One in 20 people likely to suffer from 'long COVID-19', but who are they?
[63] ibid

6. In terms of deaths, outcomes and infections from COVID-19 there have been significant inequalities between men and women, older people, ethnic groups, geography, occupation and deprivation.

    - Of people with a positive test, those aged 80+, when compared to those under 40, were seventy times more likely to die.[64] People who live in deprived areas have higher diagnosis rates and death rates than those living in less deprived areas. The mortality rates from COVID-19 in the most deprived areas were more than double the least deprived areas, for both men and women. This is greater inequality than seen in mortality rates in previous years, indicating greater inequality in death rates from COVID-19.

    - To date, in England and Wales, around 55% of COVID-19 deaths have been male and 45% female. Of the deaths caused by infections assumed to be caught before the March lockdown, there were 117 deaths per 100,000 men (aged 20-64) and 59.8 deaths per 100,000 women (aged 20-64) in the working population.[65]

Table 7 - Percentage of COVID-19 deaths by age group and sex (total, to week ending 13 November 2020), England and Wales

% of total deaths	Male	Female
85 years and over	19%	22%
75 to 84 years	19%	13%
65 to 74 years	10%	5%
45 to 64 years	6%	3%
15 to 44 years	1%	0%
1 to 14 years	0%	0%
Under 1 year	0%	0%
Total	55%	45%

Source: ONS, Deaths Registered weekly in England and Wales, week ending 13 November 2020

7. The mortality rate has been highest among those of Black African ethnic background and lowest among those of White ethnic background.[66] The risk of death involving

[64] PHE (2020). Disparities in the risk and outcomes of COVID-19

[65] ONS (2020). Coronavirus (COVID-19) related deaths by occupation, before and during lockdown, England and Wales: deaths registered between 9 March and 30 June 2020

[66] ONS (2020). Updating ethnic contrasts in deaths involving Coronavirus (COVID-19), England and Wales.

COVID-19 has been 3.8 times greater for Black African ethnic men and 2.9 times greater for Black African women compared to those of White ethnic background. The risk has also been 3.5, 2.8 and 2.5 times higher for males of Bangladeshi, Black Caribbean and Pakistani backgrounds respectively, and 2.5, 2.2 and 2.6 for females. This varying impact on different groups means the make-up of a local population can be expected to influence the impact of COVID-19 in that area.

8. The number of deaths in England by region registered the week ending 13 November 2020 clearly shows a regional variation. While London was most impacted in the spring/summer, it has recently been the North West.[67]

Table 8 - Total (COVID-19 and non-COVID-19) Deaths by region (Week ending 13 November 2020)

Region name	Number of deaths	Percentage above 5-year average
North West	1,950	37.7
Yorkshire and the Humber	1,350	33.7
North East	711	32.9
East	1,172	6.4
West Midlands	1,317	22.7
East Midlands	1,099	26.5
South East	1,616	2.1
London	1,112	14.3
South West	1,168	6.2

Source: ONS, Deaths Registered weekly in England and Wales, week ending 13 November 2020

9. ONS analysis on deaths by occupation shows that the occupations with the highest exposure to COVID-19 are those involving close proximity to others and where there is regular exposure to the disease.[68]

10. In England, around 73.8% of deaths involving COVID-19 between 9 March and 25 May 2020 in male elementary workers (the occupation group with the highest death rate) were for those living in the most deprived neighbourhoods and the death rate was three times higher for those living in the most deprived quintiles.[69] For women, caring,

