FOR DECISION

COVID-19: Winter strategy

Date: *19 September 2020* *From:* *Simon Ridley*

Deadline: *20 September 2020*

1. The infection is spreading rapidly. The 7-day average of confirmed cases has risen from 1,077 in mid-August to 3,598 today and is on a sharply upward trajectory.[1]This trend has now translated into hospitalisations, which have doubled in a fortnight.[2] SPI-M-O's view is that, if no further measures are implemented, "such a high level of hospital admissions has the potential to overwhelm the NHS in around six weeks."[3]

2. The Government aims to keep R at or below 1 between now and March to prevent an exponential growth in cases and mortality. At present, R in the UK is estimated to be between 1.1 and 1.4. The Government needs to change people's behaviour to bring R back to 1, while balancing the societal, economic and non-COVID health impacts of its intervention. This paper asks you to consider:
   a. the current trajectory of the epidemic;
   b. a new winter package; and
   c. the options to go further.

A. Current trajectory

3. New SAGE modelling suggests that on the current trajectory we could surpass 50,000 daily infections, the first-wave peak, by mid-October.[4] Hospitalisations and deaths would surpass the first wave peak by early November.[5] By then, managing the outbreak would require more disruptive and longer-lasting measures, and be made more difficult by the winter context.

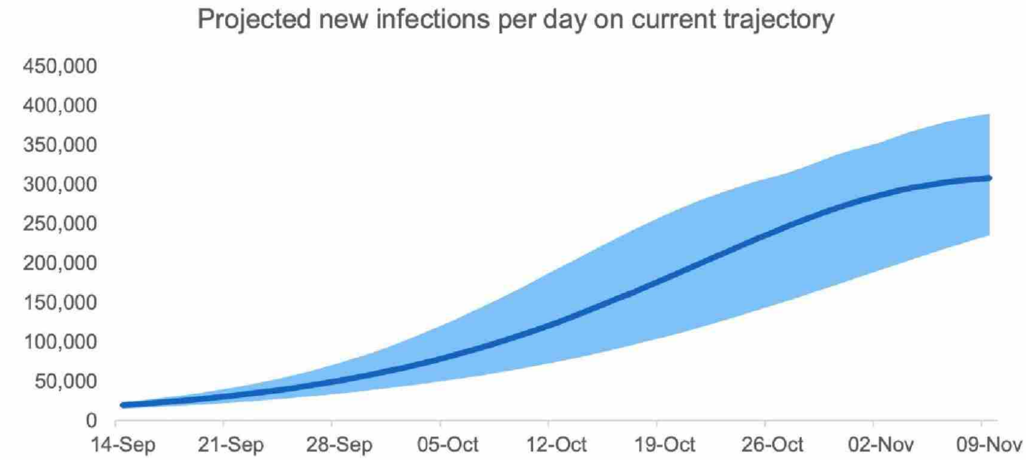
[1] **Doubling time and regional variation:** SPI-M-O's recent consensus paper states that the doubling time is between 10 and 20 days and could be as short as 7 days. Most likely doubling time is 7-10 days. There is significant variation between regions, but the number of LTLAs with cases over 20/100k has more than quadrupled over the last two weeks. 40 Local Tier Local Authorities had case rates above 20 per 100k people on 28th August this had risen to 162 local authorities on the 11th September - the latest date such figures are accurate. Rose from 1940 on 4 sept to 4322 on 18 sept.

[2] 7-day rolling average of hospitalisations (E&W) has approx. doubled in the last fortnight from 112 to 218. Hospital admissions have increased 3 fold and ICU admissions 2 fold, albeit from a low baseline.

