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RESTRICTED HANDLING

SCOTTISH CABINET

EMERGING EVIDENCE TO INFORM COVID-19 RESPONSE

PAPER BY THE CABINET SECRETARY FOR HEALTH AND SPORT

Purpose

1. Cabinet is invited to note the following update on coronavirus (COVID-19) and consider the impact across Scottish society of introducing the three mitigating actions likely to be agreed at the UK Cabinet Office Briefing Room (Ministerial) meeting (COBR(M)) on Wednesday, 11 March. These actions will not eradicate the issue but are the most effective means available to delay and reduce the epidemic peak, to reduce the impact on health and social care and other critical services, and reduce mortality.

2. These issues were discussed at the Scottish Government Resilience Room (Ministerial) meeting (SGoRR(M)) on Monday, 9 March. The Chief Medical Officer (CMO) and Deputy Chief Medical Officer (DCMO) will be in attendance at Cabinet on Tuesday, 10 March to provide an update on the latest epidemiological position.

Timing

3. **This paper is due to be considered at Cabinet on Tuesday, 10 March.** The First Minister will be attending COBR(M) on Wednesday, 11 March, where it is likely a decision will be taken to implement these measures.

Background

4. COVID-19 is a novel coronavirus that originated in China but has spread across the World. In the UK the number of confirmed cases has been increasing and the following outlines the position as of 8 March:

	Tests concluded	Confirmed Cases	Deaths
England		321	3
Scotland		23	
Wales		6	
Northern Ireland		12	
Total		**362**	**3**

5. A COVID-19 action plan was published last week which set out the various phases in which the UK would respond to any outbreak. This included measures to *contain*, *delay* and *mitigate*. Due to there being no vaccine or validated anti-viral treatment, there is currently no *prevent* or *treat* option. Although we are currently in the contain phase, it is likely we will be moving soon to delay which will include not testing individuals who are symptomatic and ceasing all contact tracing activity. The decision to move will be guided by evidence provided by the Scientific Advisory Group for Emergencies (SAGE) who advise both the UK and Devolved Governments. The latest information they have provided outlines that the reasonable worst case scenario (if no mitigating actions were taken) would result in the following:

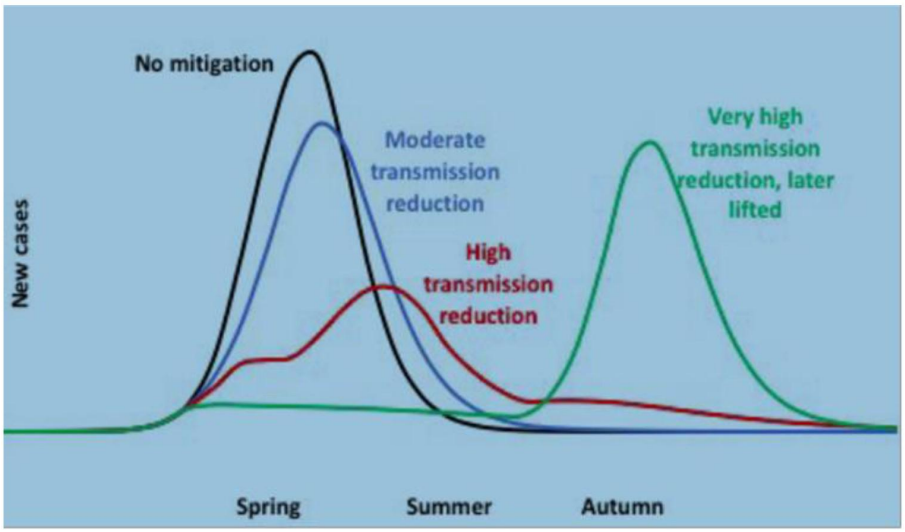
- 80 per cent of the population would be infected, with 50 per cent displaying symptoms;
- Eight per cent of those infected would require hospitalisation requiring an average stay of between eight and 16 days;
- Of those hospitalised 19 per cent will require ventilation (i.e. Intensive Support);
- Overall fatality is one per cent, but of those in hospital this rises to 12 per cent and 50 per cent of those in ICU; and
- The over 80 year old cohort is likely to be disproportionately affected with a 20 per cent fatality rate.