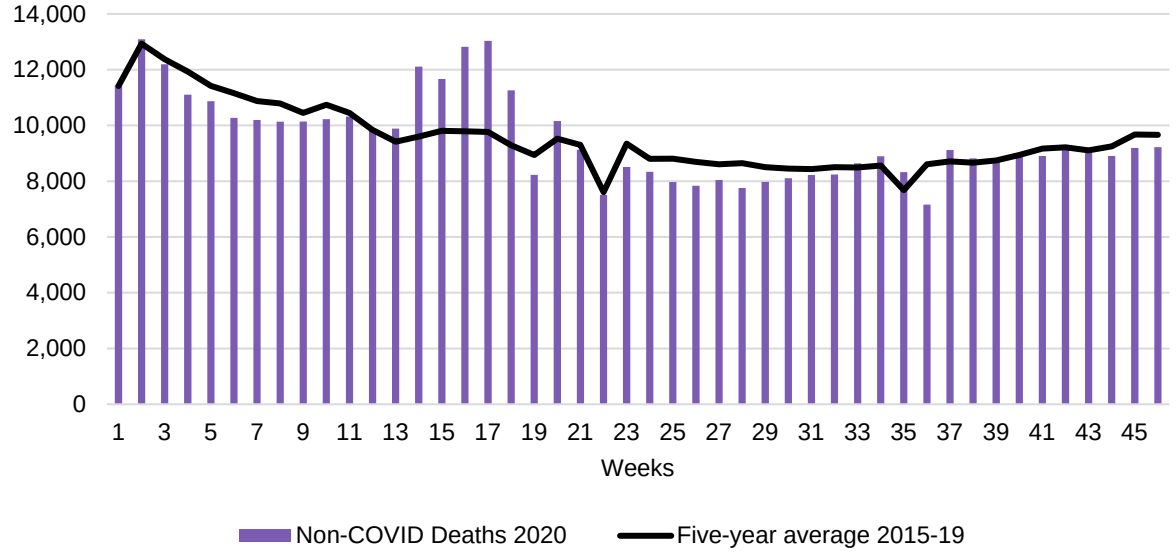
[67] ONS (2020). Weekly provisional figures on deaths registered in England, Week ending 13 November
[68] ONS (2020). Coronavirus (COVID-19) related deaths by occupation, before and during lockdown, England and Wales Coronavirus (COVID-19) related deaths by occupation, before and during lockdown, England and Wales: deaths registered between 9 March and 30 June 2020
[69] ONS (2020) Coronavirus (COVID-19) related deaths by occupation, England and Wales: deaths registered between 9 March and 25 May 2020

leisure and other service occupations had an elevated death rate and 59.7% of these deaths were in the most deprived neighbourhoods.

Indirect health impacts from COVID-19

11. Non-COVID-19 deaths have been close to the five-year average during 2020, some 6,000 above average between March and November. During the first wave of COVID, between week ending 3 April and week ending 1 May, non-COVID deaths were around 12,600 above the five-year average but they have been below average in other parts of the year.

