

Supplementary Materials for

Modeling the Impact of Vaccination on COVID-19 and its Delta Variant

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Supplementary Figures

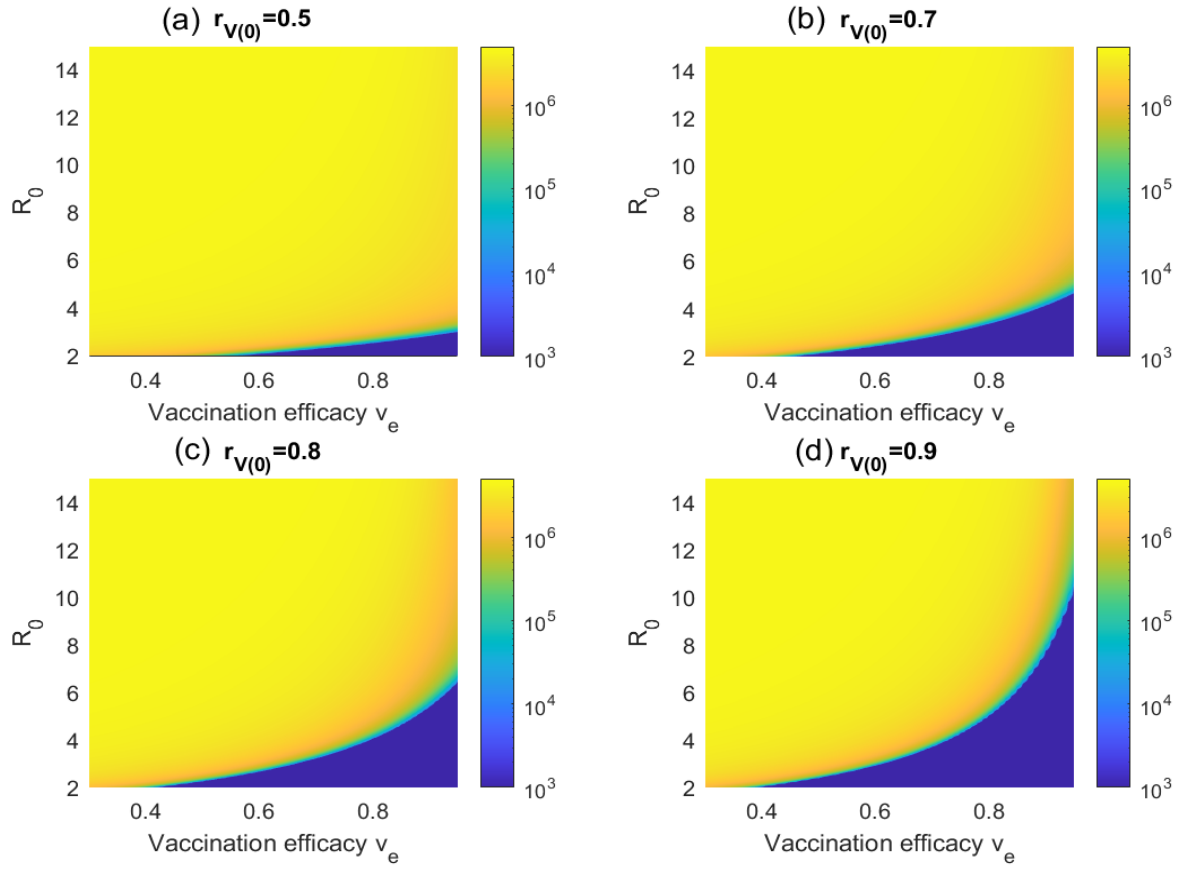


Figure S1: Cumulative hospitalizations $H_c(\infty)$ with respect to R_0 and the vaccine efficacy v_e , for a simulated Delta outbreak in Hong Kong and NPIs ($c = 0.2$).