6. Given this level of demand would quickly overwhelm the NHS, SAGE have reviewed a range of options as set out within **Annex A** and recommended that three are implemented in a phased approach (see **Annex B**).

7. Based on the current scientific advice, we are not, at this stage, proposing to progress the options on school closure and large scale events. However, this will be kept under review. Also, while the science may not recommend the cancellation of large scale events at this stage, there may be a problem with the credibility of a public message that advises significant restrictions of personal behaviour while allowing business as usual for events.

8. The three proposed measures would have the greatest cumulative effect in delaying and reducing the impact of the epidemic, specifically, to delay the peak by two to three weeks, reduce bed demand in hospitals by 50 to 70 per cent and reduce deaths by 30 to 50 per cent (if all three are implemented). The first two measures (home isolation for individuals ("stay at home) and household isolation) are designed to delay the peak and the third (social distancing for over 70 year olds and the most vulnerable) is designed to reduce the death rate.

9. As set out at SGoRR(M) by the DCMO, there is a delicate balance in implementing these measures as against our need to develop herd immunity. If our actions are premature or otherwise ineffective, then there is a chance of a second substantial spike. This is illustrated in the diagram overleaf:



10. It is essential we understand that even if these difficult measures are implemented they are not sufficient to allow the health and social care sector to manage at the peak of an outbreak.

11. During the COBR(M) yesterday, it was agreed that in advance of final decisions on the three proposed measures we should be emphasising existing good practice not only on hand washing but also that anyone with symptoms suggesting respiratory infection should already be staying at home and not attending work. COBR(M) on Wednesday, 11 March will discuss and agree trigger points and phasing of the three proposed mitigating measures.

Phasing of measures

12. Based on current best scientific evidence, to deliver greatest effect, the measures may be implemented in the following sequence:

- Phase 1 – advise all with clear symptoms suggesting respiratory infection to stay at home (existing guidance; we are in this phase);
- Phase 2 - advise all with *mild* symptoms to stay at home (no testing);
- Phase 3 – "social distancing" measures to advise those over 70 years old and those currently eligible for the flu vaccine to stay at home;
- Phase 4 – advise whole households to stay at home if anyone is presumed to be symptomatic (mild).

Phasing of measures will be considered by COBR(M) on Wednesday. Additional evidence has been commissioned on the trigger points for all of these as the timing of implementation will be key. If we were to introduce these too early we wouldn't get the benefit but suffer from the resultant economic and social costs associated with them. However, if we implement them too late, there would be a resultant impact on our ability to reduce the spread of the virus.

Need for a differential Scottish approach

13. We accept that our priority is to act on the basis of best scientific advice and that may very well be on a UK basis. However, there are potential differences between Scotland and the rest of the UK, and also at a regional or local level.

14. At COBR(M) the First Minister sought assurances that the modelling would take account of any differential demography or geography, given that it would appear that England is ahead of the rest of the UK in terms of "the epidemiological curve". Distinctive features would include remote, rural and island communities and a focus on our most socially deprived and vulnerable communities. But we also know that nearly a third of Scots live alone and whilst this will aid any isolation, it will likely place additional demands to provide clinical support to them in the community.

15. It was recognised at SGoRR(M) yesterday that in terms of public messaging, a consistent, simple message covering all of the UK would be preferable. Divergence from this would be based on best scientific evidence, recognising the fact that a unified UK message would detrimentally impact on the Scottish population.

NHS Surge and Capacity

16. As I set out at SGoRR(M) yesterday, my officials have been using the latest SAGE data to model the impact on the NHS and social care sector.

17. Scotland currently has 13,000 beds and 372 theatres, these cover a wide range of services from maternity, cancer, general medical, surgical services etc. Given the requirement to maintain cancer, emergency surgical, maternity, paediatric, and a wide range of tertiary services, not all of these beds would be suitable or desirable for housing COVID 19 patients. Our basic planning assumption for NHS boards is that they cease non-urgent and elective procedures. As part of a tiered response we would target inpatient reduction first, to free up as much inpatient bed capacity and theatre capacity as possible. This would be across all elective specialties but mainly orthopaedics, general surgery, ENT and urology.

