Addendum to fifteenth SAGE meeting on Covid-19, 13th March 2020
Held in 1 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), Steve Powis (NHS), Charlotte Watts (CSA DfID), Angela McLean (CSA MoD), John Aston (CSA HO), Sharon Peacock (PHE), Graham Medley (LSHTM), Neil Ferguson (Imperial), John Edmunds (LSTHM), Julia Gog (Cambridge), Brooke Rogers (King's), James Rubin (King's), Jeremy Farrar (Wellcome), David Halpern (CO), Osama Rahman (CSA DfE), Ian Diamond (ONS), Tom Rodden (CSA DCMS), Maria Zambon (PHE), Andrew Rambaut (Edinburgh), Jonathan Van Tam (Deputy CMO), Phil Blythe (CSA DfT), Wendy Barclay (Imperial).*

Observers and Government officials: *Ben Warner (No. 10).*

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.

Fifteenth SAGE meeting on Wuhan Coronavirus (Covid-19), 13th March 2020
Held in 1 Victoria Street

Summary

1. Owing to a 5-7 day lag in data provision for modelling, SAGE now believes there are more cases in the UK than SAGE previously expected at this point, and we may therefore be further ahead on the epidemic curve, but the UK remains on broadly the same epidemic trajectory and time to peak.
2. The science suggests that household isolation and social distancing of the elderly and vulnerable should be implemented soon, provided they can be done well and equitably. Individuals who may want to distance themselves should be advised how to do so.
3. SAGE is considering further social distancing interventions – that may best be applied intermittently, nationally or regionally, and potentially more than once – to reduce demand below NHS capacity to respond. The modelling sub-group is discussing potential interventions on Monday 16th, for review by SAGE on Tuesday 17th.
4. The behavioural science suggests openly explaining to the public where the greatest risks lie and what individuals can do to reduce their own risk and risk to others, even if this is ahead of measures announced by the Government – but SAGE recognises that taking individual measures may be more feasible for some than others. Greater transparency could enable personal agency, send useful signals about risk and build trust.
5. Measuring the impact of all interventions depends on sufficient, relevant data delivered on time: it is a priority to ensure accurate and complete data are available with minimal delay.

Situation update

6. SAGE is keen to make the modelling and other inputs underpinning its advice available to the public and fellow scientists.
7. There are probably more cases in the UK than SAGE previously expected at this point, and we may be further ahead on the epidemic curve, but the UK remains on broadly the same epidemic trajectory. The change in numbers is due to the 5-7 day lag phase in data availability for modelling.
8. Office for National Statistics (ONS) is gathering data on a) availability and prices of key ("anxiety") goods b) labour market trends c) consumer spending across key sectors d) and business behaviour (e.g. home working).
9. ONS is also developing a new opinion survey, for which questions are being finalised over the weekend.
10. SAGE will review a dashboard containing the findings from these datasets at each meeting.

ACTION: SAGE secretariat to work with **HMG Communications** colleagues to agree what SPI-M and SPI-B information will be made public and a process to share this, ensuring this information is easily accessible and understandable. This needs to be done as soon as possible

ACTION: SPI-B and **SPI-M** to provide comments on what should be included in the ONS opinion survey via **SAGE secretariat** by 1200 on Sunday 15 March 2020

Understanding Covid-19

11. There is some evidence from Japan (not peer reviewed) that certain individuals spread the virus to multiple others, while other individuals are responsible for minimal spread.
12. It is clear that household quarantining would lead to increased risk of others within the household becoming infected, as described in the modelling.

ACTION: SPI-M to agree a position on the risk of secondary infection in a household for the next SAGE meeting (17 March)

