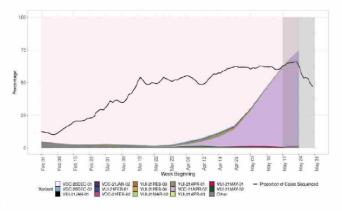
# **Extending Step 3 Impact Statement**

## Background

- 1. The government announced a Roadmap on 22 February 2021 which set out a cautious way to ease lockdown restrictions in England. The purpose of this Impact Note is to set out the impact of delaying) Step 4 of the Roadmap and summarise the assessment against the 4 tests outlined below. As with the previous Steps, these regulations will be implemented nationally.
- 2. Step 1A was implemented on 8 March. The epidemiological situation allowed England to move to Step 1B on 28 March, Step 2 on 12 April and Step 3 on the 17 May. The move from Step 3 to Step 4 was not planned for earlier than the 21 June and subjected to the four tests.
- 3. The latest SPI-M-O consensus statement<sup>1</sup> shows that **R in England** is between 1.2 and 1.4. These estimates reflect the latest available data up to 7 June. Data underpinning estimates of epidemic metrics, such as R, are at least two weeks out of date, and are yet to fully reflect the rapid increases of transmission seen as a result of Variant of Concern (VOC) B.1.617.2.
- 4. The growth rate in new infections in England is between +3% and +6% per day. Changes in behaviour as a result of Step 3 of England's Roadmap, which took place on 17th May, will not yet be fully reflected in these data and growth rates will increase further. SPI-M-O states it is evident that the incidence of infection is increasing, and that this is widespread across England and Scotland with clear exponential growth of cases<sup>2</sup>.
- 5. The latest PHE analysis<sup>3</sup> shows that **B.1.617.2** (henceforth referred to as Delta) now accounts for the overwhelming majority of new cases in the UK. The data indicates that over 90% of new COVID-19 cases in the UK are now the Delta variant<sup>4</sup>, which continues to show a significantly higher rate of growth compared to the Alpha variant.

Figure 1 - Variant prevalence for all England available case data from 1 Feb 2021 (as of 31 May 2021)



<sup>&</sup>lt;sup>1</sup> SPI-M-O 9 June 2021

<sup>&</sup>lt;sup>2</sup> SPI M O 9 June consensus statement

<sup>&</sup>lt;sup>3</sup> HYPERLINK "https://www.gov.uk/government/news/confirmed-cases-of-covid-19-variants-identified-in-uk" Confirmed cases of COVID-19 variants identified in UK - GOV.UK (www.gov.uk)

<sup>&</sup>lt;sup>4</sup> Delta is now present across the country and accounts for 73% of sequenced cases in England (the latest figure is over 90%, using SG+ as an early proxy for non-Alpha variants).

- 6. Vaccination numbers are increasing rapidly, vaccines have been rolled out since 8 December. Real world data show that vaccines are highly effective in reducing the risk of hospitalisations and deaths. A single dose of either the Pfizer or AZ vaccines reduces the risk of hospitalisation by ~80% and death by ~85% against B.1.1.7. Two doses of the Pfizer vaccine prevents 90-95% hospitalisations and 95-99% deaths <sup>5</sup>-against B.1.1.7 (alpha). Recent evidence suggests vaccines to remain highly effective against hospitalisations from Delta variant, ~ 96% effectiveness after 2 dose in the case of Pfizer and ~92% for AZ<sup>6</sup>.
- 7. **Long COVID** is the continuation of symptoms and the effects of COVID-19 that remain after the initial period of infection. Within the four-week period ending 2 May 2021, over 1,000,000 people had self-reported long COVID of any duration in the UK. Of these, 376,000 reported having long COVID for 12 months or longer. Long COVID can have differing impacts on quality of life, with 192,000 people in the UK reporting that long COVID has impacted their activity 'a lot'<sup>7</sup>. The ONS estimates that 0.10% of the population aged 2-11 have been suffering with long COVID for 12 weeks or longer, 0.39% of those aged 12-16, and 1.28% of those aged 17-24. The vast majority of those within these age groups are not yet eligible for the vaccine and therefore will be at an increased risk of catching COVID-19, and developing long COVID, if restrictions are removed and infections spread within these groups.