18. Our second stage response would be to cease all daycase surgery and non-urgent outpatient appointments (mainly return appointment). We are currently examining the prospect of increasing ITU capacity, recognising there will be variable limiting factors for each board depending on their circumstances.

19. My officials have modelled on the basis of the latest SAGE Reasonable Worst Case Scenario accepting that mitigating actions are likely to reduce the demand. This has been based on 50 per cent of the population in Scotland being symptomatic (2.7 million) and 13 per cent of those requiring hospitalisation (350,000). Our current assumption (subject to change – and analysis of NHS board returns) is that NHS Boards could provide around 3,000 surge beds for COVID-19, of which around 250 are level 3 ICU for COVID-19. Under any scenario it is likely that we will reach capacity in intensive care given that we know 19 per cent of those requiring hospitalisation will require ventilation at some point. It is therefore our planning assumption that intensive care capacity doubles from 190 to 380.

20. I am mindful of the impact of a surge in demand. My officials have assumed that demand for beds will peak at around 25 per cent of the total demand. This would give us a demand of around 87,000 beds for COVID-19 patients in the peak week without mitigating action. An early crude estimate of the impact of the proposed measures would reduce this demand to 28,000 beds, although this work is being redefined as the modelling develops.

21. My officials are exploring mechanisms to explore the steps needed to increase capacity within all areas. This is including securing private sector capacity and exploring what might be required to secure non clinical provision (i.e. hotels) to protect capacity within a clinical setting. Steps are also being taken to deploy a wider health workforce by utilising medical and nursing students and other healthcare professionals including recent retired doctors and nurses to assist in managing predicted absence rates in the health and social care workforce.

22. Beyond this I have accelerated the Attend Anywhere and Near Me model that enables digital consultations which will be essential if we are encouraging self-isolation. These measures are however only the start of the response needed and I am mindful that the health and social care sector is likely to be hit hardest with staff absences although it is difficult to model this. My officials are currently using a 30 per cent projection to factor in both COVID-19, existing illness rates and caring responsibilities.

23. We are currently finalising our assessment of the week by week impact on the mitigation measures taken to alleviate the peak period of attack. Against the anticipated demand in the system across health, social and primary care we are constructing a mobilisation plan to show the scale up of our response on a week by week basis. For example, this will show the decisions that we have already taken on Attend Anywhere and the anticipated impact of the roll out across the NHS in deflecting demand away from attendance on a personal basis to consultation on a digital basis. Additionally we will be considering the scale up of ITU and general bed capacity as part of our response. We will wish to highlight the decisions required and the resources needed to respond on a week by week basis. This will cover all parts of our health response.

Wider, non-health and social care sectors

24. I know that all other Portfolios are doing similar work to that just set out. The First Minister received an initial summary of this substantial programme of work for the COBR(M) meeting yesterday. At the subsequent SGoRR(M), we agreed that we need to operationalise our response and that initial detailed plans for implementing the three proposed measures in different sectors. The plans have to be comprehensive with a particular focus on measures to support the most vulnerable communities and mitigate severe hardship.

25. To support the actions covered in this paper will require more than just a response from public and private sectors. We will need to ensure that we are engaging and supporting the third and independent sector. Indeed the successful implementation of these measures will require a substantial mobilisation of community

capacity. The measures themselves – including a substantial proportion of the population staying at home and avoiding contact - will of course impact on the ability of the community to support itself.

Legislation

26. UKG is introducing an emergency Bill to support the UK-wide multi-sector response to emerging COVID-19 situation. The Bill is expected to be introduced on 19 March, with Royal Assent by 31 March (before Easter recess). The life of the Bill is likely to be up to 2 years, with the option to extend for 6 months at a time.