Figure 5 - Non-COVID-19 Deaths in 2020 relative to five-year average in England

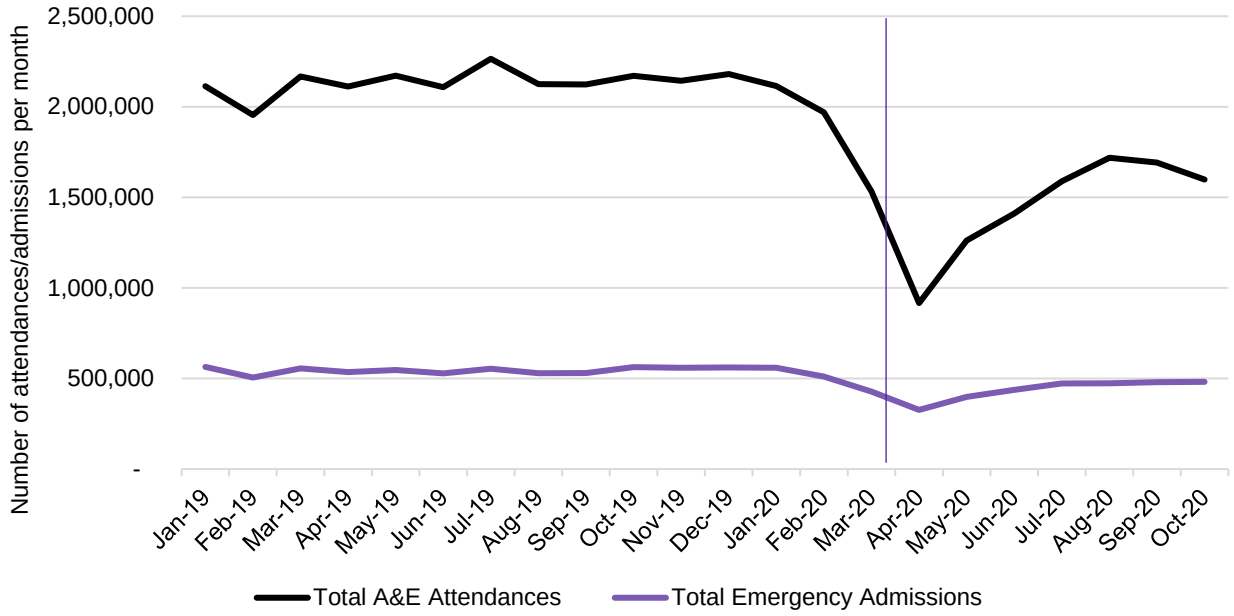


Source: ONS Deaths Registered weekly in England and Wales 2015 – 2020, data for England only

Emergency admissions

12. There has been a fall in total A&E admissions since the onset of the pandemic, as shown in Figure 6. In 2020, daily A&E attendances are 29% below last year's monthly average. Emergency admissions are currently 16% below the average last November. Particularly early in the pandemic, these lower admissions may in part have been due to some people's reticence to attend A&E and other NHS services. The Government and NHS have sought strongly to highlight the importance of continuing to seek NHS treatment when needed.

Figure 6 - A&E attendances and emergency admissions, Jan 2019 - Oct 2020



Source: NHS England A&E waiting times and Activity, 2020

Non-emergency admissions

13. Earlier in the year, there was a substantial reduction in non-emergency procedures, as the NHS halted a lot of elective activity to free capacity to deal with COVID-19. Major efforts have been made within the NHS to resume such activity and to avoid the negative health consequences that otherwise follow and during the second wave the NHS has sought to maintain elective surgery.

14. Non-emergency admissions were around 30% below pre-COVID-19 levels in September,[70] which reflects both the continued use of resources on COVID-19 and the importance of running hospitals in a COVID-19-safe way.

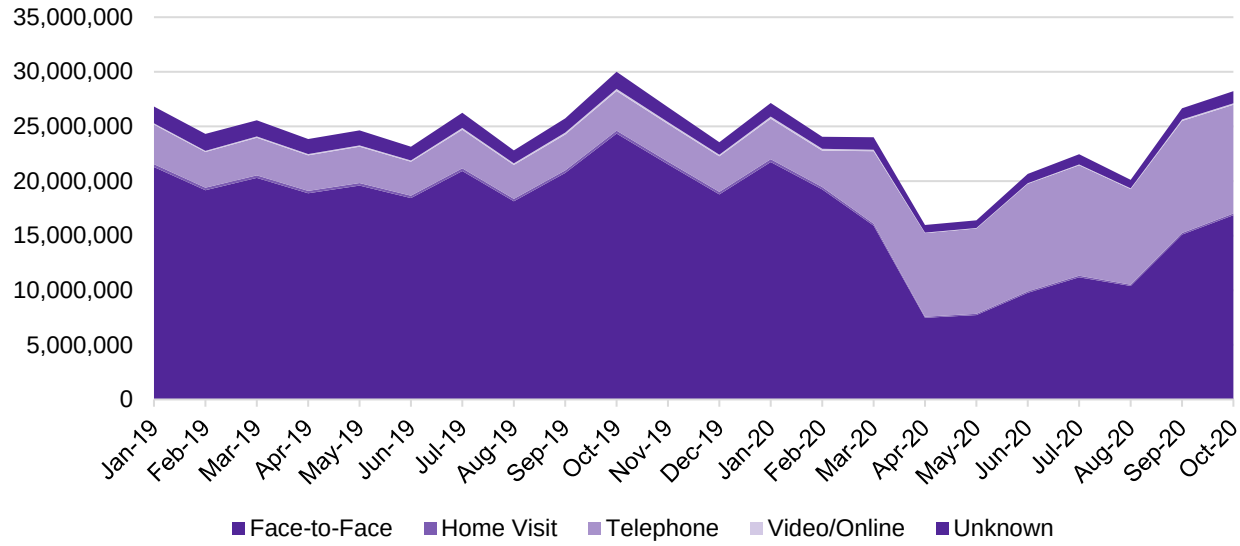
15. Even with the observed expansion of the NHS workforce (a 5.6% increase between August 2019 and August 2020 in all NHS Hospital and Community Health Service staff[71] and a decrease of 18,500 vacancies since last year), surge capacity and funding,[72] there is a trade-off between the NHS's ability to deliver COVID-19 and non-COVID-19 care in the event that COVID-19 hospitalisations rise.

