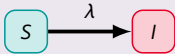


Instantaneous



$$\lambda \propto [1 - (1 - \beta)^{F\delta}]IC$$

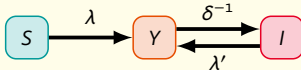
S: susceptible

I: infectious, new partner

Y: infectious, same partner

λ : incidence

Proposed



$$\lambda \propto \beta F[Y(C-1) + IC]$$

β : transm prob per contact

F: contact frequency

δ : partnership duration

C: simultaneous partnerships