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COVID-19 STRATEGY 20(04)

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COVID-19 STRATEGY

COVID-19 WINTER PREPAREDNESS

PAPER FROM THE COVID-19 TASKFORCE

PURPOSE AND SUMMARY

1. The purpose of this paper is to:
    a. outline the COVID-related **challenges** the winter period is likely to pose;
    b. agree the **programme of work** to prepare for a further COVID-S discussion w/c 20 July to take the most significant strategic decisions on the UK's approach to COVID this winter; and
    c. agree the **planning scenarios** for which government should prepare now.

2. The planning scenarios proposed are: a more benign one with sustained low incidence through the winter; one where there is a significant winter resurgence but where the virus is largely controlled through the rest of the summer and early autumn, providing time to prepare; and one where there is a resurgence through the summer, we go into winter with already challenging conditions, then face acceleration. To prepare, we propose ten strands of work over the next twelve weeks. It is particularly important that we submit this preparation to 'exercise' by August, and that we have as robust as possible an epidemic control function before winter.

What challenges and opportunities does Winter present?

3. We have made significant advances against the virus in the last three months, at great cost. Incidence and deaths are very substantially down from peak, we know more about the spread of the virus, and we have increased our ability to manage the health impacts. However, progress for society and individuals against the virus is fragile, and the economic and fiscal position is significantly worse than at the beginning of the pandemic.

4. Despite the UK's success in reducing the burden of disease significantly from the spring peak, and even on the assumption that this success continues through the remaining summer months, winter poses a more difficult set of conditions. The first set of reasons relate to the characteristics of the virus itself:
    a. **Other illnesses** will be more prevalent. Simultaneous infection with illnesses that cause coughs and colds are likely to increase individuals' vulnerability to additional infection, particularly among the elderly. This could in turn make airborne COVID transmission more likely through increased aerosol production;
    b. **The world may face a second wave;** CMO has advised that second waves of disease pandemics are common. Even if the UK is not experiencing high prevalence, the effects on the UK of other countries seeing a resurgence – for example on supply chains – may be material;
    c. **The UK may see a re-seeding from abroad;** we currently see rising trajectories for example among a number of large US states, across Latin America and developing Asia; and
    d. **The virus itself may be more dangerous, or may mutate;** we do not currently understand very well how a change in weather affects the virus. We think the natural set point for R will be higher in winter than the summer. Scientific evidence is limited, but UV light means surfaces exposed to the sun will be less hospitable to the virus in the summer months. It is likely that colder, damper conditions in winter may provide a more hospitable

environment for the virus, for example as we have seen it able to spread readily in refrigerated meat-packing factories.

5. In addition, a second group of reasons relate to Government's ability to manage any resurgence:
    a. **Health systems will be more vulnerable**, for example, the NHS is far closer to capacity even in a typical flu season, and this will be made harder with capacity currently lower as a result of steps to reduce nosocomial infections. There will also be fatigue in the system from the first wave;
    b. **Test and Trace will be harder to operate if prevalence of COVID is very high.** If tens of thousands of people are testing positive every day and each has tens of contacts, likely consequences include (i) pressure on capacity among call handlers making it difficult to trace every index case and reach every contact, (ii) millions of people told to be in isolation at any time, and (iii) many citizens being called upon to isolate in quick succession, severely disrupting livelihoods and reducing compliance. **Even if the prevalence of COVID is not high, testing capacity could be exceeded** because many winter illnesses have symptoms similar to COVID (leading to diagnostic uncertainty). If those people cannot all be tested quickly, we may need to start seeking to isolate the contacts of suspected cases rather than the contacts of confirmed cases (as today), hugely increasing the number of people in isolation at any time;
    c. **Our government debt levels are higher than they were** so our ability to finance measures that offset the effect of the most stringent restrictions on businesses and individuals is much more limited than in March, and given worse household and business balance sheets, are likely to be less effective;
    d. Winter is more likely than summer also to contain other **unexpected and challenging natural events** e.g. seasonal flooding or storms which may lead to homelessness, or road access problems in more isolated parts of the country;
    e. **The stabiliser of the long summer school holiday is not available** – and children will already have missed months of education;

f. **Crisis fatigue will be higher** amongst Ministers and Officials; many people have been working at 'crisis' tempo for a long time; we have used up a lot of our resilience; and

g. **Supply chains may be stressed** if a simultaneous surge in the Northern Hemisphere (3b above) causes decreased willingness from our key trading partners to export vital medical equipment. This might be compounded by any adverse supply chain effects resulting from our transition to our new relationship with the European Union at the same time.

