

**Discussion (Session 3).** Peter J Diggle (Lancaster University)

Several authors have mentioned the importance of allowing for the susceptible proportion of the population. This seems to me especially difficult to estimate, especially at a local, i.e. spatially disaggregated, level. Firstly, whilst we do know local vaccination numbers, accurate estimation of asymptomatic or mildly asymptomatic case-numbers is problematic, even with the availability of data from high-quality randomised prevalence surveys such as the REACT study (Riley et al, 2021). Secondly, susceptibility is not even a binary value.

Riley, S., Ainslie, K.E.C., Eales, O., Walters, C.E., Wang, H., Atchison, C., Fronterre, C., Diggle, P.J., Ashby, D., Donnelly, C.A., Cooke, G., Barclay, W., Ward, H., Darzi, A., and Elliott, P. (2021). Resurgence of SARS-CoV-2 in England: detection by community antigen surveillance. *Science*, **372**, 990-995.