

Ninety-second SAGE meeting on COVID-19, 09 June 2021

Held via Video Teleconference

Situation update

1. R has continued to increase nationally and is estimated to be between 1.2 and 1.4 in England and in Scotland, between 1.0 and 1.4 in Wales, and between 0.8 and 1.3 in Northern Ireland. These estimates will not yet fully reflect the recent rapid increases in transmission of the delta (B.1.617.2) variant. It is difficult to separate the effects of the delta variant's growth from any recent changes, such as those related to the relaxation of measures on 17th May in England.
2. R is now estimated to be 40–80% higher for delta than for alpha (B.1.1.7), although a figure higher or lower than this cannot be ruled out.
3. The number of new infections also continues to increase, and SPI-M estimates that there are between 7,000 and 13,000 new infections per day in England. The doubling time is currently around 10 days but may be as low as 7 days. There continue to be local differences but in most areas infections are increasing. The delta variant represents the majority of cases in almost all areas in England. ONS data indicate that growth in the delta variant may be slowing in Scotland, though the trends are uncertain and this may be related to sampling.
4. It is not yet clear why a very small number of areas with high prevalence of the delta variant are showing a plateau or decrease in cases (e.g., Bolton), although it may relate in part to intense local control activity. These areas are exceptions to the national trend, and inferences should not be drawn from these outliers.
5. While the proportion of cases that result in hospitalisation has decreased significantly due to vaccination, the number of infections and hospitalisations are still linked. If the number of cases doubles and the age distribution of cases doesn't change, a week or so later the number of hospitalisations is also expected to double. This relationship will become clearer as hospitalisations increase from the low levels they are currently at. At present, this proportion is one of the key uncertainties in modelling the impact of changes to measures.
6. CO-CIN analysis continues to show that older people are making up a decreasing proportion of those in hospital, further demonstrating that vaccines are protecting against hospitalisations. There is some emerging evidence of better outcomes for those who are in hospital, which may be related to hospitalised people being younger on average than in previous waves, although this is still based on a small sample. In Scotland there is evidence of reduced length of stay and a reduction in the proportion of people requiring oxygen.
7. PHE data show an increase in positivity rates in care homes in London, though the total number of cases remains low. Care homes may lag community transmission and these data should continue to be closely monitored.
8. PHE data show that some minority ethnic groups are more likely to become infected, and this has continued to be the case even as the delta variant has spread more widely (so is not only related to where it was introduced).

ACTION: ONS to consider potential data collection and analysis of differences by ethnicity, including in the surveillance study.

Roadmap modelling

9. There remains considerable uncertainty about the scale of the expected resurgence in infections and hospital admissions, although the modelled scenarios show a larger wave than equivalent scenarios modelled ahead of roadmap step 3, due to the emergence of the more transmissible delta variant.
10. Key sources of uncertainty are the growth advantage of delta, the effectiveness of vaccines against severe disease caused by delta, and the extent to which behaviours and therefore transmission will change, particularly after step 4 is taken. Some continued transmission reduction from baseline measures and/or behaviour change beyond step 4 is assumed in the modelling, but the impact of these factors cannot be estimated with any certainty.
11. A number of scenarios have been modelled with results which are highly sensitive to the assumptions made. In any of these scenarios, taking step 4 of the roadmap in England at a later date than 21st June reduces the total number of hospital admissions and deaths that occur over the duration of the wave, by allowing more people to be protected by vaccination before transmission increases further. It is important to recognise that these would be COVID-19 admissions and deaths avoided rather than simply delayed.
12. Longer delays prevent more hospitalisations and deaths, but most of the benefit comes from the first 4 weeks of delay (from 21st June) in the main scenarios modelled. This is partly because 4 weeks is a long enough to ensure significantly more vaccination coverage and would push step 4 close to the school holidays, when transmission is expected to be reduced.
13. Although the absolute impact varies depending on the scenario and associated scale of resurgence, the proportional impact of a 4-week delay across multiple scenarios is consistently around a third to a half reduction in the peak number of daily hospital admissions. This peak is expected to occur around August, though seasonal and behavioural factors are still not fully understood and may affect this timing.
14. A 2 or 4-week delay would also allow more data to accumulate, meaning that the risks of proceeding with step 4 would be better understood before it was taken. In particular, the impact of the delta variant on hospitalisations (particularly for vaccinated people) could be better understood. The modelling does not reflect preliminary estimates from PHE and PHS of a higher rate of hospitalisation of cases for the delta variant compared with the alpha variant, which are still highly uncertain.
15. Reducing uncertainty about whether there may be unsustainable pressure on the NHS also reduces the risk of needing to consider reimposing measures. Although there is a risk of unsustainable pressures even with a delay, it is much lower.
16. A delay of 2 weeks would have a significant effect when compared to no delay, but less effect than 4 weeks. Splitting step 4 into two stages could also have some benefits.
17. Taking step 4 of the roadmap on the 21st June carries significant uncertainty and risk. It is not possible at this point to determine whether this would result in unsustainable pressure on the NHS. The level of uncertainty is such that it is not possible to know if step 4 were taken on this date, whether the resurgence would be considerably smaller or larger than previous waves.
18. Currently, most people who are admitted to hospital are not fully vaccinated, though this proportion will decrease over time as the number of unvaccinated people reduces. It should be expected that the proportion of hospital admissions that are vaccinated people will rise as more vaccines are administered. The potential impact of waning immunity and the possible role of revaccination remain unclear.
19. There are further uncertainties during and beyond the period covered by the scenarios, including the potential impact of any new variants. In some scenarios from one modelling group, much lower transmission over summer and rapidly waning