6. The third group relate to how the economy, public and businesses may react:

a. **The economic baseline from which we are starting is now significantly lower than in March.** The latest ONS data implies UK output in April was 26% lower than February – effectively reversing over 18 years of economic growth in 2 months. Underneath this headline figure, the labour market and businesses are in a considerably worse position than at the start of this year. There have been more than 3 million UC claims since the start of the crisis, even when almost 9 million jobs have been propped up by the furlough scheme. And businesses in many sectors are likely to have taken on substantial debt;

b. **Social contact** is less comfortable outdoors during the cold months. Our natural 'release valves' for socialising outdoors being less available, the resulting increased indoor socialising (and the fact that, for example, fewer windows will be left open to provide ventilation even for the same amount of indoor contact) makes transmission more likely. The Government has designed the NPIs to operate with this in mind – these assumptions will need to be revisited for Winter;

c. **The population is fatigued**; we know that globally, young people in particular are becoming an increasing source of transmission (e.g. in the southern US states) – we don't know how far people will be willing to comply as stringently with further social restrictions;

d. **EU Exit.** During the same period, we will also be asking businesses to make significant changes to their business models and be experiencing some

operational disruption as a result of transition; this will be more acute if no future relationship is agreed.

7. There are two principal components to preparing for Winter: acting to **reduce the likelihood or severity** of the most damaging scenarios through pre-emptive mitigation; and preparing effective **reactive measures** to manage any scenario that does arise as well as possible.

8. We do not have long to prepare, and many of the measures we might wish to have available to us will have long lead-times. For example, even re-stocking PPE supplies requires us to agree what NPIs we may want to deploy in any second wave, which of them are enabled by PPE, how those demands should be prioritised and that tells us what PPE to prioritise obtaining, by when. Currently, only 24 of 47 plans extend beyond the end of August, only 7 to the end of the year (see Annex B).

9. As well as addressing the challenges, we should also acknowledge where we are in a better position than in March. Our knowledge (about the virus, our ability to act, the tools available, what has and has not worked) is greatly advanced compared to March, and we also have approaches from around the world to compare and learn from.

10. In particular, we should build on what we have learnt and achieved so far, including:
    a. **Planning.** In February the novel nature of the virus meant we had to innovate and develop interventions at pace in response to events. This time, we can use the intervening weeks until Winter to better prepare our response and more thoroughly exercise it in advance;
    b. **Strategy.** Over recent months the NPIs were blanket and whilst not the most stringent in Europe, they were highly restrictive of individuals' freedoms and the most economically costly (given UK reliance on e.g. retail and hospitality). We now know more about their effectiveness and impact, and should now be able to develop a more nuanced set of restrictions that maximise the

epidemiological effect (i.e. reduce to the greatest extent possible the number of *harmful* social contacts) at lower economic and social cost;

c. **Data and analysis.** Some of our new analytical capabilities have served us well – for example the operational dashboard and the JIO/FCO international monitoring effort. However, our analytical efforts remain challenged by the need for better and more granular access to and use of operational data, the fragmented capability across departments and the extent to which rigorous economic and health analysis is integrated to inform decision-making;

d. **Structures.** We have developed at pace a range of novel structures – from the PPE Buying operation to the new JBC and TTCE programme. We also have a range of existing organisations, like PHE, employing much of the UK's epidemiological expertise. There is now scope to build on these structure, and rationalise and consolidate where necessary to ensure all the operational structures are coherent and effective;

e. **People.** Individuals have expended extraordinary effort but we have already experienced significant churn amongst senior staff and expect that to increase over the next two months; we need to prepare early to ensure there is a stable, resilient senior team in place across all elements of the UK Government response. We also have a shortage of skilled junior employees e.g. across TTCE and enforcement activities;

f. **Communications.** We are currently employing a communications approach that at Departmental level, relies on extensive guidance to individuals and businesses, but that is quite fragmented; we will need a means of ensuring we can update this quickly to respond to changing circumstances, and seek opportunities to make our messaging simpler and clearer, even while communicating more complex messages about what we are asking individuals to do;

g. **LAs.** The interface between central government and Local Authorities, and the capacity and powers of LAs themselves, is critical to improve given the reliance our local outbreak control measures will place on LAs. In particular, we need to ensure that LAs are empowered to grip problems in their areas, with all necessary permissions, information and accountabilities;

h. **Devolved Administrations.** Although the UK is a single biosecurity zone, with incidents like those seen in Wrexham affecting citizens across the country, we currently operate a fragmented set of public health structures and decision-making, duplicating effort and risking confusion; for example, we cannot effectively contact trace across borders. There is scope to consider whether and where a UK-wide response may be more appropriate and what this would require; and

i. **Decision-making and governance.** Decisions on lockdown have been made at pace. We can further improve our overall decision-making and governance of the imposition and easing of local and national restrictions, to ensure the decisions are quick, effective, as evidenced as possible, and coherent, together with the regulatory approach we are taking to the full suite of measures. These structures must be capable of responding to new data, analysis and evidence as they emerge, having anticipated as many incident types as possible, rather than reverting to applying by default interventions that were developed at speed earlier this year.