[70] NHS Digital (2020). Hospital episode statistics for admitted patient care, outpatient and accident and emergency data: April 2020 to September 2020.
[71] NHS Digital (2020) NHS Workforce statistics – August 2020.
[72] GOV.UK (2020). Spending Review.

GP appointments

16. The chart below shows how GP appointments have changed during the pandemic. Earlier in the year, the number of appointments fell sharply. They have since recovered but a larger proportion remain by telephone compared to 2019.

Figure 7 - Changes in the number of GP appointments over time by type of appointment



Source: NHS Digital (2020): Appointments in General Practice, October 2020.

Wider health impacts, including from social distancing

17. In addition to the physical health impacts of reduced hospital attendance, there are also morbidity and mortality impacts as a result of the social distancing measures. In terms of benefits, we have observed or anticipate lower air pollution, non-COVID-19 infectious diseases, and would expect to see fewer occupational injuries. However, there have also been indications of poor mental health, lower physical activity, increased home accidents and increased musculoskeletal disorders.

18. Table 9 shows the pre-pandemic morbidity and mortality of certain conditions in 2019 using the Global Burden of Disease study data[73] for England, and the direction of change that a review of the evidence suggests social distancing measures would

[73] Global Burden of Disease (2019).

cause on particular health conditions. Deaths and morbidity for some conditions are expected to worsen, and for others to improve.

Table 9 - Estimated direction of change as a result of the short-term impact of restrictions on mortality and morbidity. Deaths and YLD data from Global Burden of Disease data for the year 2019 in England

	Deaths	Years lived with a disability	Direction of change during lockdown
Alcohol use	20,000	254,000	↑
Drug use	4,000	182,000	↓
Ambient particulate matter pollution	13,000	67,000	↓
Low physical activity	11,000	64,000	↑
Child and maternal malnutrition	1,000	132,000	↑
Occupational injuries	200	19,000	↓
Road injuries	2,000	42,000	↓
Musculoskeletal disorders	3,000	1,714,000	↑
HIV/AIDS and sexually transmitted infections	300	11,000	↓
Other infectious diseases	1,000	11,000	↓
Anxiety disorders	-	204,000	↑
Depressive disorders	-	431,000	↑
Self-harm	4,000	8,000	↑
Anxiety disorders (children)	-	43,000	↑
Depressive disorders (children)	-	33,000	↑
Self-harm (children)	100	100	↑
Interpersonal violence	300	21,000	↓
Domestic abuse	100	-	↑
Home accidents	8,000	416,000	↑

Source: Global Burden of Disease data, England, 2019. Direction of change as set out in DHSC, ONS, GAD and Home Office paper on excess mortality and morbidity.