immunity could result in a second peak in the autumn, or an extended period of high prevalence.

ACTION: CO C19 task force and NHSE to check that they have consistent sources of data on hospitalisations.

List of actions

ONS to consider potential data collection and analysis of differences by ethnicity including in the surveillance study.

CO C19 task force and NHSE to check that they have consistent sources of data on hospitalisations.

Attendees

Scientific experts (38): Patrick Vallance (GCSA), Chris Whitty (CMO), Angela McLean (MoD, CSA), Calum Semple (Liverpool), Catherine Noakes (Leeds), Charlotte Deane (UKRI), Charlotte Watts (FCDO, CSA), Fliss Bennee (Welsh Government), Graham Medley (LSHTM), Harry Rutter (Bath), Ian Boyd (St Andrews), Ian Diamond (ONS), Ian Hall (Manchester), Ian Young (Northern Ireland Executive, Health CSA), Jamie Lopez Bernal (PHE), Jeanelle de Gruchy (ADPH), Jenny Harries (UKHSA), Jeremy Farrar (Wellcome), John Edmunds (LSHTM), Jonathan Van-Tam (dCMO), Julia Gog (Cambridge), Kamlesh Khunti (Leicester), Linda Partridge (Royal Society), Maria Zambon (PHE), Mark Walport, Mark Wilcox (Leeds), Matt Keeling (Warwick), Meera Chand (PHE), Michael Parker (Oxford), Nicola Steedman (Scottish Government, dCMO), Rob Orford (Welsh Government, Health CSA), Peter Horby (Oxford), Sharon Peacock (PHE), Stephen Powis (NHS England), Susan Hopkins (PHE/NHST&T), Wendy Barclay (Imperial), Wei Shen Lim (Nottingham), and Yvonne Doyle (PHE).

Observers and government officials (28): Alan Penn (MHCLG, CSA), [REDACTED] Andrew Curran (HSE, CSA), Andrew Morris (Edinburgh), [REDACTED] Charlette Holt-Taylor (DHSC), Chris Williams (Welsh Government), Daniel Kleinberg (Scottish Government), [REDACTED] Gideon Henderson (Defra, CSA), Giri Shankar (PHW), Henry Cook (No. 10), James Benford (HMT), Jennifer Rubin (HO, CSA), Julian Fletcher (CO), [REDACTED] Liz Lalley (Welsh Government), Lucy Chappell (KCL), Osama Rahman (DfE, CSA), [REDACTED] Paul Monks (BEIS), [REDACTED] Rob Harrison (CO), Rosie Bate-Williams (No. 10), Thomas Waite (JBC), [REDACTED] Tom Rodden (DCMS, CSA), [REDACTED]

Secretariat (all GO-Science) (17): [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] Simon Whitfield, Stuart Wainwright, [REDACTED] and Zoë Bond.

Total: 83