Final Size of Epidemic Dependence on  $R_0$  estimate 1.0 0.909 Infected Covid R0(2.200) 0.844 Infected  $egin{aligned} \mathscr{R}_0 &\equiv rac{eta}{\gamma} \ & \ eta \sim \mathscr{N}(\mu_eta,(\sigma_eta^2)) \end{aligned}$ 0.8  $S_{\infty}/S_0$  (percentage of population infected)  $\stackrel{\circ}{\circ}$  $R_0 + 2\sigma_{R_0}$ 0.717 Infected  $-2\sigma_{R_0}$  $\varepsilon_{\beta} = 0.100$  $\sigma_{\beta} = \mu_{\beta} \varepsilon_{\beta} = 0.049$ 2 0.0 1.0 1.5 2.5 3.0 3.5 5.0 2.0 4.0 4.5  $R_0$