# Rationale for delaying Step 4

Four Tests

#### 1) The vaccine deployment programme continues successfully

England met the target of offering a second dose to JCVI cohorts 1-4 by mid-May. It is likely that we will meet the mid-July target of offering cohorts 5-9 a second dose early. Based on current targets, NHS projects that we will likely be able to offer a first dose to all adults (i.e open bookings) by July, but the vaccinations will probably take place early in August due to supply constraints. Over 93% of those aged 40 and over have received at least one dose. Vaccine coverage is lower in London, in more deprived areas, in non-white ethnic groups, and in care home staff.

## Evidence shows vaccines are sufficiently effective in reducing hospitalisations and deaths in those vaccinated

One dose of either vaccine reduces hospitalisations by ~80%. Two doses of the Pfizer vaccine provides 90-95% protection against hospitalisation caused by severe disease. There are indications of decreased vaccine effectiveness against symptomatic disease for Delta compared to Alpha, but this increases after two doses. The NHS projects that second doses will be offered to all remaining eligible adult population by around the middle of October

<sup>&</sup>lt;sup>5</sup> Cabinet Office social distancing review

<sup>&</sup>lt;sup>6</sup> Effectiveness of Covid-10 vaccines against hospital admission with Delta (B.1.617.2) variant, ONS (14 June 2021).

<sup>&</sup>lt;sup>7</sup> Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK, ONS (4 June 2021). Accessed 11 June 2021

# Infection rates do not risk a surge in hospitalisations which would put unsustainable pressure on the NHS

Infection rates and hospitalisations are at low levels but are now increasing and growth is accelerating. The level of non-COVID emergency demand is at the highest level since March 2020. Modelling indicates there is a risk of a sharp rise in hospitalisations, with some scenarios exceeding previous peaks, though there is a risk previous peaks may be exceeded even if Step 3 were to be extended. The ratio of cases to hospitalisations remains a key uncertainty.

# 4) The assessment of the risks is not fundamentally changed by new Variants of Concern (VOCs)

Delta is now present across the country, accounting for over 90% of cases. Furthermore R is estimated to be 40-80% higher for Delta than for Alpha. The recent increases in hospitalisation are driven by Delta (Figure 2).

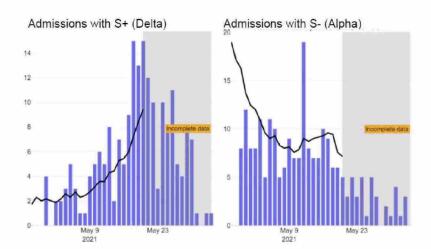


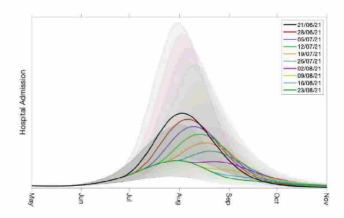
Figure 2 - Hospital admission by PCR gene target (England 5 June 2021).

## Trend considerations

- 8. If Step 3 regulations, set out below, are not extended then restrictions on behaviour that have limited the spread of the virus will be removed. This will have consequences for the epidemiological trend.
- 9. There is a significant risk of escalating infections and hospitalisations as a consequence of the new variant, which will be more severe if restrictions are removed. The magnitude of the impact of Delta becoming the dominant variant is uncertain. The key uncertainties are the growth advantage of delta compared to alpha, effectiveness of vaccines against severe disease caused by the delta variant, and the extent to which behaviours change following the removal of restrictions. Modelling of removing restrictions by taking Step 4 of the Roadmap on 21st June shows a large resurgence in infections and admissions.