19. According to Public Health England,[74] alcohol intake across the population as a whole remained about the same during the first national lockdown, with almost half reporting that they had neither increased nor decreased their drinking, and this pattern continued as restrictions were eased. Those aged 18 to 34 were more likely to report consuming less alcohol than before, during all phases of social restrictions, and those aged 35 to 54 were more likely to report an increase. However, there was an increase in the proportion of 'increasing and higher risk' drinkers from April to September 2020. Alcohol purchasing rose sharply just prior to the first national lockdown and has remained higher up to 1 November 2020 than in the same weeks in 2019. This pattern is observed across all life stages and social classes. There was an increase in alcohol

[74] PHE (2020). Wider impacts of COVID-19 on health: Summary, 26 November 2020

purchasing in the week preceding the second national lockdown which began on 5 November.

20. Smoking prevalence in the 4-week period ending 5 July was lower than the 2019 baseline. Smoking prevalence for people aged 16 to 24 more than halved in the same 4-week period. There has been an increase in the number of people attempting to quit smoking during the pandemic with two-fifths of smokers attempting to quit in the 3 months up to September 2020.

21. Data suggests there has been a significant improvement in air quality, likely linked to restrictions reducing mobility. Given the high health costs of air pollution, this is likely to have a very positive health impact. The data suggests there was a reduction in NOx levels by 35% during the initial lockdown in March[75] and this has remained around 15% to 20% lower than pre-lockdown levels since**Error! Bookmark not defined.**. This is supported by a paper published by DEFRA which suggests that, once weather effects are accounted for, mean reductions in urban NOx averaged over the 'high' restrictions period have been 30-40%.[76]

22. Road travel for the majority of the pandemic has been below historic levels.[77] With working from home advice and venues closed in higher tiers, the tiers policy is likely to be associated with fewer people being killed or seriously injured in road collisions.

23. The Active Lives Adult survey of 19,000 adults found that there was a 7.4% increase in the proportion of 'inactive' individuals and a 7.1 percentage point decrease in 'active' adults from mid-March to mid-May 2020 compared to the same period in 2019.[78] This had improved as gyms reopened and group exercise was permitted.

24. With the guidance to work from home where possible in place for much of the pandemic, it is likely that there will be a fall in occupational injuries but an increase in musculoskeletal disorders as many workers will likely have less access to professional ergonomic advice, and will be using ergonomically worse furniture and IT. Also, home accidents have likely increased due to a higher proportion of time being spent at home.

[75] Automatic Urban and Rural Network (AURN) for all UK cities except London; London Air Quality Network (LAQN) for London.
[76] DEFRA (2020) Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK
[77] Department of Transport (2020) Transport use during the coronavirus (COVID-19) pandemic
[78] Sport England (2020) Active lives Adult Survey: Mid-March to mid- May 2020.

25. In terms of the impact on diet, a detailed analysis of the impact of COVID-19 pandemic on grocery shopping behaviours was published by Public Health England on 5 November.[79] In the early stages of the pandemic, there was a shift towards cooking more from scratch, eating together with the family and eating healthy meals, but also a marked increase in snacking, especially in April and May. Certain cohorts are more likely to be vulnerable to the public health impacts of the socioeconomic consequences of interventions.

Mental health impacts

26. Public Health England publishes a detailed surveillance report[80] on a range of mental health indicators.

27. Data on anxiety from ONS demonstrates the sharp increase in anxiety rates in March 2020 as the pandemic spread, in comparison to rates predating the pandemic[81]. They have since fallen since their peak in late March but are still above pre-pandemic levels.

28. UCL has tracked stressors throughout the pandemic and found that, as of 9 November, around 1 in 3 people report being worried about finances (up from 1 in 4 over the summer); around 1 in 6 are worried about unemployment; and around 1 in 12 people are worried about access to food.[82]

29. Emerging data from the March/April lockdown period provides growing evidence that interventions such as social distancing and stay at home guidance including closures of education settings, are likely to have had an adverse effect on the mental health and wellbeing of children and young people.[83] This underlines the importance of keeping educational settings open.

