Fifty-third SAGE meeting on Covid-19, 27th August 2020
Held via Zoom

Summary

1. Considering all available data, it is likely that incidence may be static or increasing slowly, meaning R may be above 1 in England and across the UK.
2. The effectiveness of mass testing will depend on several factors including the proportion of the population tested; the frequency of testing; the ability of a test to identify true positives and negatives; the speed of results; and adherence to isolation. The testing itself should not be considered in isolation but as part of the total system requirements.
3. Any testing programme should have clear and specific aims, this could include reduction of R or risks of larger outbreaks. Separate testing objectives could relate to economic or social objectives such as re-opening venues or workplaces.
4. Mass testing is most likely to be successful in reducing R if used in well-defined higher-risk populations or settings e.g. care homes, where it is more feasible to detect and prevent large outbreaks early, and where compliance can be measured, and in groups with higher rates of infection and transmission than the general population.
5. Speed and coverage of NHS Test and Trace needs to be optimised to identify and isolate quickly a high proportion of symptomatic cases, and it will be important to ensure that a general mass testing project does not have any negative impact on this approach. Effective test and trace can have a significant effect on R and this should remain a priority.

Situation update

6. The DfE HE/FE Sub-group output paper will be revised to two separate papers covering HE and FE and will be brought to SAGE on 1 September.
7. In line with the SAGE discussion, further amendments have been made to the 'Aerosol and Droplet Generation from Singing, Wind Instruments and Performance Activities' paper to provide further detail around ventilation and risk.
8. There is increasing incidence within the UK in younger age groups, particularly females, which could lead to transmission to other groups, potentially including more vulnerable, older groups.
9. Given that younger people are less likely to appear in hospital and death data compared to older people, other indicators and data to monitor the spread of the virus and severity of disease in these age groups are recommended.
10. The latest estimate of R for the UK is 0.9 to 1.1, while the daily growth rate estimate is -2% to +1%. As previously, these estimates mask wide regional variation across the country and should be treated as a guide to the general trend.
11. In England, R is estimated at 0.9 – 1.0, with a daily growth rate of -3% to 0%. However, these estimates of R rely on lagged data (e.g. number of deaths). SAGE does not have confidence that R is currently below 1 in England.
12. Analysis of pillar 2 testing data suggests a daily growth rate of around -1% over the past 2 weeks in England (95% confidence interval). As previously, this should be treated with caution given changes in the population being tested.
13. ONS Infection Survey data also suggest that incidence in England is unchanged.
14. As previously, SAGE does not have confidence that most regional R estimates are sufficiently robust to inform decisions, since they are based on low numbers and/or are dominated by clustered outbreaks.
15. There is increasing incidence of Covid-19 in a number of European countries. There are also inconsistencies in lagging indicators including deaths, which may be related to the age profile of those becoming infected.
16. It is important to understand the reasons that the UK is not currently seeing such large increases in incidence, and to continue to closely monitor the epidemic for any signs of

similar patterns emerging in the UK. CoMix data indicate that the contact rates in the UK remain lower than in Belgium and the Netherlands, which may offer a partial explanation. Differences in relaxation of NPIs may also be important. However, it is possible that this is simply a time lag and that a similar pattern may emerge in the UK soon.

ACTION: SAGE secretariat to circulate updated 'Aerosol and Droplet Generation from Singing, Wind Instruments and Performance Activities' paper to DCMS for action by 28 August

ACTION: SAGE secretariat to circulate 'ONS update on effective dose' paper to NERVTAG by 28 August

ACTION: SPI-B, SPI-M and NERVTAG to review the 'Changing age demographics of COVID-19 within England, and the role of young adults in transmission' paper and provide input for discussion at SAGE following discussion on HE/FE by 3 September

ACTION: SPI-B to review 'Self-reported adherence to social distancing measures' paper, dated 7 April for further evidence and update bringing back to SAGE if necessary; **SAGE secretariat** to send extant paper to NHS T&T and CO

ACTION: SPI-M to amend consensus statement to clarify that work on household isolation will be brought to SAGE alongside the MHCLG commission on 10 September

ACTION: ICJU and FCO CSA to undertake further investigation on changing infection rates in other European countries and potential causes for these changes and differences from the UK by 10 September