27. We have provided legal instructions on Scottish measures and expect to receive a copy of the draft Bill in the next few days prior to introduction. The planned provisions have changed with the removal of clauses relating to: (1) acquisition of land; (2) cancellation of elections; and (3) mandatory vaccinations of health and social care workers. These provisions have been removed to avoid unnecessary controversy rather than based on policy or clinical advice.

28. Timescales are extremely tight and we preliminary discussions have taken place with Scottish Parliament officials, other party leaders and Committees to allow for parliamentary scrutiny and timely passage of the LCM process. Ministers and officials are now in the process of engaging with key stakeholders likely to be impacted by the measures in the Bill.

Parliamentary Handling

29. I intend to make a statement in the Parliament this afternoon which builds on my statement last week and the briefings I have held, along with the CMO, for opposition party leaders and their spokespersons. I intend to follow this up with a letter to all MSPs to reinforce my commitment to keep Parliament updated. I may then make a further statement on Thursday assuming that a decision is taken at COBR(M) on Wednesday, 11 March to implement the three measures.

Finance

30. HM Treasury have so far indicated that decisions on net additional funding are likely to evolve over time. The current assumption is that the Barnett Formula will be the main process through which the devolved administrations receive additional funding. However the point has been made by officials that there might be a disproportionate impact and costs for devolved administrations, which would be clarified as part of our differential analysis.

31. The Cabinet Secretary for Finance is attending the Finance Ministers Quadrilateral on Tuesday, 10 March, where there will be a focus on COVID-19.

32. Given the uncertainty on how the COVID-19 outbreak will develop, it is impossible to fully assess the possible cost implications, however Cabinet Secretaries should consider potential financial implications in the current reasonable worst case scenario for their Portfolios. It is particularly important that consideration is given to where that might be disproportionate cost implications for Scotland

Scottish Government Organisational Response

33. The decision to implement the three proposed measures will impact on all sections of Scottish society and therefore every Portfolio. If we agree to move immediately to operationalise our response through detailed implementation plans then this will require a substantial response from staff across the Scottish Government. I have set out the scale of the response that will be led by DG Health and Social Care; that will require significant flexibility in deployment of staff. A similar response from other DG families will be required.

Communication and Public Messaging

34. Clear and consistent communication, in language the public understand, is essential when providing critical information. Communications must be guided by evidence ensuring we successfully ***describe*** proposed behavioural and social interventions and ***persuade*** people of the value of adopting them. As such, a clear rationale for *why* people are being asked to undertake specific measures must be highlighted at each stage. There is also a significant role for ***reassurance*** and ***myth-busting***.

35. Key considerations and an outline marketing proposal to support behaviour change and compliance around self-isolation for COVID-19 are set out at **Annex C**.

Conclusion

36. **Cabinet is invited to**:

(a) **Consider the impact of the three options being considered by COBR(M) on relevant portfolio interests and to start to develop detailed implementation plans accordingly**;

(b) **Note the scale of the Government-wide response and ensure that our collective action supports the most vulnerable communities**;

(c) **Ensure all portfolios are prioritising planning and engaging with their stakeholders**;

(d) **Ensure all portfolios consider best estimates of the potential financial costs as a result of planned Scottish Government actions, noting work that already under way at official level to make this assessment**;

(e) **Ensure we adopt a co-ordinated and consistent approach to our communications and messaging**.