- 10. Vaccines mitigate this risk but do not eliminate it. To prevent ongoing long chains of transmission 80% of the population need to be either vaccinated or have antibodies<sup>8</sup>. Hence, despite the success of the vaccine rollout, the growth in cases could increase for many more weeks, particularly if there is an increase in social interaction from a loosening of restrictions.
- 11. Modelling suggests that the level of hospital admissions in England will be significantly affected by how transmissible the Delta variant is and the vaccine effectiveness against it. Even with optimistic vaccine effectiveness assumptions, admissions could exceed the Jan 2021 peak in the event of a further relaxation of the Covid-19 measures. Figure 3 shows how delaying Step 4 for various numbers of weeks impacts hospitalisations. Even a two-week delay would have a significant effect, but a four-week delay is modelled as reducing the peak in hospital admissions by around a third to a half.

Figure 3 - Illustrative modelling showing the impact on scale and timing of a peak in hospitalisations if Step 4 is taken on 21<sup>st</sup> June (black) and how this might change were Step 4 to be delayed, SPI-M-O 2 June, Warwick model.



12. By extending Step 3, the **likelihood of re-imposing stricter measures in the future is expected to reduce.** Public opinion indicates that they would rather see stricter measures continue if that decreases the likelihood of re-imposing restrictive measures in the future<sup>9</sup>. In addition, many also expect the measures to remain in place beyond the dates set in the Roadmap. In a recent YouGov poll 45% found it fairly unlikely for restriction to be lifted by the 21<sup>st</sup> of June, and 19<sup>th</sup> very unlikely<sup>10</sup>; indicating understanding of the dynamic nature of the pandemic and the need to adjust accordingly.

<sup>&</sup>lt;sup>8</sup> Four tests – Cabinet Office

<sup>&</sup>lt;sup>9</sup> In depth: Social distancing review analysis. Cabinet Office, 28 May 202.1

<sup>&</sup>lt;sup>10</sup> YouGov polling, accessed 8 June.

### Regulations

13. The Impact Statement assess the extension of Step 3, which comprises the regulation in Table

#### Table 1- Extend regulations

- Retain restrictions on general social contact: Ro6/2HH indoors, and up to 30 outdoors
- Retain gathering limits for life events: up to 30 people for weddings/civil
  partnerships and receptions, significant/standalone life events, commemorative
  events/wakes; and no numerical limit on attendees for funerals (determined by
  venue capacity in guidance)
- Retain gathering limits for support groups and parent and child groups: up to 30 people (not including children under 5)
- Retain gatherings offences: these apply where a person breaches the national gatherings limits (Ro6/2HH indoors; 30 outdoors) as well as specific offences for participating in an indoor gathering of more than 15 people, or organising a gathering of more than 50 people outdoors, or 30 people indoors
- Retain restrictions on service of food and drink: table service requirement for customers to eat and drink while seated in certain hospitality venues and casinos, and for full table service in these venues where alcohol is served
- Retain closure of businesses: nightclubs, dance halls, discotheques, dance floors/spaces for dancing, sexual entertainment venues/hostess bars, and shisha bars
- Retain powers and designations
- Retain required precautions
- Retain SoS power of disapplication of restrictions for pilots [TBC on whether amendment required to expand power beyond transmission studies]
- Retain and amend time bound provisions (student vacation households to new expiry date and support bubble eligibility)
- Retain and amend statutory review date to 2 weeks
- 14. In addition, the decision has been taken to ease some of the restrictions on weddings and civil partnership ceremonies and receptions, and events marking lost loved ones, such as wakes. The events will be allowed to take place with capacity limits to ensure social distancing in all venues, including private gardens, to minimise risk of transmission. Organisers will have to take the required precautions, including the completion of a risk assessment.
- 15. The assessment of the costs and benefits of the policy needs to be considered against what would have happened in the absence of the change in policy (i.e. the counterfactual) with regards to the progression of COVID-19 cases and deaths, people's behavioural responses, and the resulting economic and social costs. Current eegulations <sup>11</sup> have a sunset date of 30 June. Therefore, the counterfactual of extending all the provisions in Step 3 is their automatic fall, which implies a significant relaxation of the measures set to control the spread of COVID19.

