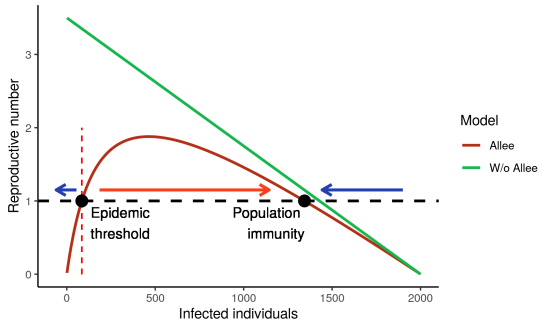
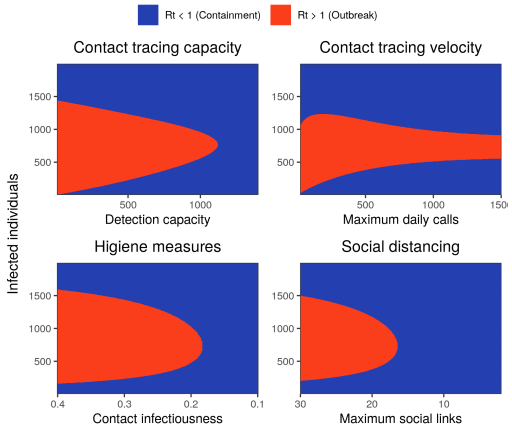
$$Rt = P_{susceptible} \cdot b_{link}(L \cdot f_c + L_{max} \cdot f_{nc})$$




**Simulated SIR Dynamics**

$$\frac{dS}{dt} \sim -\frac{\beta_{max} \cdot I}{I_{50}+I} \cdot I \frac{S}{N}$$

$$\frac{dI}{dt} \sim \frac{\beta_{max} \cdot I}{I_{50}+I} \cdot I \frac{S}{N} - \left(\frac{\gamma_{max} \cdot I}{I_{50}+I}\right)^{-1} \cdot I + NB(\mu, s)$$

$$\frac{dR}{dt} \sim -\left(\frac{\gamma_{max} \cdot I}{I_{50}+I}\right)^{-1} \cdot I$$