Mass screening

17. SAGE endorsed the Mass Screening Task and Finish Group paper – subject to amendments following the discussion. The scenarios for use were considered particularly useful.
18. The effectiveness of mass testing will depend on several factors including the proportion of the population tested; the frequency of testing; the ability of a test to identify true positives and negatives; the speed of results; and adherence to isolation. It is important to recognise that testing is one part of a system leading to isolation of infectious individuals and the whole system needs to work in order to achieve the desired aim (which would be to identify as many infectious people as possible and isolate them from contacts during the infectious period).
19. Any testing programme should have clear and specific aims, this could include reduction of R or risks of larger outbreaks. Separate testing objectives could relate to economic or social objectives such as re-opening venues, workplaces etc (it is important to recognise these as different objectives).
20. A mass testing programme designed to reduce R should be designed to find as many cases as possible and have minimal detection of false positives. It would need to be linked to an effective system for isolation of cases (this will require incentives and intervention to increase both uptake of testing and adherence to isolation). Even if well designed and implemented, it may not be as effective at finding cases as a well-functioning Test and Trace system, especially at low levels of prevalence or if it requires the use of tests with low sensitivity or specificity.
21. SAGE strongly supports increased scale of testing and the associated system. As per previous reports it was noted that multiplex testing would be beneficial in some situations for winter.
22. With mass testing, it will be most efficient and effective initially to concentrate increased testing capacity on high risk groups and settings where transmission is likely to be

greatest. Priority groups for mass testing should be identified according to the risk of individuals being infectious, and the potential consequences if they tested positive. For the system to work social and economic factors will need to be considered, including incentives and interventions to enhance adherence.

23. Mass testing is most likely to be successful in well-defined higher-risk settings (e.g. care homes, meat processing plants etc) where it is more feasible to detect and prevent large outbreaks early, and compliance can be measured and moderated.
24. Tests used for mass population testing particularly in low prevalence settings and populations could result in higher false positives than symptomatic testing using lab-based PCR tests, which could reduce public confidence in testing. Double testing may be required to reduce false positives (with PCR as the gold standard).
25. Separately, and with a different objective, it would be possible to use a wider testing approach to detect and stop infectious individuals from entering specific venues (e.g. theatres, workplaces etc). This would reduce the chance of contact with an infectious person in such screened environments, but it should be recognised that this is a different objective to reducing R overall.
26. There are several barriers to symptom reporting including a lack of knowledge; concerns about stigmatisation; and financial disincentives such as loss of earnings. There are also barriers to self-isolation. These all need to be considered in any system.
27. SAGE agreed that clear communication and public engagement is needed to improve understanding of testing programmes and prevent stigmatisation of communities. Structured financial support for disadvantaged groups may be particularly important.
28. SAGE did not consider in detail different types of tests. There is an advisory group on testing technologies established within DHSC.
29. In any introduction of a mass testing (and isolation) system it will be important to undertake evaluation and experimentation (e.g. pilot studies) to determine the effects and adjust the programme accordingly.

ACTION: SPI-M and SAGE secretariat to update 'Multidisciplinary Task and Finish Group on Mass Testing Consensus Statement' to reflect discussion; **SAGE secretariat** to send paper to NHS T&T and C19 Taskforce by 28 August

ACTION: SPI-M to undertake further analysis to inform prioritisation and targeting of new tests by 10 September and provide input for discussion at SAGE

List of actions

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Attendees

Scientific Experts (30): *Patrick Vallance (GCSA), Angela McLean (CSA MoD), Carole Mundell (CSA FCO), John Aston (CSA HO), Osama Rahman (CSA DfE), Andrew Curran (CSA HSE), Tom Rodden (CSA DCMS), Robin Grimes (CSA Nuclear), Alan Penn (CSA MHCLG), Charlotte Watts (CSA DfID), Andrew Morris (SG Advisory Group), Steve Powis (NHS), Mark Wilcox (NHS), Rashmi Shukla (PHE), Mary Ramsay (PHE), Calum Semple (Liverpool), Wendy Barclay (Imperial), Graham Medley (LSHTM), John Edmunds (LSHTM), Catherine Noakes (Leeds), Theresa Marteau (Cambridge), Lucy Yardley (Bristol/Southampton), Ian Boyd (St Andrews), Jeremy Farrar (Wellcome), Venki Ramakrishnan (Royal Society), Mark Walport (UKRI), Sheila Rowan (CSA Scotland), Rob Orford (Health CSA Wales), Nicola Steedman (dCMO Scotland), Jim McMenamin (Health Protection Scotland)*

Observers (10): [redacted] *Gila Sacks (NHSTT), Ben Warner (No. 10), Ingrid Wong (CO),* [redacted]

Secretariat (all GO-Science) (15): [redacted] *Stuart Wainwright,* [redacted]

Total: 55