Ninety-first SAGE meeting on COVID-19, 03 June 2021

Held via Video Teleconference

Situation update

1. R is estimated to be between 1.0 and 1.2 in England, between 1.1 and 1.3 in Scotland, between 0.8 and 1.2 in Wales, and between 0.7 and 1.1 in Northern Ireland. These estimates will not yet fully reflect changes related to the relaxation of measures on 17th May in England or the recent rapid increases in transmission of the delta (B.1.617.2) variant. The most recent ONS infection survey data show an increase in the number of infections nationally.
2. The delta variant has a significant growth advantage over the alpha (B.1.1.7) variant (high confidence) and in local areas with higher proportions of S-gene positive (a proxy for delta variant) cases, the number of infections is increasing more rapidly. All areas with more than 75% S-gene positives (where status is known) are seeing growing epidemics.
3. The size of this growth advantage remains unclear, with credible estimates ranging from around 25% to 100%. Most estimates appear to be clustering around 40% to 60%. Further data over the next week or two will reduce this uncertainty, although are unlikely to significantly reduce these estimates, and will also give a clearer indication of the trajectory of the epidemic since the changes introduced on the 17th May in England.
4. Attributing reasons for the growth advantage of delta is complex. Part of the explanation is likely to be a biological transmission advantage, and as noted at SAGE 90 there is evidence of some reduction of vaccine effectiveness against infection, although the impact for severe disease is still unknown. There may also be other factors such as a shorter generation time or a difference in the contact patterns of those infected.
5. CO-CIN analysis shows that older people are making up a decreasing proportion of those in hospital, demonstrating that vaccines are protecting against hospitalisations. There are also some indications that those who are hospitalised may have less severe disease though this is based on a small number of cases. These data are not recent enough to include a significant number of delta variant cases.
6. Analysis from PHE and PHS shows some early signals that the delta variant may be associated with increased risk of hospitalisation compared to the alpha variant (low confidence). Numbers are still small, there is considerable uncertainty and there are a number of potential confounding factors. There is no evidence of a difference in length of stay or worse outcomes for those who are hospitalised with the delta variant.
7. Whatever the size of the growth advantage that the delta variant has, delaying further increases in contacts (e.g., step 4 of the roadmap in England) would allow more people to be protected by vaccination before transmission increases further (high confidence). The effect of this would be to delay and reduce the peak number of hospital admissions, and also to reduce the total number of admissions (high confidence). Further modelling will give a better indication of the scale of this impact, but preliminary illustrative modelling shows that even a delay of a few weeks could significantly reduce hospitalisations. Any delay would also allow for further understanding of how cases of the delta variant affect hospitalisations as more data accumulate. A longer delay would have more impact.

8. The rising prevalence of the delta variant will increase the importance of mitigation measures. If the infectious dose were lower for this variant, this might increase the relative importance of measures to reduce the risk of airborne transmission, in particular (e.g., ventilation). Measures to reduce the risk of nosocomial transmission are crucial and will become increasingly important as COVID-19 hospital admissions increase. Updated guidance has recently been published on this and now needs to be implemented within the NHS.

ACTION: BEIS, HSE and **PHE** to continue to recognise the importance of ventilation in policy and guidance.

Attendees

Scientific experts (29): *Patrick Vallance (GCSA), Chris Whitty (CMO), Angela McLean (MoD, CSA), Calum Semple (Liverpool), Catherine Noakes (Leeds), Charlotte Watts (FCDO, CSA), Jeremy Farrar (Wellcome), Fliss Bennee (Welsh Government), Graham Medley (LSHTM), Harry Rutter (Bath), Ian Boyd (St Andrews), Ian Diamond (ONS), Ian Young (Northern Ireland Executive, Health CSA), Jeanelle de Gruchy (ADPH), Jenny Harries (UKHSA), Julia Gog (Cambridge), Kamlesh Khunti (Leicester), Linda Partridge (Royal Society), Maria Zambon (PHE), Mark Wilcox (Leeds), Meera Chand (PHE), 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), and Wei Shen Lim (Nottingham).*

Observers and government officials (21): *Alan Penn (MHCLG, CSA),* [redacted] *Andrew Curran (HSE, CSA),* [redacted] *Anna Seale (JBC), Daniel Kleinberg (Scottish Government), David Lamberti (DHSC), Fergus Cumming (JBC), Gideon Henderson (Defra, CSA), James Benford (HMT), Jennifer Rubin (HO, CSA), Jim McMenamin (Health Protection Scotland), Julian Fletcher (CO),* [redacted] *Osama Rahman (DfE, CSA), Paul Monks (BEIS, CSA), Rob Harrison (CO),* [redacted] *Tom Rodden (DCMS, CSA),* [redacted]

Secretariat (all GO-Science) (13): [redacted] *Laura Eden,* [redacted] *Simon Whitfield,* [redacted] *and Stuart Wainwright.*

Total: 63