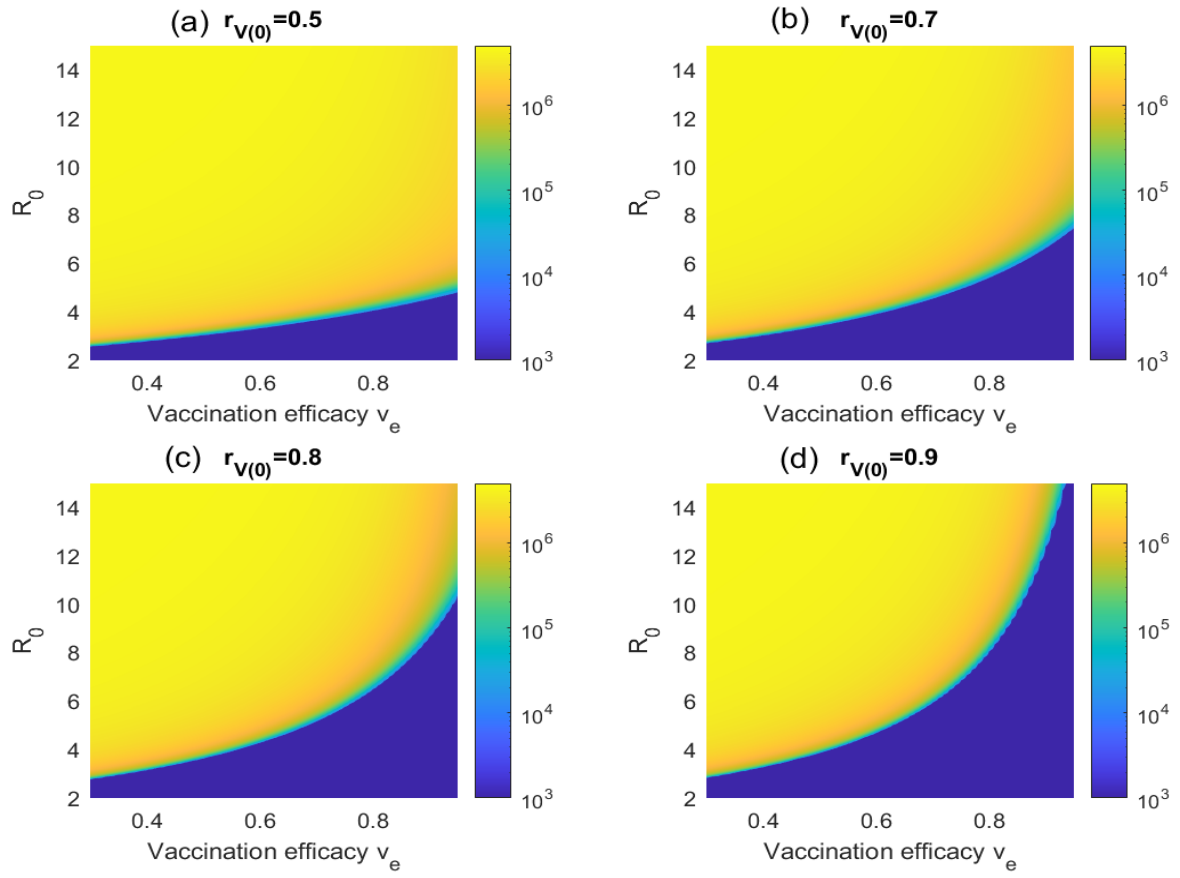


Figure S2: Cumulative hospitalizations $H_c(\infty)$ with respect to R_0 and the vaccine efficacy v_e , for a simulated Delta outbreak in Hong Kong and NPIs ($c = 0.5$).