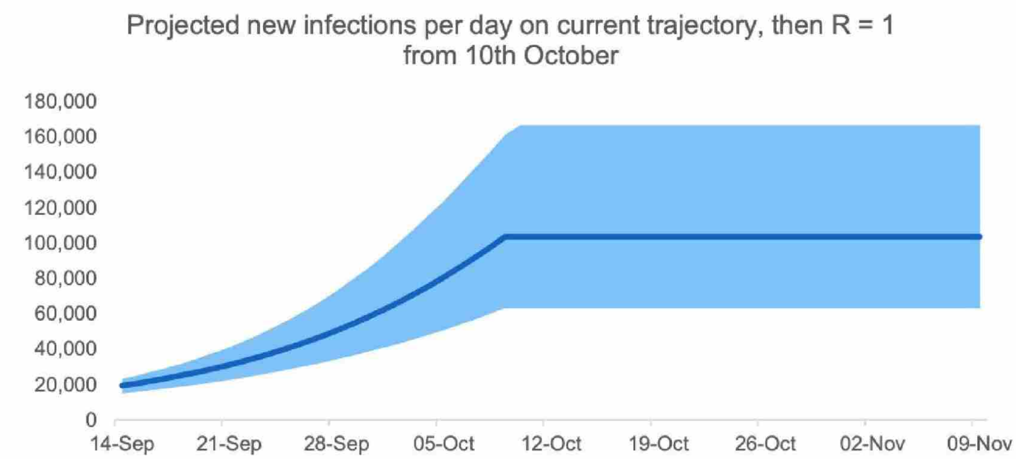
[3] This modelling does not take into account the measures announced last week, including the interventions in the North East and the introduction of the rule of six. Contact and activity metrics suggest no effect of the rule of 6 yet.

[4] **Modelling**: Modelled projections from the University Of Warwick on behalf of SPI-M and SAGE until 10th October, then illustrative scenarios with R =1 prepared by the SPI-M secretariat to assumptions agreed by Deputy Chief Scientific Advisor. Illustrative scenarios assume a 2-3 weeks lag between infection and hospitalisation, and a 3-4 weeks lag between infection and death.

[5] **Impact on NHS:** The knock-on effect of increased COVID demand in hospitals will be reductions in non-urgent care and poorer health outcomes for those patients. Analysis from DHSC, ONS, HO and the Government Actuary's Department estimates that the 2-month lockdown resulted in 15,000 extra deaths as a result of delays to emergency care, rising to 28,000 as the results are fully felt over the coming 2-5 years.



4. You could decide to take minimal action now, with a plan to intervene a couple of weeks hence if the numbers continue to deteriorate. But any intervention is likely to take two or three weeks to have an effect. During that time, infections will continue to grow. This lag-time means that further growth is likely, even if the Government acts decisively now. Delay will make this worse. If the Government delays action by a week or more, it might not bring R down to 1 until 10 October, by which point infections would have reached a level equivalent to the April peak.[6]



5. The Government introduced new measures, including a 'rule of six', on Monday. These have not yet had time to drive a change in transmission and have not yet been reflected in SPI-M modelling. We have not seen evidence to suggest this rule is having a big impact on the public's attitudes or behaviours.[7] The CMO and GCSA advise that this intervention is unlikely to bring R to 1 unless there is more significant behaviour change.

[6] Modelled deaths include all COVID-deaths following a positive test result.
[7] **Impact of rule of six:** Only 25% of the public believe that these changes will be an effective way of controlling the virus (YouGov polling). We have not seen a decrease in those reporting they are meeting people in groups larger than 6 and there has been no significant change in mobility. On the other hand, mobility has stopped rising and we have seen falls in consumer confidence. The introduction of the rule impacted both behaviour and economic activity in the hospitality sector, with 76.5% of venues reporting cancellations immediately after the announcement of the rule

B. A new winter package

6. **Package A: Double down for winter.** We recommend a package of measures which should be introduced in all circumstances from now until the end of March. The package would be designed to change people's behaviour, while keeping children and students in education and minimising economic harm. It would comprise:
    a. a national address, given by you, to the British people, to warn them that winter is likely to be difficult, that behaviour must change, and that a vaccine is not likely to be rolled out before next year;
    b. in conjunction with the above, a publication warning to the public that if the infection continues to spread, certain hospitality and leisure venues could face further restrictions (such as curfew or opening hour restrictions), particularly those that flout the guidance. We would also warn that household mixing could be prohibited across the nation;
    c. a return to guidance asking people to work from home where they can. This will not be a general 'stay at home' message; we will be clear that this only extends to where people can genuinely work from home. This would affect civil servants and others who have returned to the office in recent weeks;[8]
    d. a codification of our local interventions into tiers, as agreed at the COVID-Ops Committee;
    e. the mandation of COVID-Secure guidelines across all businesses (this is currently only required in hospitality), and premises fined or closed where breaches occur;[9]
    f. requiring, in law, that all hospitality is table-service only;
    g. pending detail from the Home Office, the reprioritisation of police resources to enforce the rule of six, self-isolation and quarantine, noting that this will detract from their existing responsibilities and may require surge funding;
    h. limiting the exemptions to the rule of six, including by removing indoor sport and wedding receptions, stating clearly in the guidance that formal societies such as choirs shouldn't go ahead and reducing the number of people at life-cycle events and weddings to 15; and
    i. a cancellation of the planned return of business events and socially distanced crowds in stadia from 1 October and a pause on pilot events.