Economic impacts, long term deprivation and health

30. There is evidence that a persistent, long-term economic downturn would carry negative health consequences. The relationship between deprivation, health outcomes, comorbidities and risk factors are well documented. There are persistent differences in

[79] PHE (2020). Impact of COVID-19 pandemic on grocery shopping behaviours
[80] GOV.UK (2020). COVID-19: mental health and wellbeing surveillance report
[81] ONS (2020). Personal and economic wellbeing in Great Britain: September 2020.
[82] UCL (2020). UCL Social Study Release 25.
[83] Children's Society (2020) Life on Hold: Children's Wellbeing and COVID-19; YoungMinds (2020) Coronavirus: Impact on young people with mental health needs.

life expectancy and healthy life expectancy between the least and most deprived areas.[84] People in more deprived areas are more likely to have multiple long-term conditions[85] and engage in health damaging behaviour, like smoking, use of alcohol and drugs.[86]

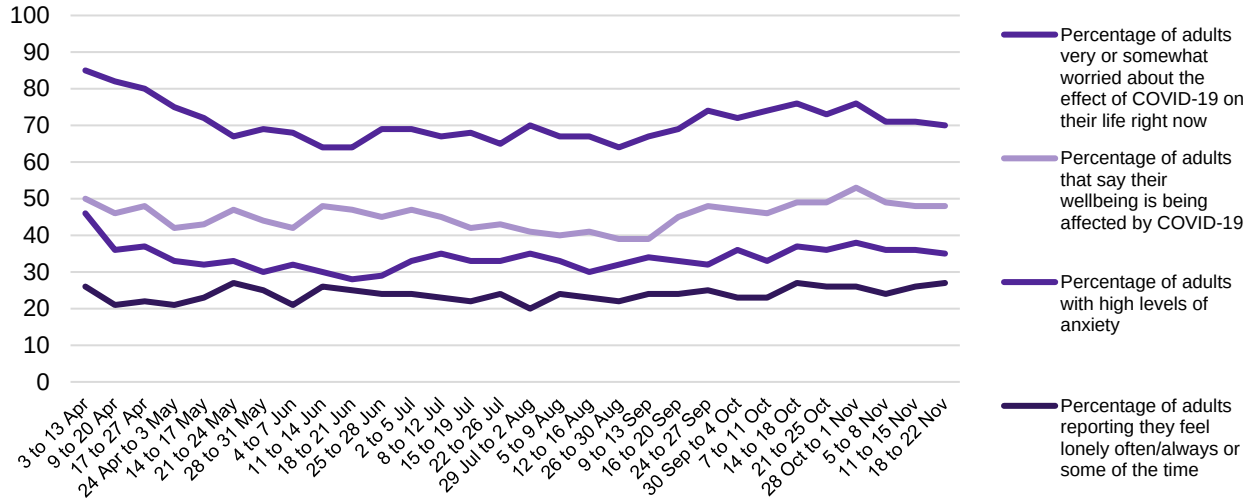
31. Economic deprivation predicts chronic ill-health; those who are vulnerable to the negative socioeconomic impacts of COVID-19 are likely to have their health, social and economic outcomes adversely impacted. Moreover, many of the economically vulnerable groups are also vulnerable to direct COVID-19 health impacts.

Social impacts to date

32. The Office for National Statistics Opinions and Lifestyle Survey provides evidence on some of the social impacts of the COVID-19 pandemic.[87] The latest data suggests that 70% of those surveyed are either very or somewhat worried about the effect of COVID-19 on their life, and almost 48% say their wellbeing is being affected. Disabled people were more likely to be worried about the impact of COVID-19 than non-disabled people, with 83.4% very or somewhat worried. This may be because only 19.6% of disabled people felt safe when outside their home, compared to 34.9% of non-disabled people.[88] Levels of anxiety have fallen since April but remain 20% higher than pre-pandemic. Isolation and reduced social contacts have also had an impact on loneliness, with 27% of those surveyed reporting feeling often or always lonely.

[84] The Health Foundation (2020). Health Equity in England: The Marmot Review 10 Years On
[85] PHE (2019). What do PHE's latest inequality tools tell us about health inequalities in England?
[86] Health and Social Care Information Centre (2018), Health Survey for England
[87] ONS (2020). Coronavirus and the social impacts on Great Britain: 27 November 2020.
[88] ONS (2020). Coronavirus and the social impacts on disabled people in Great Britain: 11 November 2020.