II. What should be our programme of work to prepare as effectively as possible?

11. To address both parts of the challenge – preparing to reduce the likelihood or severity, and preparing reactive measures – we need 10 strands of work delivered to the timeline at Annex A.

12. **Strand 1: International diagnosis.** The JIO, SAGE and the Defence Concepts and Doctrine Centre should conduct a significant diagnostic exercise to assess what the UK can learn from the response of the most successful nations, particularly on communications, regional responses, testing and contact tracing, limiting spread in critical settings, and levels of hygiene and face coverings.

13. **Strand 2: Strategy.** The COVID Taskforce should author, supported by all relevant departments, a playbook of options to address each scenario, across the full range of

government interventions.[1] It will need to set out options for our thresholds, triggers and decision-making, including advance decisions for Ministers on our overall risk appetite. It should be informed by lessons from recent months from the UK and internationally and should:

a. Design the least economic and socially damaging interventions, including consideration of:
    i. Targeting, including super-spreading / cluster events;
    ii. Personal risk and segmentation; and
    iii. The regulatory approach including the extent of mandation;
    iv. Ensuring our approach is clearer and unambiguous so it is easier for the public to understand and 'self-police', and easier for the police to enforce.
b. Include the design (led by HMT) of economic interventions, if necessary, including any necessary economic support to individuals who are affected by NPIs directly;
c. Seek a simpler and more dynamic set of NPIs, this could include, for example switching to a smaller number of rules that apply across sectors and activities, and in a more targeted range of locations, to allow for a less blanket but also nimbler approach that is more easily understood by the majority of the population;
d. Use a 'design authority' sitting within the COVID Taskforce to agree ongoing measures, similar to the 2m review approach. This will balance economic, health and social factors; and
e. Review relevant powers and legal frameworks, including around data sharing and ensuring complete clarity over who can take what action, so response can be quick and decisive.

14. The playbook will be a "phase two" evolution of the near-term reactive measures we need in place now, but will evolve to cover winter – adding further options we could

[1] This should include but not be limited to NPIs and social distancing measures, health, education, communications, enforcement and transport.

have ready by then, and removing seasonal-specific measures that will only work in the summer.

15. **Strand 3: Exercise.** To ensure the playbook measures are realistic, and that the operational delivery required to implement them are in place, it is vital that they are sufficiently robust. To this end, MoD should facilitate an extensive programme of desktop and real-world exercises through August, after which the plans should be adapted to incorporate the findings. This should include stress-testing LA and LRF capabilities and assessing their readiness.

16. **Strand 4: Operational planning.** Departments should prioritise developing operational plans to cover all three scenarios in this paper. The COVID Taskforce should convene a cross-government programme board to oversee the development of these plans and ensure they are coherent, of high quality and delivered quickly. The COVID Taskforce will prioritise:
    a. Ability of the **TTCE** system to function throughout the winter season and especially to tackle high-risk settings;
    b. Ability of **critical workforces** to cope with the disruption of protracted periods of isolation;
    c. The **JBC's** ability to quickly identify emerging risks in different places and settings, and escalate decisions appropriately and in good time;
    d. The provision of **PPE** and other critical health supplies;
    e. Readiness of supply and deployment of any novel **vaccines and therapeutics**;
    f. Strategy for how we treat **people with immunity**, if studies show this is a viable approach;
    g. The ability of **care homes** to effectively protect residents and staff;
    h. Development of proposals to increase home care as a potential tool to decrease cross-infections and mortality among the elderly;
    i. Preparedness of hospitals to **switch capacity to deal with any surge** in cases;

j. Preparedness of hospitals and other health settings to limit **nosocomial infections**;
k. Our approach to shielding or otherwise protecting the **most vulnerable**;
l. Readiness of the **education system** to welcome back pupils with a full learning offer;
m. Ability of the **transport system** to function in all scenarios;
n. Ability to **implement, monitor and enforce** any social restrictions in place;
o. Ability to implement any **economic interventions** proposed in the new playbook.

17. To accelerate the development of this planning, the COVID Taskforce will convene a full-time, multi-day planning workshop in mid-July to ensure all the key figures devote sufficient capacity as a group to preparing a coherent and comprehensive set of plans.