7. It is the view of the CMO and GCSA that, unless it prompts a significant behavioural response, Package A is very unlikely to drive R below 1. Options to go further - packages B and C - are presented below.

[8] This will help to avoid the problems seen in April (where manufacturing output fell 24.3% month-on-month, with construction down 40.1%) and mitigate knock on impacts on consumption

[9] HSE evidence suggests that 85% of inspected premises are meeting these requirements. We must urgently explore the non-compliant 15% and what specific steps we can take

8. There are variants of this package. You could decide to introduce a greater relaxation around item i., the planned return of crowds; small crowds could continue to go ahead with a range of mitigations such as closing pubs near the stadium (an approach that COVID O recommended last week). This might be off-set by tighter restrictions on hospitality. This package would also continue the current travel-corridors policy.[10]

9. The package is informed by the limited evidence available on the drivers of transmission. PHE outbreak data shows a clear surge in the last week in the number of respiratory infection outbreaks occurring in educational, workplace and hospitality settings.[11] For that reason, the package above focuses on these settings and on large groups. It also places greater restrictions on people who are known to be at higher risk of transmission, with stronger local interventions, and tougher enforcement of the quarantine and self-isolation policies. This package would sit alongside continuing local interventions, which now apply to 13 million people.[12] On their own, these interventions have not been sufficient to prevent the current national outbreak.

10. Package A is designed to change behaviour while minimising economic harm. UK GDP is still 11.7% below February levels, after a record fall of 20.4% in Q2 2020.[13] There is a risk that interventions may have a more significant impact than in March, given the weakened position of many firms and individuals, and would compound existing inequalities.[14] The most significant impacts of this package will be: the WFH instruction, which will impede the recovery in consumption in towns and cities[15]; the particular impact on those sectors which await the return of crowds on 1 October[16]; and an overall knock in economic confidence.[17]

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[10] **Travel corridors:** As prevalence increases in the UK, the effect of any imported cases from abroad is much smaller; any action to reduce international travel would have a severe impact on a distressed aviation and tourism sector without significant health benefits

[11] there were over 700 non-household outbreaks in the week to 7 September, compared with roughly 250 the previous week

[12] **Extent of local restrictions:** Across large parts of the North West and North East, hospitality businesses face restrictions and most mixing between households is banned. These interventions have no end-date.

[13] Any new interventions are likely to be more damaging than in March because we are now in a position of very high levels of firm distress, a very distressed labour market, economic vulnerability amongst the youngest and poorest in the economy and the UK's relative international position.

[14] **Impact on young people:** Falls in GDP and rises in unemployment are associated with increased poverty, increased mortality, increased morbidity – and permanently worse life chances for young people. The IFS estimate a recession of this scale could mean it takes 5-10 years for graduates to recover from the fewer prospects and lower paid jobs they now face. Their research also shows that on average, a 1% fall in employment leads to a 2% increase in the prevalence of chronic illness.
Equalities impacts: 22% of BAME individuals in July reported their biggest concern was having enough money during the 'stay at home' measures, compared to 13% of white respondents #(YouGov). Young people and low earners were disproportionately impacted economically by the measures introduced in March# and new restrictions on the hospitality sector would mirror this trend. Furthermore, if childcare service restrictions (including informal childcare) are re-introduced we can expect women to be disproportionately impacted.

[15] **Impact of WFH on London:** Consumption in London has recovered much more slowly than the rest of the country – as of the end of August, card spending remains down 22% on 2019 levels, compared to 6% across the UK. But London has been seeing a gradual recovery (from a trough of -50% in end May) that we should expect this package to impede.

[16] **Impact on sectors:** The precise impacts depends on the measure – a delay to reopening may be less harmful than scrapping the pilots altogether. The exhibition sector believes at least 30,000 direct jobs are at imminent risk if a reopening date is not announced soon, with further jobs at risk in spectator sports and club failures expected in football and rugby.

