Transparency data

Sixty-second SAGE meeting on COVID-19 - 15 October 2020

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Contents

Held via Video Teleconference.

Summary

1. Incidence and prevalence across the UK continue to increase. The latest estimate of R for the UK is 1.3 to 1.5. Estimates from SPI-M suggest there are between 43,000 and 74,000 new infections per day in England.

2. In England the number of infections and hospital admissions is exceeding the Reasonable Worst Case Scenario (RWCS) planning levels at this time. The number of daily deaths is now in line with RWCS planning levels and is almost certain to exceed this within the next 2 weeks.

3. Segmenting the population by age is not without considerable risk, is operationally difficult, and is unlikely to be successful in reducing mortality and morbidity. However, taking additional precautions in those at increased risk is important.

4. Evidence suggests that pre-school and primary school-aged children are not currently playing a driving role in transmission of SARS-CoV-2. In educational settings it appears that there is limited transmission from children of primary school age (low confidence). High levels of infection in children of secondary school age in the ONS study requires further investigation. The evidence for the role of children in transmission within households is mixed. Further studies are needed to investigate their role in transmission outside of school settings.

Situation update

5. Incidence and prevalence across the UK continue to increase, as shown by data from the latest ONS infection survey and modelled estimates from SPI-M.

6. The latest estimate of R for the UK is 1.3 to 1.5, while the daily growth rate estimate for new infections is +4% to +7%. The latest estimate of R for England is 1.2 to 1.4, while the daily growth rate estimate is +4% to +7%. R is almost certainly above 1 in all regions of England and in Scotland, Wales and Northern Ireland. As previously, these estimates rely on lagged data, they mask wide regional variation in the number of new infections and how transmission is changing across the country. They should therefore be treated as an indication of the general trend.

7. There is no clear evidence that the epidemic's trajectory has changed in the past month. The growth rate estimates equate to a doubling time for new infections of 10 to 15 days, but it could be faster in some regions and age groups.

8. Estimates from SPI-M suggest there are between 43,000 and 74,000 new infections per day in England.

9. The latest ONS swabbing survey estimates that from 2nd to 8th October an average of 336,500 people had COVID-19 in England, with 27,900 new infections per day. However, given the current state of the epidemic, it is highly likely that incidence has continued to grow since the survey period and the current number of new infections each day is likely to be higher.

10. SAGE approved the SPI-M medium-term projections, noting data sensitivity analysis in the modelling. These are based on current trends, in the absence of additional interventions or behavioural changes. These projections cannot fully reflect changes in transmission which might have occurred over the past 2 to 3 weeks, including any impact from recent measures. Projections in the nearer term are more certain than those longer term.

11. In England the number of infections and hospital admissions is exceeding the Reasonable Worst-Case Scenario (RWCS) planning levels at this time. The number of daily deaths is now in line with RWCS planning levels and is almost certain to exceed this within the next 2 weeks.

12. SAGE agreed on the importance of measuring changes in population immunity in areas and demographic groups where prevalence is high to better understand the effect on transmission dynamics.

13. Testing data can provide a way of estimating prevalence of infection. Very high numbers of tests per day are needed to confidently detect changes in transmission in low prevalence areas. Fewer tests are needed in areas of high prevalence. Focusing tests on high prevalence areas to control outbreaks therefore potentially reduces the usefulness of testing data for surveillance if it leads to reductions in other areas.

14. Delays between tests and results, and variation in those delays, also affect the use of testing data for surveillance. There is some indication that the distribution of delays has changed markedly with increasing demand. As well as affecting data streams, delays beyond 24 hours greatly reduce the effectiveness of contact tracing. Increasing the supply of tests therefore may not be beneficial if it results in longer delays.

15. CoMix data on the impact of national and local restrictions on contact rates suggest that introducing the rule of 6 and encouraging people to work from home has led to the average person reducing contacts, however the magnitudes of these reductions are likely to be small.

16. CoMix data also indicate that the introduction of measures to close some hospitality settings at 10pm does not yet appear to have had a significant effect on reducing the mean number of contacts that participants make outside home, work and school. Contact duration may have been affected, though this has not been analysed.

17. The data strongly suggest that more stringent local restrictions have reduced the number of contacts individuals make outside of work and school, however the effect was small in comparison to the earlier national lockdown.

Actions:

- SAGE secretariat to convene a group to consider how serological studies could be carried out in areas of high prevalence and who would undertake such studies, with input from SPI-M
- SPI-M to review JBC projections of hospital admissions; NHS to note the SPI-M projections

Segmentation

18. SAGE endorsed the SPI-M paper on age- and risk-structured segmentation, which is in line with previous advice (see SAGE 48). This advice is distinct from policy on shielding those who are clinically vulnerable.

19. SAGE has previously advised that segmentation by age is not without considerable risk, is operationally difficult, and is unlikely to be successful in reducing mortality and morbidity. However, taking additional precautions in those at increased risk is important.

20. Segmentation would be unlikely to prevent potential spillover from younger to older populations. Even if segmentation were initially achieved and high levels of immunity could be reached in younger age groups (the duration of which would be unknown), it is almost certain that a further wave of the epidemic in older people would occur once segmentation ended.

21. An unconstrained epidemic in younger age groups would also have the potential to overwhelm the NHS, including the continued delivery of non-COVID treatments for all age groups.

22. As noted previously, age-based segmentation would raise ethical issues. There are also negative mental and physical health impacts associated with shielding which would need to be considered.