18. It is important that these plans are developed and managed as a coherent portfolio; for example, if the solution to keeping schools open requires more PPE, or places particular requirements on the transport system, those are important dependencies to manage. Other examples include: the need to manage PPE outside clinical settings, including how to send demand signals, how to allocate and distribute supply, and what PPE requirements are sufficient to avoid the need for contacts of infected people to isolate; and coordinating both between settings (e.g. is guidance coherent between settings, and with approaches to communications and enforcement).

19. **Strand 5: Supply Chains and Stockpiles.** DIT, MOD and Lord Deighton should marshal Project Defend and Defence Logistics resource to conduct a six-week Government-wide audit of critical winter stockpiles and the security of inbound supply in the scenarios given in this paper.

20. **Strand 6: Communications.** CO communications, No. 10 communications and the COVID Taskforce should develop a plan for an integrated communications hub and Winter 'influence' campaigns against the scenarios in this paper, including a

centralised process to simplify, update and maintain the various guidance publications, with a single lead editorial board for consistency. This will include research on the effectiveness of the messaging from the first peak, and draw on the international diagnosis strand.

21. **Strand 7: PHE/TTCE/JBC.** Ensuring the strongest possible disease control function before winter is an absolute priority. DHSC's Permanent Secretary should prepare options for an integrated operating model for PHE, the JBC and the TTCE programme, to be operable by end September. This should include consideration of a UK-wide approach across the Public Health Authorities in each DA. By September, at the latest, the system should be able to identify and escalate emerging issues at a speed that is in line with international benchmarks.

22. **Strand 8: Key person staffing.** COVID Taskforce, Cabinet Secretary and CSHR should map the central COVID leadership roles across all Government departments and agencies, including all SCS positions, and ensure:
    a. All key posts are filled by end September with suitably qualified personnel who are committed to remaining in post for at least one year unless the crisis averts before that;
    b. The COVID Taskforce analytical function is further developed and integrated into policy making to better inform decisions with critical health and economic analysis and modelling, including consideration of any changes to the SAGE operating model;
    c. Responsibilities for all SCS working on COVID, in departments and the centre, are clear, non-duplicative and shared across Government; and
    d. Guidance is promulgated across all departments setting out the remits, permissions, accountabilities and access to knowledge of each part of the effort, in order to effectively distribute authority to act.

23. **Strand 9: Devolved Administrations and Local Authorities.** Six-week project to consider further ways to improve the effectiveness of working on COVID-19 between

UK government and DAs, and UK government and LAs (led by DHSC with UKGG and MHCLG respectively).

24. **Strand 10: International Risks.** JIO with FCO should outline where COVID's continued rise poses second order threats to the UK over the winter period, and when they are likely to arise. For example, this will include current hotspots (e.g. Latin America) but also renewed outbreaks in countries where it was previously well under control (e.g. Israel)

25. The committee should also note work on NHS capacity: decisions have now been taken here. The Prime Minister has asked that the NHS's winter plan should include continuation of the Nightingale and independent sector capacity, and of appropriate arrangements to ensure that medically fit patients are discharged swiftly, so long as the data from the response to date indicates they have been effective. The Prime Minister also announced an expansion of A&E capacity on 30 June.

Do you agree with this programme of work?

III. What should be the scenarios against which departments should plan?

26. To develop effective plans that cohere with one another, departments need to work to an agreed set of scenarios. These involve taking some risk judgements: to prepare for the widest range of possible outcomes will be more expensive and dilute our efforts, but would reduce the risk of having to react without adequate preparations. While there will be a large number of more tactical assumptions for individual departments to make, we need to take collective judgements on:
    a. **when** we need to be ready by, and for how long a further 'crisis' period might endure;
    b. the **magnitude** of the problem we need to address; and
    c. how far we need to plan for a **concurrent** event (e.g. a flu pandemic).

27. We have developed three draft scenarios covering the range of potential outcomes we may encounter: an **optimistic scenario** where UK incidence has continued to decline and the biggest risk is posed from events overseas; a **significant winter resurgence** where incidence is broadly controlled until the Autumn but then accelerates; and a scenario with a **pre-winter peak combined with a significant winter resurgence** – the most challenging scenario. Figure 1 represents these pictorially and Annex C contains illustrative representations.

28. These scenarios are pre-mitigation – i.e. they are what we want to ask departments to plan to avert or manage. This means that the strategy COVID-S will consider in July will set out what it would take to reduce the likelihood or severity of each eventuality and the likely residual impact.

