Addendum to twenty-second SAGE meeting on Covid-19, 2nd April 2020
Held via Zoom

This addendum clarifies the roles of the SAGE attendees listed in the minute. There are three categories of attendee. Scientific experts provide evidence and advice as part of the SAGE process. HMG attendees listen to this discussion, to help inform policy work, and are able to provide the scientific experts with context on the work of government where appropriate. The secretariat attends in an organisational capacity. The list of attendees is split into these groups below.

Attendees

Scientific experts: *Patrick Vallance (GCSA), Chris Whitty (CMO), Jonathan Van Tam (Deputy CMO), Steve Powis (NHS), Calum Semple (Liverpool), Maria Zambon (PHE), Ian Diamond (ONS), Angela McLean (CSA MoD), Charlotte Watts (CSA DfID), Carole Mundell (CSA FCO), John Aston (CSA HO), Andrew Morris (Scottish Covid-19 Advisory Group), Jeremy Farrar (Wellcome), Graham Medley (LSHTM), Julia Gog (Cambridge), Neil Ferguson (Imperial), John Edmunds (LSTHM), Sebastian Funk (LSHTM), Peter Horby (Oxford), Brooke Rogers (King's College), James Rubin (King's College), Lucy Yardley (Bristol/Southampton), Therèse Marteau (Cambridge), Wendy Barclay (Imperial), Andrew Rambaut (Edinburgh), Gregor Smith (dCMO Scotland), Rob Orford (Health CSA Wales).*

Observers and Government Officials: *Ben Warner (No. 10), Vanessa MacDougall (HMT).*

Secretariat: [redacted]

Names of junior officials and the secretariat are redacted.

Participants who were Observers and Government Officials were not consistently recorded therefore this may not be the complete list.

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Summary

1. SAGE agreed the importance of consistent recording hospital and community fatalities by date of death.
2. A national testing strategy requires overall target volumes for understanding infection rates among a) hospital patients b) NHS staff c) age-stratified population survey participants and d) communities.
3. SAGE agreed that it is unlikely before week 13th April it can start to advise whether the interventions in place are having enough of an effect. SAGE does not currently recommend that changes be made at that point.
4. There is a danger that lifting measures too early could cause a second wave of exponential epidemic growth – requiring measures to be re-imposed.

Situation update

5. A nosocomial transmission sub-group will be co-chaired by the National Infection Service and the NHS nursing director, with a secretariat from NHS. It will meet twice weekly starting immediately.
6. Adult critical care bed capacity continues to be available, including in London. The lowest English demand is currently in the South-West.
7. CO-CIN data is signalling nosocomial infection more strongly than previously. SAGE will discuss this in detail at its next meeting following output from the specialist sub-group.
8. No update on R or doubling time since SAGE #21.
9. SAGE agreed that the reasonable worst case scenario remains valid.
10. SAGE re-emphasised the importance of consistent recording hospital and community fatalities by date of death. This will be in place by the end of this week.
11. The chief statisticians of the DAs are working to ensure data consistency and reduce time lags in making data available.
12. SAGE agreed that the Nowcast could be a useful resource for HMG once data are fully reconciled.

ACTION: ONS to coordinate agreement with **PHE** and **NHS** on a single method of reporting Covid-19 deaths numbers, by the end of the week

ACTION: SPI-M to review Nowcast to ensure consistency of data interpretation

Understanding Covid-19

13. There are no current signals that secondary bacterial infection is a major issue. NERVTAG continues to investigate this.
14. CO-CIN data suggests that obesity, lung disease, heart disease and neurological disease are important risk markers for Covid-19. Conventional risk scores do not seem helpful.
15. SAGE can expect an update next week on results from genome sequencing, with a particular focus on nosocomial spread.

Testing

16. PHE is exploring the quality of commercially available tests in measuring both exposure and immunity.
17. The UK is at least 4-6 weeks away from implementing reliable antibody testing for healthcare workers.
18. SAGE advised that serology testing should be rolled out to NHS laboratories rapidly once assessed – and noted the importance of PHE guidance to NHS on delivery of this

testing. Interpretation of these tests may well not be straightforward and requires further research.

19. SAGE agreed that a feasible and successful, long-term testing strategy:
    - is linked to the UK's overall strategy for managing the epidemic, and will be important for lifting interventions
    - needs to match the performance of tests against the prevalence of infection
    - requires clear and consistent use of technical terms
    - should involve a clear public communications element to address confusions about what different tests can/cannot do (active infection, vs antibody, immunity etc), and how they will be deployed.
20. Critically, the testing strategy requires target volumes for detecting infections and understanding infection rates among a) hospital patients b) NHS staff c) age-stratified population survey participants (these are already available) and d) wider communities and outbreak detection.
21. Wider community detection will require large volumes of testing and SAGE would like to review the proposal and numbers required.
22. Separately, HMG policy leads should calculate target testing volumes for critical workers in other sectors.
23. The quality of testing and interpretation and communication of results is critical. There is a risk of individuals receiving incorrect test results or misinterpreting them, leading to unsafe behaviours by workers or unsafe demands being made of workers by employers.

ACTION: For the next meeting of SAGE, **CMO** and **NHS clinical director** to advise on target volumes for hospital patients and NHS staff; **SPI-M** to advise on volumes for community testing (following strategic guidance from **GCSA** and **CMO** on issues including frequency and levels of control scenarios)

ACTION: NIHR to develop a single public communications plan around testing, with input from **SPI-B** and **PHE (Maria Zambon)**

Lifting interventions

24. SAGE agreed that, by 13th April (i.e. 3 weeks following the introduction of interventions), it should able to advise whether interventions in place are having an effect – or whether further interventions might need to be considered.
25. SAGE does not recommend that there will be sufficient scientific data for changes to interventions be made at that point: there is a danger that lifting measures too early could lead to a second wave of exponential growth of the epidemic, requiring measures to be re-imposed.
26. Until and after 13th April, SAGE will consider which measures could be relaxed and in what sequence from an epidemic perspective – for which it will need to understand, with input from SPI-M, which measures are having the greatest impacts on disease progression.
27. SAGE agreed it is not advisable to combine epidemiological and economic or secondary health effect analysis in a single model.
28. SAGE will look further at how shielding of the vulnerable can be incorporated in future modelling.
29. Specific work may be required to understand particular risks, e.g. around certain occupations, and how evidence can be generated in relation to those risks. SAGE cautioned about the difficulty of interpreting such work
30. Behavioural science suggests that if, as advised, interventions are to be continued, clear communication around how they help in reducing infection rates (e.g. in hospitals, workplaces) will be important to maintain public compliance. On/Off approaches were discussed and some of the difficulties with such approaches noted.

31. A group led by Ian Diamond and John Aston – and including NHS, HO, Government Actuaries Department – is considering longer-term impacts on overall health from the interventions as part of its work on excess deaths.

ACTION: **Ian Diamond** and **John Aston** to consider how best to expand membership of the excess deaths modelling group to cover longer-term health impacts from interventions

ACTION: Ian Diamond to explore whether mobile phone data can be used to understand co-location in certain workplaces (e.g. construction sites) and whether that would help identify specific workplace contact issues

International

32. DfID will discuss modelling in relation to low-income countries with SPI-M and NERVTAG.
33. FCO can, where required, use diplomatic channels to urge sharing of better data from other countries. It was noted that the Royal Society is also setting up a data group to provide information on this to SAGE.
34. A future meeting of SAGE will look at what the UK can learn from actions on other countries.

List of Actions

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SPI-M to review Nowcast to ensure consistency of data interpretation

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Attendees

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SAGE secretariat: [redacted]