[17] **Economic confidence:** Survey data suggests 16% of total workers are currently on furlough with a large proportion of those - 6 percentage points - expecting to return to work in the next couple of weeks on the assumption that the direction of travel remains positive.

11. This package would be more significant than steps taken in France and Spain. In spite of substantial local action, both countries are recording around 10,000 new cases each day. Deaths are rising.[18] Yet neither France nor Spain have taken significant national action. This might suggest we should take a similar course for the UK. While Macron has not ruled out another lockdown, his rhetoric emphasises the need to 'learn to live with the virus' and to balance the COVID threat with economic and social considerations.

12. In addition to this package, the Government should develop a proposal for a much more severe enforcement policy. East Asian countries have bolstered their enforcement policies with pervasive surveillance of individuals to track their compliance. We could consider a similar tactic, although it would require a fundamental change in our approach to civil liberties and the right to privacy. This package will not be ready to deal with the current outbreak, but should be developed as an option for future deployment.

C. Options to go further

13. In addition to package A, the Government could go further with the aim of bringing R to 1 over the winter months.

14. **Package B: measures for the duration of winter.** Measures would be expected to apply until the end of March, and would broadly equate to the national application of those restrictions currently in place in the North East. They could comprise:
    a. Reducing household mixing. In the North East, the Government has prohibited mixing with other households in homes, gardens and in hospitality and leisure settings. We do not think, however, that this would be sustainable for the duration of winter. Softer options, such as moving to 'six people from two households', might reduce transmission, but would confuse the recent move to the 'rule of six';
    b. reducing the number of exceptions to the 'rule of six', going beyond Package A. This would mean prohibiting outdoor organised sport and licensed outdoor activity (either altogether or for over six people), allowing weddings only in exceptional circumstances, limiting attendance at funerals to 15, placing numerical restrictions on youth groups and support groups, and prohibiting standalone religious life-cycle events over with more than six attendees;
    c. requiring all hospitality to close 10pm-5am (although delivery would be permitted beyond this point); and

[18] **France**: ICU capacity around Marseille is approaching saturation; the infection rate there is 350/100k. Santé Publique France (the equivalent of Public Health England) says cases are growing 'exponentially'. **Spain**: In Spain, they believe their response of local, specific and fast action is working. They have managed to bring an outbreak in Catalonia under relative control. However, cases in Madrid continue to rise due to regional leadership intransigence to any local action and the apparent tolerance of the growing national infection may in fact be a consequence of constitutional impasse. Restrictions can only be imposed under a state of emergency, or if all 17 regions agree.

d. requiring all leisure to close 10pm-5am.

15. The Government could decide to combine some or all of these elements with Package A.

16. The economic impact of this package would be most significant in the hospitality sector. Indicative HMT analysis estimates that there are almost 84,000 restaurants and bars whose debt repayments are at risk; even if revenue returned to its pre-COVID levels and some rent debt is deferred, we may already be on track for around 26,000 restaurant and bar closures. That number would be higher under this package, though this might be mitigated through further economic support.

17. This package would be more stringent than other measures imposed in some European countries which have experienced greater increases in infections, hospitalisations and deaths. Spain currently permits groups of up to ten to assemble; France is continuing with mass events. However, and as above, their responses have not halted the growth in infections. Some countries within Europe (such as Belgium), and outside (such as South Korea, the Australian States, and New Zealand) have taken more stringent steps on hospitality venues, mass gatherings and curfews.

18. There is a risk that even a combination of Packages A and B would fail to bend the curve, leaving R above 1. As with all other options, we do not have the evidence to be able to provide a confident assessment of the impact on transmission. The type of 'soft' hospitality restrictions proposed in this package have only been deployed in the North East, so we do not yet know if they have had an effect.

19. **Package C: harder, temporary measures.** Measures would apply for three weeks and be intended to decisively drive down the rate of infections. They would comprise:
    a. banning all contact between households in all settings, indoor and outdoors, except for in work, funerals and school, with limited exceptions;
    b. advising against travel other than for work, school or to shop for food and other items, and encouraging people to work from home where they can;
    c. closure of leisure and personal care sectors; and
    d. closure of restaurants and bars, with an economic support package for the sector.

