

COV/SAN/20/05 - Modelling the Evolution of SARS-CoV-2 Virulence Under Different Social Isolation Regimes

It is critical to ensure that public health responses to Covid-19 do not inadvertently promote the evolution of greater SARS-CoV-2 virulence. This research will use theoretical models to investigate how the virulence of SARS-CoV-2 evolves in response to different social distancing strategies. We will assess key factors including (i) who is isolated (all positive tests, only symptomatic, contacts, etc.), (ii) how they are isolated (family structure of isolated individuals), and (iii) effects of future vaccination. The findings will guide interventions to prevent viral transmission and mitigate future virulence.