29. In all three scenarios, we assume (in addition to no vaccine or radically game-changing therapeutic):
    a. Winter plans must be in action no later than 1 October and we must plan to sustain the operational effort until at least June 2021;
    b. The UK must also be prepared to concurrently tackle the risks laid out in the National Risk Assessment, the most significant of which – for these purposes – is a pandemic flu emerging concurrently, but noting other common UK and international events we may have to tackle concurrently – from Winter planning, to increased tensions over Hong Kong reducing China's willingness to prioritise the UK for critical supplies at short notice;
    c. A 'normal' winter flu season where up to 500,000 people a day (at peak) develop flu or flu-like symptoms;
    d. Supply chain issues across a range of policy areas are likely in the event of continued, or increased, incidence of the virus overseas, particularly in Asia;
    e. The economy will be in a much more vulnerable state. Under the OBR reference scenario, unemployment in Q2 could be as high as 10% and in Q3 as high as 8.5%. Many businesses have taken on debt and used up reserves – and many of the hardest hit sectors disproportionately employ lower earners – such as hospitality and retail;

f. The government's fiscal position is significantly worse than at the start of 2020, and there could be limitations to the extent we can finance support schemes; and

g. Changes will take place to the UK's relationship with the EU at the end of the transition period.

30. Note these dates are longer than the typical NHS performance definition of December to March because of the substantially increased risks of NHS pressures from COVID-19 cases in the shoulder seasons either side.

31. Importantly, the various thresholds (e.g. mobility, or case numbers), as well as being *pre-mitigation*, are *not* policy decisions about what will happen at particular points in time, but are indicative to help Departments think through the scenarios. Policy decisions on changes in alert levels and any responses will be worked through in due course, with full scrutiny and advice.

Figure 1: Representation of the Three Scenarios

32. **Scenario 1: Sustained low incidence.** In this scenario, we assume incidence continues to decline at broadly the current rate, between 2-4% a day, such that we reach Alert Level 2 before Winter, and in this period see only isolated outbreaks requiring local interventions. However, we also assume that COVID continues to spread elsewhere in the world, particularly through Latin America, North America and South Asia throughout the Winter, presenting second-order consequences for the UK and requiring continued travel restrictions to and from high-risk countries. In this scenario:
    a. By 17 July new daily hospital admissions are sustained at fewer than 0.5 per 100k per week (or 48 per day across the UK);
    b. Mobility and normal social contact levels return to above 80% of pre-COVID levels from 1 September;
    c. Even in this scenario, it is unlikely that the economy will be able to return to full capacity. For example, social distancing rules will continue to constrain both demand and supply and potentially weigh on productivity. Businesses may be looking to repair balance sheets, having taken on debts and are facing significant re-start costs, affecting their ability to recover. While household finances overall are healthier, some consumption that has not happened this year is permanently lost, and consumer demand may remain dampened as constraints on their ability to consume and uncertainty around the virus persist;
    d. Isolated outbreaks, largely re-seeded from abroad, require frequent targeted interventions, at the scale of isolating individuals and specific premises;
    e. Requirements for 1m+ social distancing are removed by September on public transport. Distancing in other locations and requirements for face coverings on public transport remain well into 2021;
    f. No specific high-risk cohorts are asked to isolate / shield; and
    g. Quarantine at the border is required for those arriving from high-risk countries.

33. **Scenario 2: Significant winter resurgence, but no significant summer resurgence.** The virus is broadly controlled through the remainder of the summer though with frequent local responses needed. But into the Autumn, the Alert Level returns to 4 as outbreaks are significant enough that they generate widespread community transmission that, unchecked, runs the risk of increasing stress on health systems at least equivalent to that faced in March and April. In this scenario:
    a. Incidence flattens to remain broadly at current levels from July to October, but with repeated localised outbreaks occurring such that the country remains at Alert Level 3;
    b. From November onwards we face the beginnings of a second peak, with daily incidence rising above 2,000 per day confirmed cases and new hospital admissions to above 5 per 100k per week by the end of November. We therefore enter the Winter period with a severe resurgence requiring consideration of measures with a similar epidemiological effect to those taken in March;
    c. Mobility and social contact levels steadily rise from 50% now to above 80% by October, before the Winter peak requires a return to 20-30% pre-COVID levels from November;
    d. The economic impact of a winter resurgence will depend on the public health measures deployed. If similar measures to March are re-imposed, it will lead to at least as significant a fall in economic output to the first wave – where the fall in output from February to April so far has been around 25%. However, because we are starting from a lower baseline, the effect will be much worse, with considerably higher risk of scarring to the labour market and likely significant business insolvencies. Business and consumer confidence are likely to take a much greater hit, and take longer to recover. There are risks of double hits to some sectors and also new sectors/trade being affected (e.g. in sectors/businesses reliant on winter seasonal trade).[2] ;
    e. Social distancing rules are reviewed during the Winter peak; requirements for face-coverings increase, and COVID Secure Guidance continues well into