<sup>&</sup>lt;sup>11</sup> The Health Protection (Coronavirus, Restrictions) (Steps) (England) Regulations 2021

# Impacts of extending Step 3 (counterfactual: the regulation falls on the 30 of June)

#### COVID-19 cases and related health costs

- 16. Extending Step 3, involves retaining restrictions on general social contacts (Rule of 6/2 households meeting indoors and up to 30 people outdoors), gathering limits, and postponing the reopening of economic sectors and activities which are currently closed. This will likely see social contacts indoors and outdoors remain stable, contributing towards controlling the spread of the virus, with a lower number of transmissions compared to a more relaxed set of measures in the counterfactual scenario.
- 17. Extending Step 3 has a positive impact on hospitalisations as it maintains social contact at a lower level, thus reducing transmission and hospitalisation risk. Although the proportion of cases that go on to require hospitalisation is now very much lower thanks to vaccination, the link between infection and hospitalisation has not been broken. SPI-M-O latest assessment<sup>12</sup> presents in all the scenarios modelled, a short delay to the date at which Step 4 is taken to significantly reduce both the height of the next peak and the total number of deaths and admissions that occur over the duration of the wave.
- 18. Additional time under Step 3 would allow for more vaccinations to take place thus reducing the proportion of the population susceptible to COVID-19, particularly with vaccinations in younger age groups that have more contacts. For those cohorts which are not yet vaccinated (under age 30s), reduced susceptibility to COVID-19 would have positive health impacts for individuals who would have become infected if Step 4 had taken place. Furthermore, as being vaccinated decreases the chances of being infected new incidences of long COVID are likely to be much less.
- 19. Deprived communities are more likely to suffer from a rise in the number of cases due to the differences in vaccine uptake and financial barriers to comply with isolation. We may observe subsequent waves of infection to be concentrated on these communities; high case numbers of the B.1.617.2 are currently occurring in deprived communities within Blackburn, Bolton and Bedford<sup>13</sup>. These areas are more likely to suffer from enduring transmission, seeing their case rates increasing faster and decreasing slower. Furthermore, due to their high proportion of vulnerable people, the severity of the disease may be worse as well.

#### Non-COVID-19 physical health impacts

- 20. Extending Step 3 supports the NHS recovery trend to cope with the unmet demand created in the previous Covid-19 waves. SPI-M-O analyses<sup>14</sup> suggests that taking Step 4 later both delays the peak of hospital admissions and shrinks their total number compared to progressing with further relaxation of the measures.
- 21. Non-Covid 19 hospital activity could be significantly impacted if restrictions were loosened and Covid-19 related admissions rose significantly. Non-emergency hospital activity faces long-lasting pressure as a consequence of the disruption Covid-19 inflicted on its regular functioning. Figure 4 reflects the increase in Covid-19 hospitalisations and simultaneous reduction in other health care activities. Non-emergency admissions have increased steadily as Covid-19 bed occupancy has fallen and are continuing to rise back to the pre-Christmas

<sup>&</sup>lt;sup>12</sup> SPI-M-O 9 June

<sup>&</sup>lt;sup>13</sup> In depth: Covid-19 and place-based inequalities, Cabinet Office.

<sup>14</sup> SPI-M -O 2 June

levels<sup>15</sup>. However the latest available data<sup>16</sup> shows that waiting lists in April 2021 were over 5.1m having been just below 4.5m pre-pandemic, with 64.4% of patients waiting less than 18 weeks. The number of patients waiting over a year for treatment is now around 385,000, which supposes a reduction from 435,000 last month, but it remains significantly higher than pre-pandemic levels set around 1,600 patients waiting for 52 weeks. Any increase in transmission rates and Covid related hospitalisations would therefore affect those in need of non-Covid-19 related secondary care.

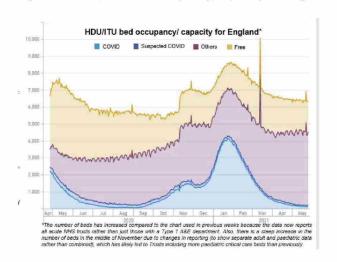


Figure 4 - HDY/ITU bed occupancy/capacity for England.