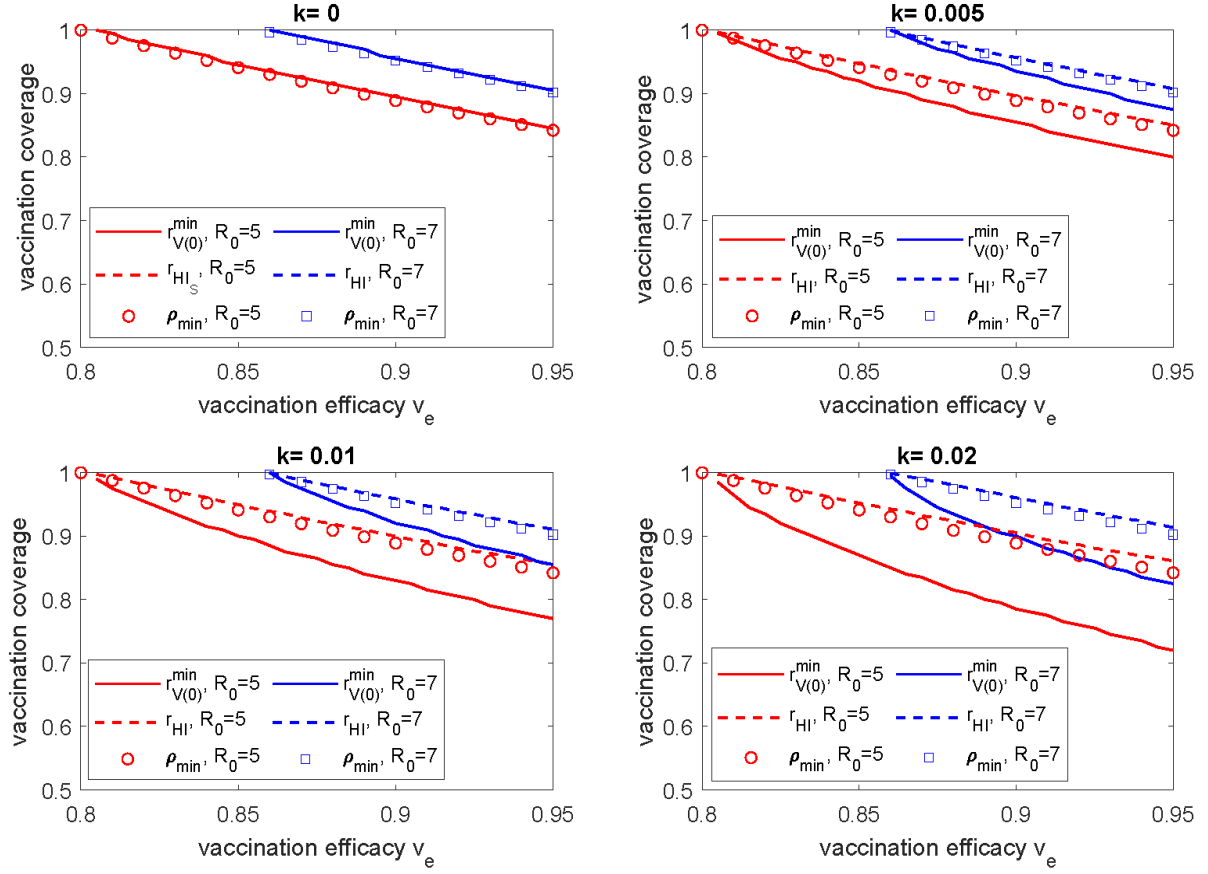


Figure S3: Minimum vaccination threshold required such that the cumulative number of hospitalizations is less than $10^{-4}N$, for different vaccine efficacies v_e and vaccination rates k , and no NPIs ($c = 0$). The theoretical herd immunity threshold ρ_{min} is also shown.

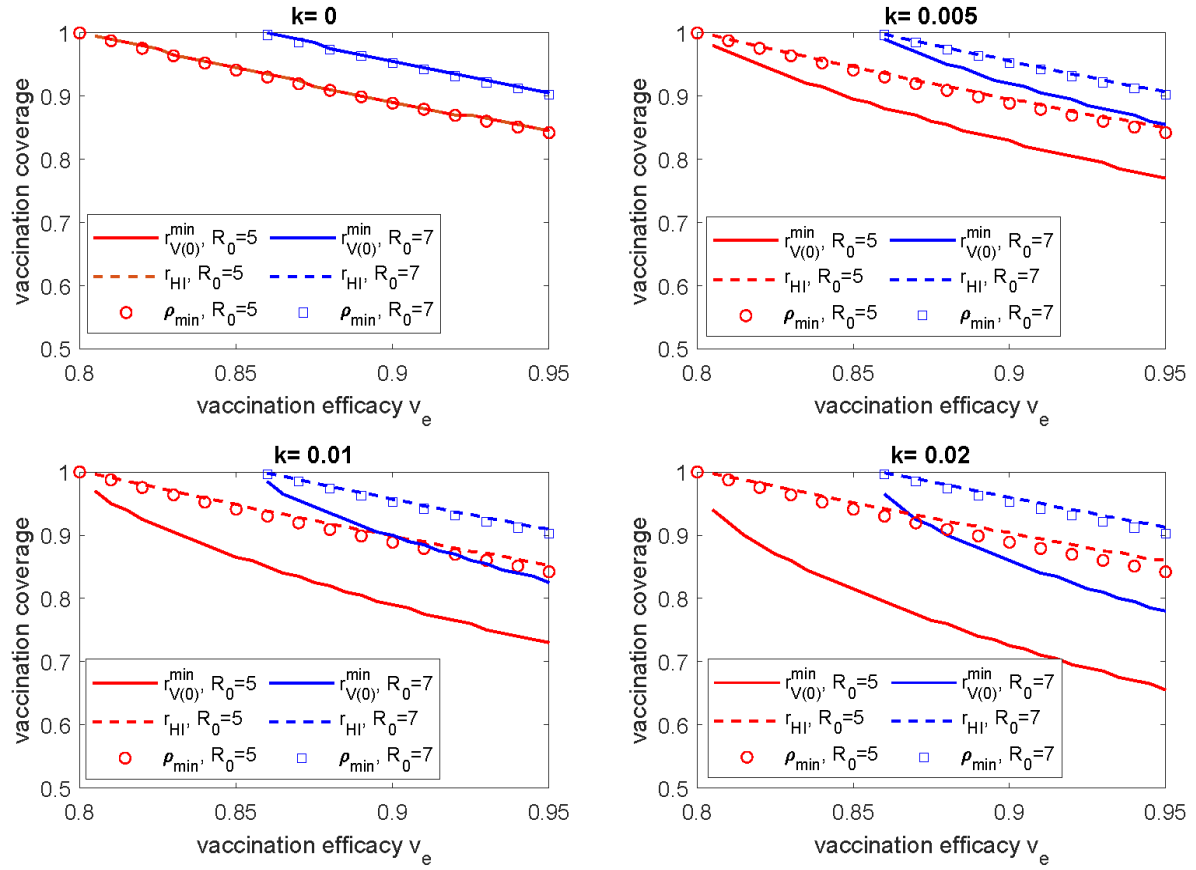


Figure S4: Minimum vaccination threshold required such that the cumulative number of hospitalizations is less than $10^{-3}N$, for different vaccine efficacies v_e and vaccination rates k , and no NPIs ($c = 0$). The theoretical herd immunity threshold ρ_{min} is also shown.