[2] HMG has not yet considered the economic effects of using different tools we need to consider to control the virus – but will consider their impacts through the process set out

2021. Public compliance wanes with each major new outbreak; this is made worse by the winter conditions, and with increased socialising indoors; it is difficult to respond to winter emergencies (e.g. flooding which could affect specific communities) whilst maintaining social distancing; and

f. A moderate number of current low and medium-risk countries see similar resurgences. A mandatory 14-day quarantine is in place for those who have recently been in high-risk countries.

34. **Scenario 3: Pre-Winter peak and significant winter resurgence** Incidence stalls through July and then increases as adherence to social distancing and COVID Secure guidance wanes. As early as late July, the Alert Level returns to 4 as outbreaks are significant enough that they generate widespread community transmission that, unchecked, runs the risk of increasing stress on health systems at least equivalent to that which occurred in March and April. In this scenario, we assume:

a. Incidence remains broadly at current levels through early July, but with localised outbreaks occurring throughout this period;

b. As early as mid-July we face the beginnings of a second peak, with daily incidence rising above 2,000 per day confirmed cases and new hospital admissions to above 5 per 100k per week. From November onwards, daily incidence rises further to over 3,000 per day confirmed cases;

c. Mobility and social contact levels steadily rise from 50% now to near 70% by mid-July, before the pre-Winter peak requires a return to 20-30% pre-COVID levels from August;

d. As in scenario 2, the economic impact will depend on the measures put in place to contain subsequent outbreaks. That said, multiple resurgences will have ever deeper economic impacts and the risk of long-lasting and permanent damage to the economy is higher still;

e. Social distancing rules are reviewed during the August peak; requirements for face-coverings and COVID Secure Guidance all continue well into 2021. But public compliance steadily wanes, exacerbated by each major new outbreak; winter conditions weaken compliance; delivering public services is increasingly

difficult in the context of long-term NPIs; it is difficult to respond to winter emergencies (e.g. flooding which could affect specific communities) whilst maintaining social distancing; and

f. A moderate number of current low and medium-risk countries see similar resurgences. A universal, mandatory 14-day quarantine is in place.

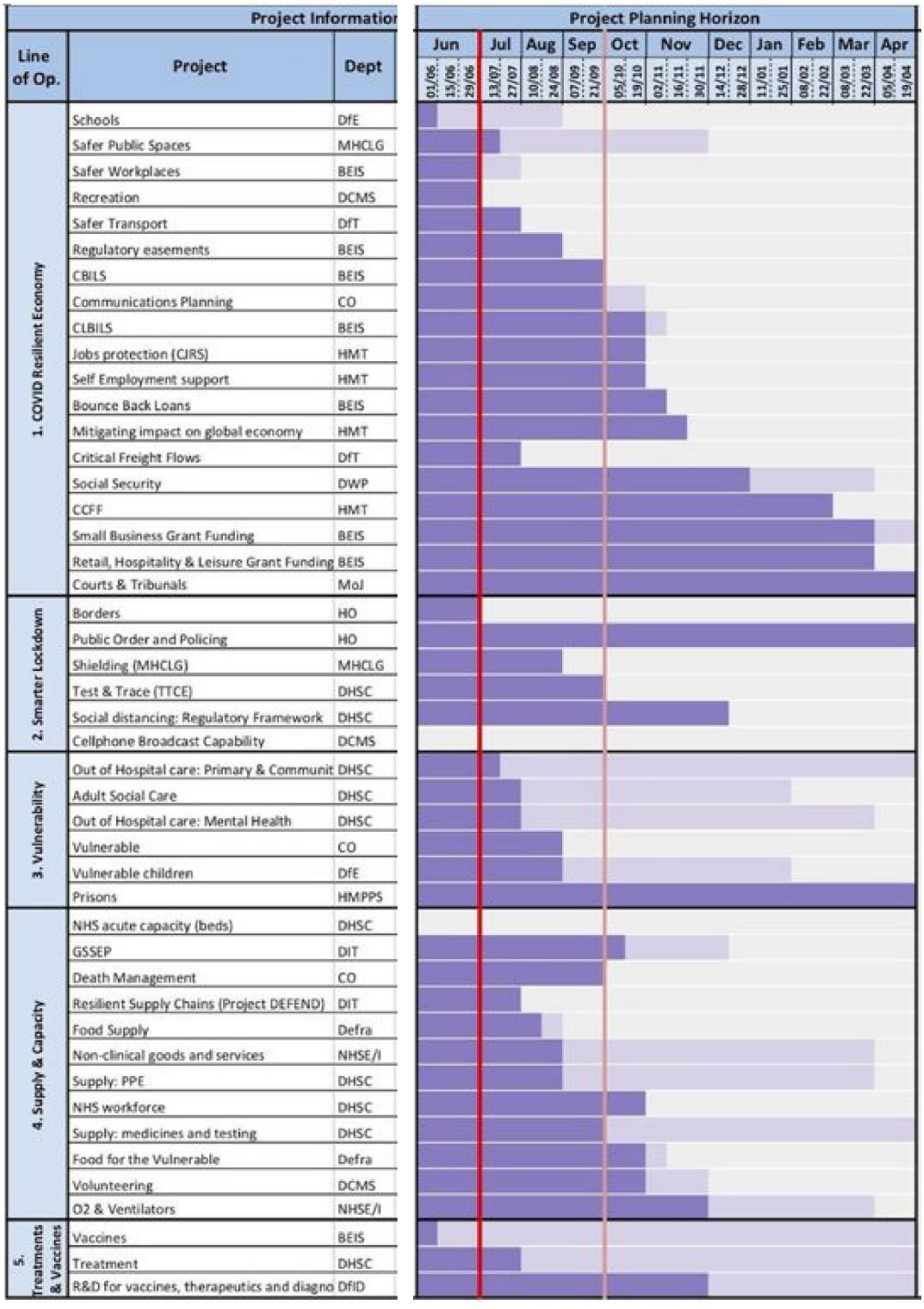
Do you agree Departments should prepare for these three scenarios?