Actions:

- SPI-M to revise segmentation note in line with SAGE comments
- SPI-M secretariat to estimate the potential numbers of hospital admissions in the under 60s if a segmentation strategy were followed (if it were possible to effectively segment the population in this way)

Role of children in transmission

23. SAGE endorsed the paper 'Update on transmission and symptoms in children'.

24. Evidence suggests that pre-school and primary school-aged children are not currently playing a driving role in transmission of SARS-CoV-2. In educational settings it appears that there is limited transmission from children of primary school age (low confidence). The evidence for the role of children in transmission within households is mixed.

25. Further studies are needed to understand the impact of activities and contact rates outside of school settings. Evidence suggests that mixing outside of the home during school closures continued to occur, despite guidance in place. Some studies highlighted more activities and contacts among older children, particularly those aged 16 to 18 years, compared to younger age groups.

26. SAGE noted the negative implications of school closures, particularly on vulnerable children where learning at home is likely to reinforce inequalities. There are also associated risks to mental health and social and emotional development.

27. Higher incidence has been documented among older children and young adults in the 16 to 29 age group. Within this group there is some evidence of increased incidence for 15 to 17-year olds, but this is currently much lower than among 18 to 21-year olds.

28. However, recent results from the ONS household infection study found that children aged 11 to 16 had higher infection rates than adults in all age groups above 25 (high confidence)[footnote 1].

29. In mostly hospitalised patients, fever and cough are the predominant symptoms of COVID-19 in children and young people, and other symptoms such as runny nose, sore throat and gastrointestinal symptoms are far less common (high confidence).

30. There is evidence of transmission from children to older groups within households but the magnitude of effect is not clear (low confidence).

31. As noted previously, though the role of children in transmission is limited, opening or closing schools would be expected to have an impact on community transmission (for example by changing the activities of a large number of adults).

Routes of transmission

32. SAGE considered a draft of a PHE and NHSTT case control study on transmission risks in different settings and suggested additional factors that could be considered in future iterations. It was noted that selection of the control group is of particular importance in determining the validity of results.

33. There was some evidence that those working in education, health and social care may have greater exposure to infection. However, further studies are needed to better understand where transmission is taking place and where people are at most risk. A range of sources of evidence are needed, to include cohort studies.

Actions:

- SAGE secretariat to convene a small group to consider the range of sources of evidence on the settings associated with highest transmission risk, and to identify any further evidence required. Cabinet Office to ensure coordination of the various activities across government

List of actions

- SAGE secretariat to convene a group to consider how serological studies could be carried out in areas of high prevalence and who would undertake such a study, with input from SPI-M
- SPI-M to review JBC projections of hospital admissions; NHS to note the SPI-M projections
- SPI-M to revise segmentation note in line with SAGE comments
- SPI-M secretariat to estimate the potential numbers of hospital admissions in the under 60s if a segmentation strategy were followed (if it were possible to effectively segment the population in this way)
- SAGE secretariat to convene a small group to consider the range of sources of evidence on the settings associated with highest transmission risk, and to identify any further evidence required; Cabinet Office to ensure coordination of the various activities across government

Attendees

Scientific experts

- Patrick Vallance (GCSA)
- Chris Whitty (CMO)
- Andrew Morris (Edinburgh)
- Angela McLean (MOD CSA)
- Brooke Rogers (KCL)
- Calum Semple (Liverpool)

- Catherine Noakes (Leeds)
- Charlotte Watts (DfID CSA)
- Fliss Bennee (Technical Advisory Cell Wales)
- Graham Medley (LSHTM)
- Ian Boyd (St Andrews)
- Ian Diamond (ONS)
- Ian Young (CSA Health NI)
- Isabel Oliver (PHE)
- James Rubin (KCL)
- Jenny Harries (dCMO)
- Jeremy Farrar (Wellcome)
- Jim McMenamin (Health Protection Scotland)
- John Edmunds (LSHTM)
- Jonathan Van Tam (dCMO)
- Maria Zambon (PHE)
- Mark Walport (UKRI)
- Mark Wilcox (Leeds)
- Michael Parker (Oxford)
- Peter Horby (Oxford)
- Rob Orford (Wales CSA)
- Russell Viner (UCL)
- Sheila Rowan (Scotland CSA)
- Steve Powis (NHS England)
- Susan Hopkins (PHE)
- Wendy Barclay (Imperial)
- Yvonne Doyle (PHE)

Observers

- Alan Penn (MHCLG CSA)
- Andrew Curran (HSE CSA)
- Ben Warner (No.10)
- Imran Shafi (No 10)
- John Aston (HO CSA)
- Julian Fletcher (CO)
- Osama Rahman (DfE CSA)
- Paul Cosford (PHE)
- Paul Monks (BEIS CSA)
- Phil Blythe (DfT CSA)
- Rupert Shute (Deputy CSA HO)
- Thomas Waite (JBC)
- Tom Rodden (DCMS CSA)
- Vanessa MacDougall (HMT)

Secretariat

- Simon Whitfield

Total: 69

1 scientific expert, 7 observers and government officials and 12 Secretariat members redacted.

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1. Footnote addendum 21 October 2020, not part of the minutes of SAGE 62: This result is confirmed by the latest data available from the REACT study, which additionally found high rates of infection in primary school aged children in some regions. Recent ONS work indicates that infected children aged up to 16 are more likely to transmit to others in their household than adults (medium confidence). These data were not available in time for SAGE 62 but will be discussed at SAGE 63.