- 22. The latest NHSE data available indicates that the number of primary care appointments is similar to pre-pandemic levels. In March 2021, appointments per working day were 0.8% lower than March 2019, the best comparison month. Appointments in the first half of April 2021 were higher than the corresponding period in 2019<sup>17</sup>, though it is difficult to make comparisons as some of these appointments were vaccinations. It is unclear whether extending restrictions will have an impact on demand as the epidemiological situation is different from when previous Steps were implemented. A larger proportion of the population who have been vaccinated may feel more comfortable making GP appointments regardless of a change in restrictions, which may in part already be reflected in current GP appointment numbers.
- 23. Extending Step 3 implies a likely negative impact on mobility compared to a scenario where measures were to be widely loosened. Road travel throughout the majority of the pandemic has been below historic levels<sup>18</sup>, this had a positive health impact in terms of reduction of air pollution ,as well as less people being killed or seriously injured in road collisions. However, more recent data shows travel levels to be nearly back to their pre-pandemic figures<sup>19</sup>. Consequentially, we expect a marginal impact on mobility and so on health related impacts.
- 24. Extending the current regulation implies for nightlife to remain close. We expect positive health impacts as a result of not observing the potential rise in associated risky behavior for

<sup>15</sup> ABCD slides 270521

<sup>&</sup>lt;sup>16</sup> RTT published waiting list data

<sup>17</sup> MI publication

<sup>&</sup>lt;sup>18</sup> Department of Transport (2020) Transport use during the coronavirus (COVID-19) pandemic

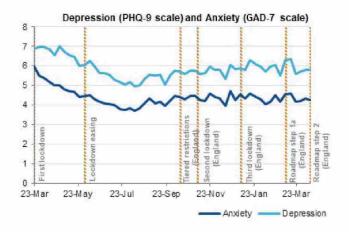
<sup>&</sup>lt;sup>19</sup> Transport use during the coronavirus (Covid-19) pandemic. ONS (3 June 2021), accessed 14 June 2021.

- certain groups, leading to an increase of sexually transmitted diseases (STD), as well, as drugs misuse and alcohol intake. Interpersonal violence may also observe a raise due to its link with alcohol and drugs misuse.
- 25. Step 3 implies maintaining the advice around working from home when possible. This could imply a higher prevalence of musculoskeletal conditions due to individuals being less likely to have access to professional ergonomic advice. Furthermore, eating habits may be affected as people remain spending a significant proportion of their time at home. The direction and magnitude of the impact is highly dependent on individuals' circumstances.
- 26. By extending Step 3 we expect other infectious diseases to remain on fairly stable low levels. Other infectious diseases have seen their numbers decrease partially as a result of the measures imposed to control the spread of Covid-19. Data from the ONS shows that deaths from influenza and pneumonia are lower in 2020 compared to the 5-year average<sup>20</sup>. This trend has been the same in other countries, such as the US<sup>21</sup>. The extend of the impact is difficult to predict, and will depend on other factors such as the competitive advantage of Covid-19 over third respiratory infectious disease, or the population profiles being at risk.

Mental health impacts and impacts on people's wellbeing

27. The net impact on mental health and wellbeing from the extension is uncertain. The most recent data collected by ONS (28<sup>th</sup> May) finds that all measures of mental health are yet to recover to their pre pandemic levels in February 2020. Prior to Roadmap Step 1A, there were sharp increases in both depression and anxiety, perhaps associated with increased uncertainty and fears around catching Covid-19. This subsequently reduced but did not recover to prepandemic levels (Figure 5). The impact extending Step 3 may be less noticeable than for previous Steps when restrictions changed.

Figure 5 - Mental health indicators from ABCD paper



28. Any delay in relaxation of the rules may act as a signal that the risk of Covid-19 is increasing and therefore may be associated with more stress and anxiety levels for individuals. However,

<sup>&</sup>lt;sup>20</sup> Deaths due to COVID-19 compared with deaths from influenza and pneumonia. ONS (October, 2020)

<sup>&</sup>lt;sup>21</sup> Estimated Influenza Illnesses, Medical visits, Hospitalizations, and Deaths in the United States — 2019–2020 Influenza Season | CDC

it is unclear whether that would be the case or, on the contrary, certain segments of the population would see their mental wellbeing positively affected due to the perception of measures to align with the epidemiological state, making them feel safer.