Do you agree CCS should render Scenario 3 into a 'reasonable worst case' assumption for LRFs?

ANNEX A: High-level timeline

Week	Activities
1 w/c 29 Jun	COVID-S Discussion. Launch work programme (all strands). Design panel for smart NPIs meets for first time.
2 w/c 6 Jul	Departmental work on operational planning (Strand 4).
3 w/c 13 Jul	Initial version of playbook (Strand 2). V1 of operational planning complete by departments by end of this week.
4 w/c 20 Jul	Taskforce brings playbook and V1 operational planning together. COVID-S Follow-Up Discussion on key 'hinge' questions. Operational planning continues by departments.
5 w/c 27 Jul	Official workshop to bring together exercise of playbook and V1 planning status, as well as additional scientific input including from SAGE and NERVTAG. Operational planning continues by departments.
6 w/c 3 Aug	Updated version of playbook and updated status of operational planning. Operational planning continues by departments.
7 w/c 10 Aug	Last date by which reviews (Strands 1, 5, 6, 7, 8, 9, 10.) must report back; then feed into ongoing iteration of operational planning and playbook. Operational planning continues by departments.
8 w/c 17 Aug	Round of exercises (Strand 3), followed by steers to (a) departments on refining plans, and (b) Taskforce to further refine playbook. Operational planning continues by departments.
9 w/c 24 Aug	Refinement and delivery of operational capability / delivery and playbook.
10 w/c 31 Aug	
11 w/c 7 Sep	
12 w/c 14 Sep	
13 w/c 21 Sep	
14 w/c 28 Sep	Preparation complete. Winter period begins.

ANNEX B: Planning Status



KEY	Robust planning assessed	Limited plan data available	No Planning available

ANNEX C: Illustrative Scenarios

These sketches are presented to give Ministers as an illustrative aid to the paper. They are not planning assumptions and have not been shared with departments for agreement.

1 - Sustained low incidence

Over the Summer closed sectors of the economy are allowed to open up in compliance with C-19 secure guidelines and permissible social contact is increased. Public compliance is high. The capability of TTCE is scaled up, including rapid deployment of tests with results available in 24hrs.

By the end of the Summer all sectors of the economy have been allowed to reopen. Supported by the successful operation of testing and contact tracing through July and August, R is kept below 1 and caseload falls steadily. Small local outbreaks occasionally occur however an efficient JBC operation controls the spread of the infection with targeted interventions. We enter autumn with a sustained low caseload, and an economy that is beginning to return to normal.

By November, infection remains low, and is not significantly impacted by the onset of colder weather. Wider social distancing rules mean that general flu cases are significantly reduced. The prevalence of some seasonal cold and flu cases means that there is increased demand on TTCE, however the programme is able to successfully handle the pressure.