20. This package is lighter than the March lockdown. Non-essential retail, universities and schools would remain open. Nevertheless, the economic impact would be exceptionally severe. First, many firms are in greater distress than in March.[19]

[19] **Impact on hospitality and other sectors:** Even on current trends, initial analysis suggests that there are 84,000 restaurants and bars whose debt payments are at risk and, even with rent deferrals, we could see 26,000 closures. This package would close those

Second, the package would likely lead to further job losses; during the March lockdown, 1.6m jobs in hospitality were furloughed, as were 475,000 jobs in arts, entertainment and recreation. This unemployment has significant indirect health costs. Third, it would disproportionately affect younger adults, who were already the hardest hit by the first lockdown.[20] Fourth, it could make the UK an outlier from key European neighbours. The greater the divergence between the UK and other advanced economies, the greater the scope to harm international investment and confidence in the UK economy.[21] These economic impacts would need to be considered alongside the health costs of a continued growth in infections in the event that package A and B are deployed, but found to be insufficient. The economic damage of these measures is, however, a function of the severity of any measures and how long they persist; if delaying decisive action necessitates tougher and longer measures later, the damage, all told, will be greater.

21. There is still a risk that this package does not deliver the intended, decisive bending of the curve. Initial modelling from Warwick University found that the restrictions of June/July (when hospitality and many leisure venues were closed) might wind the clock back by the duration of the measures (i.e., 3 weeks of measures would wind the clock back 3 weeks); measures might need to be as severe as in late May to deliver a decisive reversal, winding the clock back 6 weeks on the basis of a 3-week intervention.[22] Ireland has introduced a 3-week package comprising: a prohibition on more than six people from two households for gatherings in homes and gardens, a ban on organised indoor gatherings, a move to takeaway or outdoor-only provision for hospitality and the closure of museums and galleries.

22. The Government could decide to introduce this harder, temporary intervention in October half-term, and announce that intent in advance. This would time the intervention to minimise disruption and maximise impact given schools are on holidays and the advanced notice may allow people and business to prepare. As above, however, this delay could see infections reach their April peak before action is taken.

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sectors, significantly increasing the risk and number of insolvencies.Hospitality employs 2.5m people, arts, entertainment and recreation employ 1m people, non-essential retail employs a further 1.3m, and 200,000 people work in personal care.

[20] **Impact on young adults:** the IFS estimated earlier this year that it could take 5-10 years for graduates to recover from the fewer prospects and paid jobs they already face. Under-25s make up 35% of the workforce in hospitality, 20% in arts, entertainment and recreation, and 20% in wholesale and retail. There would also be broader equalities impacts. For example, women make up 53% of the workforce in hospitality and 93% of employees in personal care.

[21] **International comparison:** These measures would be dramatically more severe than those imposed in other countries, particularly in response to the level of hospitalisations and deaths that we have seen in the last month. It would be most similar to the lockdown imposed in Melbourne in early July (initially announced and intended for six weeks, although this has been extended – in modified form – until at least late November).

[22] **Transmission impact of Package C**: Initial SAGE modelling is that closing pubs, bars and restaurants would reduce R by 0.1-0.2; closing personal care settings by up to 0.05; and closing gyms and fitness centres by up to 0.1 – meaning that these restrictions may not have a significant epidemiological impact in spite of their exceptionally severe economic impact.

23. The Government would need to decide what measures to apply after these temporary measures have been lifted:
    a. It could return to the current arrangements, with the expectation that this sees a return to growth in infections which in turn require further interventions. The Government could introduce a policy of ongoing 'circuit breakers', with such measures timed to coincide with school holidays through the winter, e.g., one starting just after Christmas, another coinciding with February half-term and perhaps one coinciding with the Easter school holidays.
    b. Alternatively, the Government could exit the 3-week intervention into a set of measures similar to Package B, with the aim of keeping the rate of infection flat through the winter, but doing so at a lower rate of prevalence and with more room for manoeuvre.

24. Finally, the Government could consider deploying these circuit breakers regionally; Packages A and B would be applied nationally, with Package C becoming an additional tool in the management of the regional variation of the spread of the virus.

PRIME MINISTER'S COMMENTS:

cc:	Simon Case	Patrick Curry	Henry Cook	Kate Josephs (CO)
	Martin Reynolds	James Slack	Cleo Watson	Simon Ridley (CO)
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