JF
March 2020

ANNEX A

EMERGING EVIDENCE TO INFORM COVID-19 RESPONSE

RANGE OF OPTIONS REVIEWED BY SAGE

Measure and/ or combination of measure	SAGE Recommendation	Confidence assessment of limiting transmission in UK	Potential effectiveness in reducing the peak of an outbreak	Reduction in peak	Potential effectiveness in reducing cases and deaths caused by lack of NHS bed capacity
(1) Stopping large events	Not recommended	Very low confidence	Very little on own	Very little on own	Very little on own
(2) Closing schools	Maybe appropriate at a later stage	High confidence	No more than 3 weeks delay to peak and possibly much less	c.10%-20% reduction in peak hospital demand with closures of 8-12 weeks (if children have similar role in transmission as in pan flu)	Modest (<5%)
(3) Social distancing for all	Maybe appropriate at a later stage	Medium confidence	3-5 week delay to peak	Substantial reduction in peak, may be up to 50–60%	Around 20-25% of deaths
(4) Home isolation of symptomatic cases	Recommended for consideration now	Low confidence	2-3 weeks delay to peak	Reduction in peak incidence of maybe 20% (uncertainty range at least 15-25%)	Modest impact (<5%)
(5) Whole household isolation	Recommended for consideration now	Medium confidence	2-3 weeks delay to peak	Reduction in peak incidence of maybe 25% (uncertainty range at least 20-30%)	Modest impact (<10%)
(6) Social distancing for elderly and vulnerable	Recommended for consideration now	High confidence	Negligible impact	Reduction in peak total number of cases, but c.25-35% reduction in deaths and demand for hospital beds and critical care beds	In the 70+ scenario, 5% of cases, but 15-35% of deaths. In the 80+ this drops to 5-15%.
(4) and (6) Home isolation and social distancing	Recommended for consideration now	n/a	2-3 weeks delay to peak	45-55% reduction in peak hospital bed demand	30-45% reduction in deaths
(4), (5) and (6) All three measures	Recommended for consideration now	n/a	2-3 weeks delay to peak	50-70% reduction in peak hospital bed demand. Greater when started early.	30-50% reduction in deaths. Smaller impact on total cases.

ANNEX B

EMERGING EVIDENCE TO INFORM COVID-19 RESPONSE

SUMMARY OF MITIGATING ACTIONS BEING CONSIDERED

Following detailed modelling, SAGE (Scientific Advisory Group on Evidence) have been refining the evidence to inform their recommendation. The following sets out the assumptions that underpin each option below:

Home Isolation of symptomatic cases when enacted
(policy would be applied for 13 weeks)

- There will be no testing or contact tracing for patients;
- Based solely on symptoms and not linked to travel history;
- Threshold got symptoms is low and includes high temperature, dry cough, sore throat, or muscle ache which is a shift to capture milder symptoms;
- Expecting a high level of social compliance of 70 per cent;
- Likely to be for seven days;
- Expectation that all symptomatic cases will reduce contact with others in the household;
- Effect – delay the outbreak by two to three weeks, reduce peak incidence by 20 per cent and reduce cases and deaths by <5 per cent.

Social distancing for people over 70 year old and the 'vulnerable'
(policy would be applied for 13 weeks)

- Expecting a 75 per cent social compliance rate;
- The current at risk group is being classified as those identified within the seasonal flu programme – this includes, those with diabetes, pregnant women etc.;
- This intervention is not linked to anyone being symptomatic
- We understand the vulnerable is being defined from the 'Green Book' on influenza and includes conditions such as:
    - Chronic respiratory disease
    - Chronic heart disease
    - Chronic kidney disease
    - Chronic liver disease
    - Chronic neurological disease
    - Diabetes
    - Immunosuppression;
    - Asplenia or Dysfunction of the spleen;
    - Pregnant women; and
    - Morbid Obesity.
- This measure is designed to reduce social contact by 75 per cent;
- Effect – Negligible effect in delaying outbreak, 15 to 35 per cent reduction in deaths and demand for hospital beds and critical care beds.

Whole household isolation when enacted early
(policy would be apply for 12 - 13 weeks)

- Expectation this would be for 14 days, but this would be rolling if others in the household become symptomatic;
- Based on achieving a 50 per cent compliance rate;
- Anyone in the household who had symptoms and recovered following a 7 day isolation, could leave the house for essential tasks such as shopping, collecting prescriptions, etc.;
- Effect – delay the outbreak by two to three weeks, reduce peak incidence by 25 per cent and reduce cases and deaths by <10 per cent.

ANNEX C

EMERGING EVIDENCE TO INFORM COVID-19 RESPONSE

MINISTERIAL SUBMISSION OUTLINING PROPOSALS FOR MARKETING ACTIVITY IN SCOTLAND TO SUPPORT THE ADOPTION OF PROPOSED INTERVENTIONS AROUND COVID-19

(Copy submission supplied separately.)