Entering the new year, the economy tentatively begins to recover. Still, social distancing measures are in place for the long term, and adapting to a socially distanced economy means many sectors operate below capacity, with higher than pre-crisis levels of business closures and unemployment. The legacy of higher household and business debt and uncertainty around the future mean overall spending remains low. Demand for essential goods and services remains stable but demand for discretionary purchases, leisure activities and property is at significantly below pre-crisis levels.

While infection remains low and TTCE operates effectively, the greatest risk posed to national recovery is the reintroduction of the virus from overseas. The Government introduces new schemes at the border to ensure that all incoming visitors understand how to use TTCE and are able to isolate if needed.

Approaching the one-year milestone the Government is frank in public communications that some form of social distancing will need to remain until a vaccine is found or until incidence reaches a very low level. While shielding is no longer a formal Government policy, a large number of people in the shielded category have continued to take additional precautions and remain under psychological and physical stress from prolonged isolation. Economic pressures are hardest on those groups and regions which were already vulnerable or disadvantaged, leading to some long lasting damage and entrenched inequalities. International efforts to contain the pandemic are broadly effective in developed countries.

2 - Significant winter resurgence

Over the Summer closed sectors of the economy are allowed to open up in compliance with C-19 secure guidelines and permissible social contact is increased. Public compliance is high.

By the end of the Summer all sectors of the economy have been allowed to reopen. People and businesses begin to feel that life has returned to normal and compliance begins to fall. Businesses begin to prioritise increasing their capacity and as the weather gets colder groups of more than two households are regularly meeting indoors. Throughout the late summer and into autumn local outbreaks regularly crop up requiring intervention from the JBC.

November sees a sharp increase in incidence. The virus is seasonal and the cold weather means it survives longer in a number of environments and people are more susceptible to respiratory illness. A bad flu season puts strain on the NHS and some trusts face major difficulties keeping C-19 and flu patients isolated from each other. More people are declaring symptoms consistent with C-19 and TTCE struggles to manage demand for testing and keeping up contact tracing. Compliance with isolation falls as people are reluctant to miss work in a struggling economy when they feel healthy.

The JBC implements a number of strict regional lockdowns. Several businesses incur serious losses after having recently invested money in reopening. The spread cannot be contained and social contact is curtailed on a national level and some high-contact sectors are closed nationwide. Anyone who was asked to shield in March 2020 is told to do so again.

In March 2021 the incidence rate is still high but R is below one and there have not been any new spikes in the virus. Any national restrictions are lifted. The economy has suffered serious further damage from the re-imposition of some NPIs. Low confidence and concerns for safety mean economic recovery is slow moving. Economic support packages are needed to prevent some sectors from collapsing entirely.

People in the shielded category have continued to take additional precautions and remain under psychological and physical stress from prolonged isolation. Economic pressures are hardest on those groups and regions which were already vulnerable or disadvantaged, leading to some long lasting damage and entrenched inequalities.

3 - Pre-winter peak and winter resurgence

Through July, most closed sectors of the economy are allowed to open up in compliance with C-19 secure guidelines and permissible social contact is increased. The 2m rule is reduced to 1m meaning significantly more people are gathering in indoor spaces.

The C-19 secure guidelines prove difficult to enforce. Retail and hospitality attempt to maximise their capacity and mitigate risk by encouraging use of face masks and hand sanitizer. Compliance falls as people begin to feel that life is returning to normal and businesses are incentivised to push the boundaries on the guidance. Groups of more than two households are regularly gathering indoors and hospitality venues are not enforcing limits on mixed household groups.

The rate of transmission begins to creep up through the late summer and TTCE is not successful at managing the outbreak. Too few people are willing to name contacts and many are unwilling to comply with isolation strictly, so asymptomatic spread increases, undetected. The JBC initiates a number of local lockdowns across the country. The reduced shielded cohort is told to isolate again. Restrictions on social contact are re-imposed nationally and national communications make clear that continued disregard for the guidance may trigger business closures on a national level.

As schools return there is a renewed plea to the public to exercise caution. The local level lockdowns and curbed social contact mean incidence remains high but begins to plateau. We enter the winter with a high incidence rate and low compliance as the public grows

fatigued with ongoing restrictions. Throughout winter the JBC regularly implements new lockdowns across the country, but they become increasingly difficult to enforce.

Significant restrictions are in place through the winter. In spring 2021 the incidence rate is beginning to fall and there are no new spikes in the virus. The economy continues to shrink as confidence is low and safety concerns make people reluctant to go out and spend on retail and hospitality. Economic support packages are needed for some sectors to prevent some sectors from collapsing entirely.

The shielded population remains under psychological and physical stress as their activity remains severely curtailed. Economic pressures are hardest on those groups and regions which were already vulnerable or disadvantaged, leading to some long lasting damage and entrenched inequalities.