Figure 8 - Wellbeing impacts of COVID-19



Source: ONS Opinions and Lifestyle survey, 27 November 2020

33. There is clear evidence that time out of education is detrimental for children's cognitive and academic development and their long-term productivity. The most robust studies suggest that time out of formal education leads to lost learning which can meaningfully affect the attainment and life chances of children if not addressed.[89] Meta-analysis of learning loss shows that every further day of missed education matters and will likely lead to further reduced attainment.[90] Recently published studies show that time out of school in the 2019/20 academic year may have affected primary pupils' performance in reading, maths and spelling, punctuation and grammar assessments,[91] as well as basic skills for independence in younger children – reinforcing the importance of keeping children in classrooms.[92] Learning at home may be particularly challenging for disadvantaged pupils. The Education Endowment Foundation has estimated that the disadvantage 'gap' in attainment could widen as a result of the pandemic.[93] This will be exacerbated further if educational settings are not kept open.

34. Attending school is also important for the mental health and wellbeing of children – especially vulnerable children who are most likely to be affected due to increased risk of abuse and harm associated with isolation and financial stress.[94]

[89] DELVE Initiative (2020), Balancing the Risks of Pupils Returning to Schools. DELVE Report No. 4. Published 24 July 2020
[90] CEPEO (2020) Briefing Note: School Absences and Pupil Achievement
[91] Blainey et al (2020) – The impact of lockdown on children's education: a nationwide analysis
[92] Ofsted (2020) – COVID-19 series: briefing on schools, October 2020
[93] EEF (2020) – Impact of school closures on the attainment gap: Rapid Evidence Assessment
[94] ONS (2020) Mental Health of Children and Young People in the Pandemic

35. Since the start of the autumn term, children and young people have benefitted from attending early years settings, school, college and university. On average, 99% of state-funded schools have been open each week since term began and after a phased return for pupils, face-to-face attendance was maintained closer to 90%. After the October half term, face-to-face attendance in school declined for two consecutive weeks. As of 19th November, overall state-funded school attendance was 83%, in primary schools it was 87% and in secondary schools 78%. This was lower for vulnerable children, with attendance at 77% in state-funded schools for both those with a social worker and those with an Education, Health and Care Plan.[95]

36. Maintaining and boosting pupil attendance is more challenging in an environment where more pupils are required to isolate due to contact with COVID-19 cases, which appears to be the primary driver of attendance decreasing after the October half term. The Government has set out that schools have a duty to provide remote education when pupils are unable to attend face-to-face. However, keeping teaching available remains the Government's priority, and as such the tiers impose measures on other sectors to manage virus prevalence, to allow education settings to remain at full attendance.

37. There has been a 19% fall in the number of victims of crime in England and Wales when comparing April to June 2020 and January to March 2020, largely driven by a 30% reduction in thefts over the same period.[96]

38. The ONS has published some evidence on domestic abuse during the COVID-19 pandemic[97]. Police recorded crime data shows an increase in offences flagged as domestic abuse-related during the COVID-19 pandemic. However, there has been an increase in police recorded abuse-related offences before the pandemic due to improvements in the recording of these offences. Therefore, it is hard to determine whether the increase can be attributed to the pandemic. London's Metropolitan Police Service has received a higher number of calls-for-service for domestic incidents following lockdown. This may be because people were spending more time at home during this period. There has been an increase in demand for services for domestic abuse victims, although this may not necessarily mean an increase in the number of victims, instead an increase in the severity of abuse being experienced and an inability to escape the abuse or attend counselling.

[95] GOV.UK (2020) Attendance in education and early years settings during the coronavirus (COVID-19) outbreak, Week 47

[96] ONS (2020). Crime in England and Wales: year ending June 2020.

[97] ONS (2020). Domestic abuse during the coronavirus (COVID-19) pandemic, England and Wales: November 2020.

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