- 29. There could be some adverse impact on those who had booked domestic holidays. By extending Step 3, holidays with groups of more than 6 could be required to cancel their plans and incur financial costs as well as negative wellbeing impacts from inconvenience.
- 30. Extending step 3 regulations mean that some premises (e.g including nightclubs) will stay closed, and restrictions on activitythat limit capacity at open venues will continue. By extending Step 3, the main impact of this will be economic (see paragraph 31). However, there could be negative health impacts for employees who cannot return to work as planned, such as direct mental and physical health impacts and also financial worries.
- 31. Extending Step 3 regulations will mean that a number of businesses, including gyms and exercise classes, will not be able to operate at full capacity. As these are services exhibit excludability, some individuals may not be able to access these services and incur a negative mental health cost.
- 32. From the amendment to Step 3 allowing for wedding capacities to be determined by venue size (rather than 30), we can expect utility and mental wellbeing gains for those individuals that otherwise would have had a more restrictive gathering. In 2020, 94% of weddings were cancelled, and 200,000 were postponed, which has resulted in high levels of anxiety amongst couples<sup>22</sup>. The postponement and cancellation of many weddings and civil partnership has resulted in a pipeline of 475,000 ceremonies due to take place in 2021, with particular pressure on the summer months when most weddings take place. This is associated with negative mental health impacts. Nearly a quarter of adults (and 80% of the 16-24 age group)<sup>23</sup> including those couples engaged but not able to live together have had to legally maintain a social distance from their romantic partner for over a year, prior to Step 3 of the Roadmap, bringing with it negative wellbeing impacts. Furthermore, cancelling important life events such as wedding ceremonies is likely to bring stresses to individuals as well, both financial and mental, given weddings take on average 6 to 14 months to plan.

#### Impacts on the business sector

33. Extending Step 3 disproportionally affects those sectors that have been hardest hit by social distancing measure. For example, some hospitality venues are required to remain closed, others may choose to if they are not economic when social distancing rules apply and others may be currently operating below their break-even capacity. Figure 6 presents the Gross Value Added (GVA) by sector in October 2020, when a there were still some restrictions in these sectors relative to February 2020, prior to restrictions. The gap is highly correlated with the feasibility of running the business activity under Covid-19 restrictions. An industry survey found that retaining 1m+/2m social distancing is expected to reduce revenues by c.40% compared with pre-Covid levels in the hospitality industry<sup>24</sup>.

<sup>&</sup>lt;sup>22</sup> Policy rationale 13 June - Internal SENSITIVE

<sup>&</sup>lt;sup>23</sup> ONS (April 21) - Estimates for individuals aged 16 years and over, resident in private households in England in 2020 by age groups

<sup>&</sup>lt;sup>24</sup> In depth: Covid-19 and place-based inequalities, Cabinet Office.

■ Economic output in Oct 2020 ■ Gap in economic output from Feb 2020 % of UK GVA Arts, entertainment and recreation 2% Administrative and sunnert services 5% Transport and storage 4% Other service activities 2% Mining and quarrying Agriculture, forestry and fishing Information and Communication Manufacturing Professional and scientific activities Health and social work Construction Real estate activities al and insurance activities Electricity gas, steam and air Water supply, sewerage etc 150 Public administration and defence Wholesale and retail 10%

Figure 6: Gross Value Added (GVA) in October 2020 relative to February 2020<sup>25</sup>

- 34. In addition, sectors most affected by social distancing restrictions tend to be labour intensive and have furloughed large proportions of workers. From those working at the Accommodation and food services 27%are furloughed, 24% of those at theArts and entertainment sector compared to other sectors like Finance and Insurance or Manufacturing (2% and 8% respectively) <sup>26</sup>. For instance, the hospitality and entertainment sectors made up 3.4 million jobs in 2020 which have typically been restricted since the end of last year<sup>27</sup>.
- 35. Some accommodations and food services may benefit from the amendment to Step 3 allowing for life cycle events to be restricted by capacity limits rather than numerical limits. Therefore, subject to venues' capacity and assuming people's appetite to carry over these events, the accommodation and food services will benefit from easing these restrictions. The wedding industry has huge economic value and it is estimated that annually, people spend £14.7bn on purchasing goods and services directly related to weddings. Nevertheless, the measure is likely to disproportionately benefit big venues. For small venues, the capacity and numerical limits may be rather the same, and so would continue not to beg able to host these events.