Behavioural and social interventions

13. Household isolation lasts for 14 days, with certain individuals having to isolate for longer if they have symptoms (as per the case isolation policy).
14. There are no strong scientific grounds to hasten or delay implementation of either household isolation or social distancing of the elderly or the vulnerable in order to manage the epidemiological curve compared to previous advice.
15. However, there will be some minor gains from going early and potentially useful reinforcement of the importance of taking personal action if symptomatic. Household isolation is modelled to have the biggest effect of the three interventions currently planned, but with some risks.
16. SAGE therefore thinks there is scientific evidence to support household isolation being implemented as soon as practically possible.
17. SAGE recognised there are operational challenges to immediate effective and equitable implementation and that there are inevitable lags between the implementation of measures and impacts felt.
18. There are social and health disbenefits of cocooning (shielding) of the elderly as well as coronavirus-related benefits. It needs to be done in as equitable a way as possible. Timing should be soon for maximal effect, but recognising these health trade offs.
19. SAGE further agreed that one purpose of behavioural and social interventions is to enable the NHS to meet demand and therefore reduce indirect mortality and morbidity. There is a risk that current proposed measures (individual and household isolation and social distancing) will not reduce demand enough: they may need to be coupled with more intensive actions to enable the NHS to cope, whether regionally or nationally.
20. SAGE requested that SPI-M investigate what kinds of interventions might be sporadically or continuously implemented to enable the NHS to meet demand, and at what points, and to set out its confidence levels in the impacts of these interventions.
21. SAGE noted sufficient and timely flows of relevant data are critical to determining when any interventions should best be implemented.
22. SAGE also noted the importance of comparing UK interventions with those of other countries, such as Germany, and modelling the efficacy of those countries' interventions in the UK; some of these can be added as the epidemic progresses. (SAGE is separately creating a product to compare the epidemic curve in several countries.)
23. It was noted that Singapore had had an effective “contain phase” but that now new cases had appeared.
24. SAGE was unanimous that measures seeking to completely suppress spread of Covid-19 will cause a second peak. SAGE advises that it is a near certainty that countries such as China, where heavy suppression is underway, will experience a second peak once measures are relaxed.

ACTION: DHSC Moral and Ethical Advisory Group (MEAG) to be invited to consider the ethical ramifications of household quarantine, given the increased risk to other residents where one resident is symptomatic

ACTION: NHS to inform **SPI-M** of critical care capacity for all four nations, now and in future: across all four nations and regionally

ACTION: NHS, **PHE** and **SPI-M** to review the CHESS dataset and ensures it includes the data modellers need. **NHS** to be requested to urgently direct hospitals to input data onto this system

ACTION: SPI-M to review what further interventions will allow NHS to cope regionally (and nationally), and when these interventions should be taken. This work to include reference to the modelling uncertainty, whether these interventions need to be continuous or sporadic, and what the triggers for beginning/ending these interventions should be

Behavioural science considerations

25. The behavioural science points to openly explaining to the public where the greatest risks lie and what individuals can do to reduce their own risk, even if this is ahead of measures announced by the Government.
26. Supporting social distancing measures that are taking place anyway (e.g. sporting events, working from home) may be useful and reinforce the notion that all measures the UK implements need to be taken seriously. Not doing so potentially undermines the other actions and trust.
27. Greater transparency will help people understand personal risk and enable personal agency, send useful signals about risk in general and build public trust. Citizens should be treated as rational actors, capable of taking decisions for themselves and managing personal risk.
28. There is some evidence that people find quarantining harder to comply with the longer it goes on. The evidence is not strong but the effect is intuitive. There is no comparable evidence for social distancing measures, but experience suggests it is harder to comply with a challenging behaviour over a long period than over a short period.
29. There is no strong evidence for public compliance rates changing during a major emergency. There is, however, a link between public anxiety and protective behavioural change.
30. Difficulty maintaining behaviours should not be treated as a reason for not communicating with the public about the efficacy of the behaviours and should not be taken as a reason to delay implementation where that is indicated epidemiologically.
31. Where the UK does not adopt measures seen in other countries, Government should clearly explain its reasoning.
32. SAGE recognised that taking individual measures will be more feasible for those with greater personal resources – and that some social distancing is happening in the UK without HMG directing citizens to do so.

UK testing

33. Community testing is ending today – which will increase the pace of testing (and delivery of results) for intensive care units, hospital admissions, targeted contact tracing for suspected clusters of cases and healthcare workers. This includes faster confirmation of negative results.
34. A CHESS data system is being stood up this weekend, based on a winter flu reporting system.
35. The current limiting factor on serology is availability of samples. This needs to be resolved as soon as possible, and SAGE suggested several measures.

ACTION: PHE to urgently determine how it will ramp up to take 1,000 blood samples a week, taking advice from SAGE participants

ACTION: PHE to contact Italian counterparts to request serology samples. If available, **PHE** to test these samples to ascertain symptomatic vs asymptomatic case ratio. This should be stratified by age

Next meeting of SAGE

36. SAGE to discuss the ramifications of a second epidemic peak.

List of actions

SAGE secretariat to work with **HMG Communications** colleagues to agree what SPI-M and SPI-B information will be made public and a process to share this, ensuring this information is easily accessible and understandable. This needs to be done as soon as possible.

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By phone: Maria Zambon, Andrew Rambaut, Jonathan Van Tam, Phil Blythe, Wendy Barclay

SAGE secretariat: [redacted]