Transparency data

Sixty-sixth SAGE meeting on COVID-19 - 5 November 2020

Published 27 November 2020

Contents

Held via Video Teleconference.

Summary

1. The latest estimate of R for the UK is 1.1 to 1.3. Estimates from SPI-M suggest that there are between 58,000 and 83,000 new infections per day in England.

2. While there is some evidence that the rate of growth of the epidemic is slowing in some areas of the country, there is consensus that the epidemic continues to grow in England. If well-adhered to, the lockdown measures starting in England on 5 November are likely to reduce R to less than 1 though it will take 2 to 3 weeks to be able to assess the impact of these. The effects of the tiering system will be seen before that.

3. SAGE noted at its previous meeting the inevitable risk from social mixing during the festive period, and that a substantial reduction in prevalence is required ahead of any changes to behaviours or interventions for that period. SAGE reiterated that national guidance for celebrations is the most viable option to minimise transmission and to prevent a large increase in R.

4. The application of air cleaning devices may be useful to reduce airborne transmission risks in poorly ventilated spaces. Air cleaning devices are not a substitute for ventilation and should never be used as a reason to reduce ventilation. Ventilation should be assessed, and improved if possible, before considering using an air cleaner.

5. There is evidence of transmission of a variant of SARS-CoV-2 from mink to humans, with a number of workers on mink farms in Denmark being infected.

Situation update

6. The latest estimate of R for the UK and England is 1.1 to 1.3, while the daily growth rate estimate for new infections is +2% to +4%. This equates to a doubling time for new infections of 20 to 31 days in the UK, and 19 to 28 days in England, but there are variations across regions and age groups.

7. While there is some evidence that the rate of growth of the epidemic is slowing in some areas of the country, there is consensus that the epidemic continues to grow in England as a whole. There does not appear to be a slowing in growth across all age groups with some evidence of infection rates still growing faster in over 60's than younger age groups where it is now falling in some areas.

8. Estimates of R are generally highest in regions of England where prevalence is lower. The prevalence in North West England is very high and significant pressures on the healthcare system and increasing mortality will persist until R is brought below 1 and remains below 1.

9. As previously noted, R and growth rate estimates rely on lagged data, 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.

10. Changing patterns in testing continue to make it hard to interpret changes in confirmed case numbers. As testing becomes more locally-led, the application of Pillar 2 testing is varying more from place to place. As a result, it is very hard to interpret changes in pillar 2 testing data in different parts of the country.

11. Estimates from SPI-M suggest that there are between 58,000 and 83,000 new infections per day in England.

12. The ONS infection survey estimates that from 25 to 31 October an average of 618,700 people had COVID-19 in the community in England, which is a significant increase on the previous estimate. The study also estimates that during the same week there were 45,700 new infections per day in England. It is highly likely that prevalence has continued to grow since this latest survey. The data do not include people in care homes, hospitals, or university halls of residence.

13. There is evidence that the introduction of the local COVID alert levels (tiering) has helped reduce contacts, though the effect is modest. Initial analysis from SPI-M shows a greater effect from tier 3 interventions than from tiers 1 or 2. CoMix data also suggest that moving from tier 2 to tier 3 made the largest impact on reducing the mean number of daily contacts. It is not yet clear whether the enhanced tier 3 measures applied are sufficient to reduce the reproduction number below 1 consistently.

14. If the tiers applied to localities are primarily based on the number of confirmed cases rather than growth rate, and if the highest tier does not reduce R substantially below 1, this would result in all localities rising to the highest tier and remaining at high prevalence. SAGE noted at its previous meeting that this would result in prolonged periods of high incidence, and consequently high levels of hospitalisations and deaths.

15. It will take 2 to 3 weeks to be able to assess the impact of new measures in England. The effects of the tiering system will be seen before that. If well-adhered to, the lockdown measures starting in England on 5 November are likely to reduce R to less than 1. If this reduction in R is sustained until 2 December, the number of hospital admissions and deaths would be expected to fall until at least the second week of December.

16. The longer-term outlook depends on both the nature of non-pharmaceutical interventions that are implemented in England after 2 December and policies put in place over the festive period.

17. Healthcare and social care associated infections will need to remain an area of focus, as these new measures will not address ongoing transmission within those settings, though a reduction in community prevalence will reduce the risk of further introductions into those settings.

18. Data continue to show an increase in nosocomial infection, particularly in those areas with high prevalence. SAGE reiterated that whilst mitigations are applied in hospitals and care homes, these are less likely to be effective when prevalence is high (see SAGE 63 and 64). The NHS is operating a higher proportion of non-COVID services than it was earlier in the epidemic, which adds to the challenge.