#### Impacts on the public sector

36. Many sectors that have achieved some level of commercial viability under social distancing restrictions, have done so through government support (e.g. the Sport Winter Survival Package). As Step 3 is maintained, business support will keep being required for some sectors having an impact on public spending. HMT's latest estimate is that 2.95m jobs would remain furloughed in June. On the current distribution of x-sector furlough, this implies that 727,000 jobs would remain furloughed in Accommodation & Food Services, 199,000 jobs in Arts, Entertainment & recreation and 122,000 jobs in Transport & Storage<sup>28</sup>

<sup>&</sup>lt;sup>25</sup> HMT via ONS Monthly GDP by GVA. Available from: <u>Monthly gross domestic product by gross value added - Office for National Statistics (ons.gov.uk)</u> (accessed 11 June 2021)

<sup>&</sup>lt;sup>26</sup> Coronavirus Job Retention Scheme statistics: December 2020. ONS (17 December 2020)

<sup>&</sup>lt;sup>27</sup> 2HMT via ONS Employee jobs & Self-employment jobs

<sup>&</sup>lt;sup>28</sup> Cabinet Office social distancing review

#### Macroeconomic impacts (OBR)

37. The Office for Budget Responsibility's March Economic and fiscal Outlook<sup>29</sup> forecasts GDP and unemployment levels for 2021. They make assumptions on the level of social distancing measures in place to control transmission rates of COVID-19 and, for their March forecasts, they presume that restrictions will follow the Roadmap. The current delay for Step 4 implies a discrepancy in the scenario considered, and for the forecast to potentially no longer reflect the state of the economic to the same accuracy level. Uncertainty around the evolution of the pandemic, as well as the timelines for easing restrictions, make unclear the magnitude of the change on the expected macroeconomic trends, in terms of GDP growths and overall unemployment rates. Nevertheless, persistently uneven sector impacts may led to greater long-term structural changes.

### Risks and uncertainties

- Compliance and understanding of rules. Data suggests that in summer 2020 less than half of
  the people in England had a good understanding of the rules<sup>30</sup>. A lack of understanding and or
  adherence to regulations may lead to measures being less effective than anticipated.
- Uncertainty in relation to the new strains New variants keep emerging within the UK and abroad. They have different effects on transmission rate and potentially the course of infections.
- Vaccine uptake and efficacy Coverage and Efficacy determine how effective the vaccines
  are in reducing infections, hospitalisations, and deaths. No vaccine offers 100% protection,
  but we will get a better understanding of the efficacy of the different vaccines and how they
  change the course of the pandemic.
- Long Covid uncertainty Our understanding of long covid, the number of people affected, the length and severity of long covid is still improving over time. The costs associated with it are uncertain as well as the impact of the vaccines on its prevalence.
- The degree of risks undertaken by individuals. Social interactions have increased as the
  roadmap has permitted this: since step 1a, there have been large increases in people meeting
  with friends or family they don't live with and going out to work. Although the type of
  messaging used has some impact on behaviour, their change is mainly driven by the stage of
  the roadmap, i.e. what is open and the level of mixing permitted<sup>31</sup>.

<sup>&</sup>lt;sup>29</sup> OBR (2021). *Economic and fiscal outlook, March 2021*. Available from: https://obr.uk/docs/dlm\_uploads/March2021EFOweb.pdf (accessed 6 June 2021)

Less than half of people in England understand current lockdown rules | UCL News - UCL – University College London

<sup>&</sup>lt;sup>31</sup> In depth: Social distancing review analysis. Cabinet Office, 28 May 202.1