Addendum to seventeenth SAGE meeting on Covid-19, 18th March 2020
Held in 10 Victoria St, London, SW1H 0NN

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), Charlotte Watts (CSA DfID), Angela McLean (CSA MoD), Graham Medley (LSHTM), Jeremy Farrar (Wellcome), David Halpern (CO), Ian Diamond (ONS), Aidan Fowler (NHS), Demis Hassabis (Data scientist), Maria Zambon (DD PHE), Phil Blythe (CSA DfT), John Edmunds (LSTHM), Carole Mundell (CSA FCO), Tom Rodden (CSA DCMS), Osama Rahman (CSA DfE), Wendy Barclay (Imperial), Neil Ferguson (Imperial), Brooke Rogers (King's College), James Rubin (King's College), Andrew Curran (CSA HSE).*

Observers and Government officials: *Ben Warner (No. 10), Stuart Wainwright (GoS), Rupert Shute (dCSA HO), Marc Warner (NHSX).*

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 a complete list.

Seventeenth SAGE meeting on Covid-19, 18th March 2020

Held in 10 Victoria Street

Summary

1. Based on limited available evidence, SAGE considers that the UK is 2 to 4 weeks behind Italy in terms of the epidemic curve. The consensus is that growth of the UK epidemic is tracking at the same rate as in other countries.
2. SAGE advises that available evidence now supports implementing school closures on a national level as soon as practicable to prevent NHS intensive care capacity being exceeded.
3. SAGE advises that the measures already announced should have a significant effect, provided compliance rates are good and in line with the assumptions. Additional measures will be needed if compliance rates are low.
4. Reliable data on the health impacts of existing interventions will only be available in 2-3 weeks. This would not be in time to inform judgements on additional interventions to limit NHS pressures, which are likely to be significant within 2-3 weeks. It may be possible to collect intermediate data, and this should be a priority.
5. Social distancing based on a) places of leisure (restaurants, bars, entertainment and public spaces) and b) indoor workplaces depend on compliance with the guidance issued earlier in the week. We do not yet have reliable compliance data and therefore collecting reliable compliance data should be a priority.
6. If the interventions are required, it would be better to act early.
7. Transport measures such as restricting public transport, taxis and private hire facilities would have minimal impact on reducing transmission in London.
8. Future SAGE meetings will consider broader aspects of Covid-19 including clinical science, genetics, virology, and treatments and vaccines.

Situation update

9. There are 1,950 cases in the UK (17/03 at 14:00), with 87 intensive care cases, of which 62 are in London. Testing capacity has reached 6,084 daily, with a goal to reach 25,000 tests as soon as possible.
10. The UK is following broadly the same exponential growth rate of cases as Italy, and there is consistency with patterns in other countries.
11. There is uncertainty on our exact position, but the consensus view is that we are 2-4 weeks behind the epidemic curve in Italy.
12. Assuming a doubling time of around 5-7 days continues to be reasonable, but this is before any of the measures brought in have had an effect; these measures are likely to slow the doubling time even if there is still an exponential curve.
13. Modelling suggests that, without mitigation, London could reach Covid-19-related intensive care capacity by early April.

Testing, data and information sharing

14. SAGE discussed the importance of good quality and timely data. CHESS data has improved but has not stabilised, so trend analysis is more challenging. The overall quality of data is improving, with short time lags to ensure data quality and consistency.
15. An NHSX hub should be in place from early next week ensuring a standardised, single source of data. Legacy data collection should continue for a short period to provide resilience.
16. Postcode-level data from NHS 111 and geospatial data may be utilised to provide a fuller picture, possibly by next week.
17. NHS updated on a joint NHS-PHE plan for testing, including 25,000 PCR tests a day, an increase in viral antigen detection tests and increased serosurveillance, including a more widely available serological test.

18. SAGE discussed how to ensure that key workers, particularly NHS staff, get full access to comprehensive testing and agreed the importance of ramping up testing as soon as possible.
19. SAGE discussed plans to release the academic models underpinning SAGE and SPI-M discussions and judgements. Modellers agreed that code would become public but emphasised that the effort to do this immediately would distract from other analyses. It was agreed that code should become public as soon as practical, and SPI-M would return to SAGE with a proposal on how this would be achieved.

ACTION: SPI-M to advise on how to make public the source code for academic models, working with relevant partners

School closures

20. SAGE reviewed available evidence and modelling on the potential impact of school closures. The evidence indicates that school closures, combined with other measures, could help to bring the R_0 number below 1, although there is uncertainty.
21. SAGE discussed the impact of school closures in terms of alternative childcare arrangements, particularly grandparents and older groups at risk from Covid-19. The evidence suggests that displacement of childcare from schools to grandparents would reduce the effect of closures, but this unwanted effect is likely to be limited.
22. It was reported that single parents often have younger parents, and so the grandparents are often in their 50s.
23. SAGE considered the impact of keeping schools open for particular groups, including for children of NHS workers and vulnerable groups. SAGE considered that a small (10-20%) reduction in compliance rates would have some impact in the overall effect of school closures, but this would not be significant enough to offset the measure. The effect of school closures would be significantly reduced if there was widespread mixing of children outside of schools.
24. SAGE considered the modelling now supports school closures on a national level and that the effect would be greatest if instituted early.
25. SAGE discussed behavioural science considerations on school closures. With limited evidence, SAGE considered the importance of clear public messaging and of drawing on the views of teachers on keeping schools open for key workers or vulnerable groups. There is a risk that even if schools remain open for the above groups, children may not attend.

Regional measures – London

26. The social distancing measures have only recently been implemented. Their effect depends on compliance levels, for which there are currently insufficient data. A verbal report of a single survey was given, which suggested that significant behaviour change was expected, but currently we do not have reliable data.
27. SAGE considered available evidence for London on current demand for transport and retail services, and on individual behaviours following the implemented interventions.
28. SAGE discussed additional interventions that could be made to reduce transmission, noting that London may be 1-2 weeks ahead of the rest of the country.
29. Measures with the strongest support, in terms of effect, were closure of a) schools, b) places of leisure (restaurants, bars, entertainment and indoor public spaces) and c) indoor workplaces. Modelling is unlikely to be able to analyse the impact of these interventions with great precision.

    Transport measures such as restricting public transport, taxis and private hire facilities would have minimal impact on reducing transmission. SAGE noted that there may be other hotspots where spread is more advanced, such as the Derby/Nottingham/Leicester area. It is possible that some of this is due to nosocomial transmission, but this is not yet known.

List of actions

SPI-M to advise on how to making public the source code for academic models, working with relevant partners.

Attendees

SAGE participants: *Patrick Vallance (chair), Chris Whitty, Jonathan Van Tam, Steve Powis, Charlotte Watts, Angela McLean,* LPP/LAP *Graham Medley, Jeremy Farrar, David Halpern, Ian Diamond, Aidan Fowler, Rupert Chute, Demis Hassabis, Marc Warner*

By phone: Maria Zambon, Phil Blythe, John Edmunds, Carole Mundell, Tom Rodden, Carole Mundell, Osama Rahman, Wendy Barclay, Neil Ferguson, Brooke Rogers, James Rubin, Ben Warner, Andrew Curran, LPP/LAP

SAGE secretariat: LPP/LAP *Stuart Wainwright,* LPP/LAP