19. There are differences in levels of nosocomial infection between organisations, even where community prevalence is similar, which suggests that taking appropriate action can mitigate the risk. It remains important to implement infection control measures and to monitor levels of infection in healthcare workers.

20. SAGE noted the need to balance the recognised benefits to care home residents in terms of health and wellbeing from visits with the risk of introduction of infection. Evidence shows that isolation has a strongly negative impact on the quality of life for residents.

21. CO-CIN data also show an increase in the length of ICU stays in some regions, which may add to pressures on the healthcare system.

22. Estimates of R for Scotland and Northern Ireland span 1 (0.9 to 1.1 and 0.9 to 1.2 respectively), and the estimate for Wales has decreased slightly (1.0 to 1.3).

23. It is too early to ascertain the effectiveness of measures introduced in Scotland, Wales and Northern Ireland. Available mobility data show a large reduction in travel patterns in Northern Ireland following the introduction of new measures on 16 October, and Wales following the firebreak

introduced on 24 October.

24. There is evidence of transmission of a variant of SARS-CoV-2 from mink to humans, with a number of workers on mink farms in Denmark being infected. SAGE will consider these developments at its next meeting when more information is expected to be available.

Actions:

- SPI-M secretariat to update consensus statement to show what models would project in the absence of any changes to interventions
- SPI-M Chairs, CMO and National Statistician to discuss age structures used in SPI-M models and how differences in levels and growth rates of new infections in different age groups affect model outputs including projected hospitalisations
- SAGE secretariat to schedule SAGE discussion in 3 weeks' time on new data on schools (with verbal update on progress ahead of that if required)
- Hospital Onset COVID group, NHS, and DHSC to note evidence of increasing nosocomial and care home transmission and consider any further action needed
- NERVTAG to review emerging evidence around infection in mink and transmission to humans, with input from CVO, PHE and COG-UK, to be discussed at SAGE on 12 November

Celebrations and observances during COVID-19

25. SAGE endorsed the paper 'Key Evidence and Advice on Celebrations and Observances during COVID-19'.

26. Major celebrations represent a special or unique occasion for participants such that COVID-19 related behavioural norms might be relaxed or suspended. This is highly likely to precipitate nationwide increases in transmission when celebrations are also public holidays (high confidence).

27. As previously advised by SAGE, increased transmission is likely to result from more social mixing during celebrations, often involving gatherings beyond habitual networks and across regions, and in larger groups (high confidence). Multiple periods of relaxations in close succession will have amplified cumulative impacts (high confidence).

28. The impact of a celebration will depend on the state of the epidemic at the time. Celebrations and observances will have less of an impact on the number of infections if prevalence is low before the event (high confidence). SAGE reiterated that national guidance for celebrations is the most viable option to minimise transmission and to prevent a large increase in R.

29. There is a need for continued adherence to current guidance, particularly individual and household/support bubble-isolation, and must be emphasised in the context of celebrations (high confidence). If guidelines are relaxed for some festivals, some may reason that this can be applied on other occasions.

30. Celebrations are composed of collections of behaviours (for example visiting families, sharing food, community gatherings). Focusing on enablers or alternatives to these behaviours, rather than considering each celebration separately, encourages consistency between different events (Medium

Confidence). Additionally, observance-specific behaviours need to be seen in the context of the pandemic and the risks they present.

31. Approaches to celebrations vary with individuals, families and communities adopting different behaviours and emphasising different traditions. Any alternatives should be codeveloped. This increases the potential of alternatives to reflect and reinforce shared norms and has positive implications for adherence.

32. As previously, the need for minimisation of risks should be balanced by recognition of the social and cultural importance of some aspects of celebrations. Differential treatments of specific celebrations/observances from different traditions risks undermining legitimacy, diminishing perception of risk, and engendering resentment (high confidence). Interventions will have differential impacts on vulnerable groups and other specific groups like children and those without digital connectivity that must be acknowledged and addressed.

33. SAGE noted in its previous meeting that the winter festive season presents a significant transmission risk due to potential indoor gatherings of people in larger groups from multiple households for prolonged periods, often with poor ventilation. Specific, evidence-based guidance on managing transmission risk in the home should be produced to inform those who have visitors in their home during celebrations and needs to be available to the public well in advance of the festive season.

34. Clear guidance and advice can help people understand how to identify and manage transmission risks. Communications should explain that actions that pose a low risk at individual level may nevertheless lead to major increases in risk in wider communities. Highlighting features of celebrations which reflect those associated with superspreading events (for example. indoor gatherings of people from multiple households over a prolonged period) may reinforce people's understanding of the risks to themselves and others.

35. Amnesties for celebrations and observances also risk discrediting previous guidance and any future guidance. If guidelines are relaxed for some festivals, some may reason that this can be applied to other celebrations such as birthdays and anniversaries, using the same logic that was applied to the amnesty when associating same level of importance and values on other celebrations.

Actions:

- Cabinet Office to hold briefing for relevant policy officials (including from Devolved Administrations) on 6 November

Air cleaning and personal decontamination devices

36. SAGE endorsed the paper 'Potential application of Air Cleaning devices and personal decontamination to manage transmission of COVID-19'.

37. The application of air cleaning devices may be useful to reduce airborne transmission risks in poorly ventilated spaces. Benefits of such devices diminish when ventilation increases unless there are identified specific risks.

38. Air cleaning devices are not a substitute for ventilation and should never be used as a reason to reduce ventilation. Ventilation should be assessed, and improved if possible, before considering using an air cleaner.

39. At present, there is a wide range of technologies and devices on the market for air cleaning, however there are few data that demonstrate the effectiveness against SARS-CoV-2. Assessment of effectiveness is therefore has to be based on understanding of known efficacy against other viruses and on virus transmission principles.

40. Effectiveness will typically be lower in the real-world than in test conditions. There may be unintended consequences from the application of air cleaning devices including emissions that could cause health effects, noise, changes in temperature and drafts.

41. Air Filters and germicidal UV are likely to be beneficial if correctly deployed (medium confidence). Positioning of these devices is important, and for UV there can be safety risks if this is not done correctly. Air mixing is also an important factor in effectiveness.

42. Devices based on other technologies (ionisers, plasma, chemical oxidation, photocatalytic oxidation, electrostatic precipitation) have limited evidence base, and can produce undesirable secondary chemical products that could lead to negative health effects (medium confidence).

43. The use of chemical sprays such as triethylene glycol in an occupied space has a limited evidence base in being effective in reducing airborne virus transmission risks, and has potential negative health effects for those exposed over a long period of time (medium confidence).

44. Spray booth type devices have serious health impact and safety concerns and are unlikely to be effective.

Actions:

- BEIS and HSE to use paper as evidence based for determining what works and taking appropriate policy and regulatory action including guidance as required; BEIS and DfT CSAs to share with DIT

List of actions

- SPI-M secretariat to update consensus statement to show what models would project in the absence of any changes to interventions
- SPI-M Chairs, CMO and National Statistician to discuss age structures used in SPI-M models and how differences in levels and growth rates of new infections in different age groups affect model outputs including projected hospitalisations
- SAGE secretariat to schedule SAGE discussion in 3 weeks' time on new data on schools (with verbal update on progress ahead of that if required)
- Hospital Onset COVID group, NHS, and DHSC to note evidence of increasing nosocomial and care home transmission and consider any further action needed
- NERVTAG to review emerging evidence around infection in mink and transmission to humans, with input from CVO, PHE and COG-UK, to be discussed at SAGE on 12 November
- Cabinet Office to hold briefing for relevant policy officials (including from DAs) on 6 November
- BEIS and HSE to use paper as evidence based for determining what works and taking appropriate policy and regulatory action including guidance as required; BEIS and DfT CSAs to share with DIT

Attendees

Scientific experts

- Patrick Vallance (GCSA)
- Chris Whitty (CMO)
- Andrew Curran (HSE CSA)
- Andrew Morris (HDR UK)
- 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 (Health, NI CSA)
- Jenny Harries (dCMO)
- John Aston (HO CSA)
- John Edmunds (LSHTM)
- Jonathan Van Tam (dCMO)
- Kamlesh Khunti (Leicester)
- Lucy Yardley (Bristol/Southampton)
- Maria Zambon (PHE)
- Mark Walport (UKRI)
- Mark Wilcox (Leeds)
- Michael Parker (Oxford)
- Nicola Steedman (dCMO Scotland)
- Peter Horby (Oxford)
- Rob Orford (Health, Wales CSA)
- Sheila Rowan (CSA Scotland)
- Steve Powis (NHS England)
- Susan Hopkins (PHE / NHST&T)
- Tom Rodden (CSA DCMS)
- Wendy Barclay (Imperial)
- Yvonne Doyle (PHE)

Observers and government officials

- James Benford (HMT)
- Jim McMenamin (Health Protection Scotland)
- Julian Fletcher (CO)
- Rupert Shute (HO dCSA)

- Paul Monks (BEIS CSA)
- Phil Blythe (DfT CSA)
- Osama Rahman (DfE CSA)

Secretariat (all GO-Science)

- Simon Whitfield
- Stuart Wainwright

Total: 65

8 observers and government officials and 15 Secretariat members redacted.