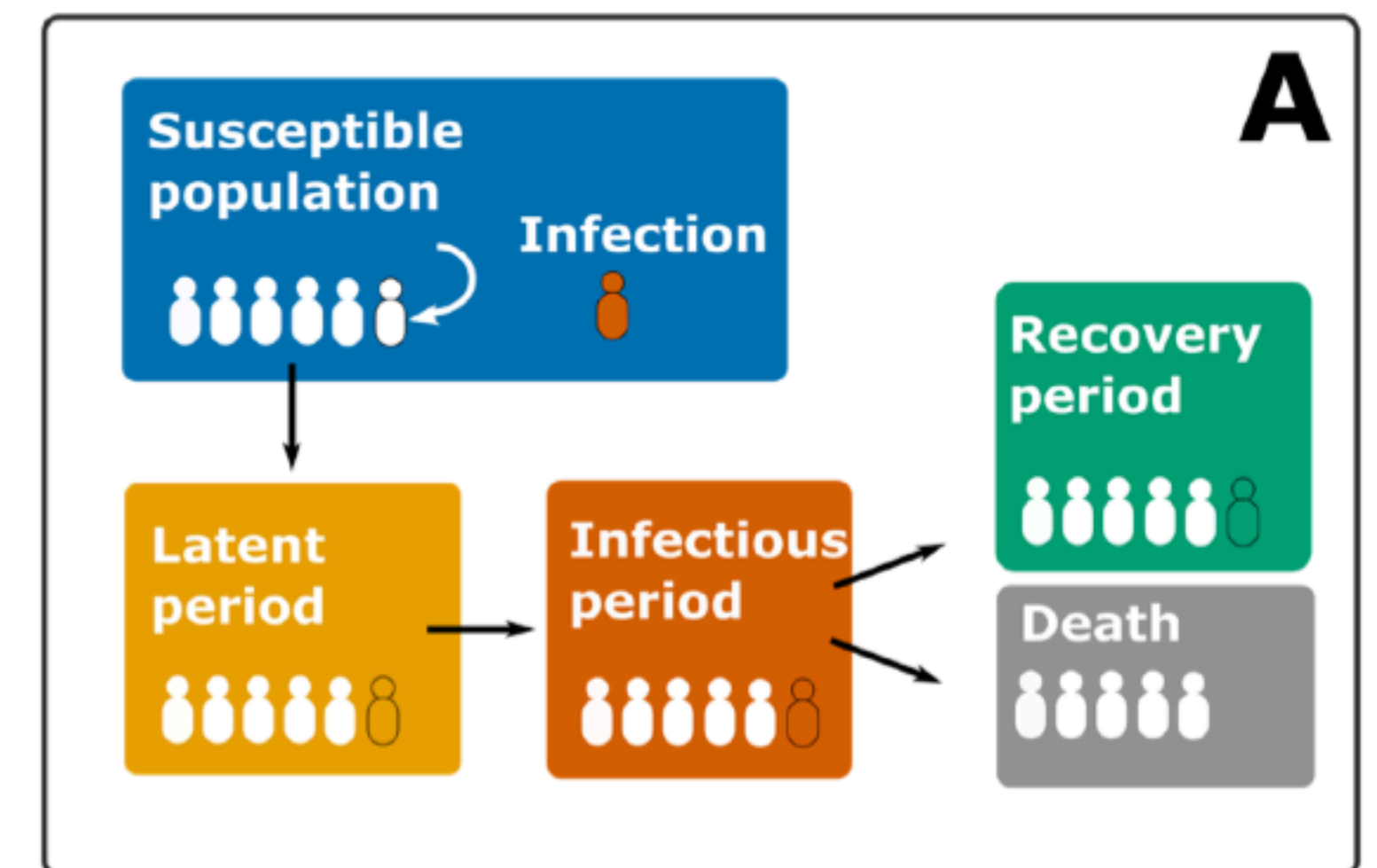# Case study
Ebola outbreak

- Population is assumed homogeneous and infinite

- Simulation begins with 1 infected

- Each infected individual is in one of the four possible states

  - latent $\sim \Gamma(2,5)$

  - infectious $\sim \Gamma(1,5)$ [new infections with rate $R_0 f_G(s)$]

  - recovered $p = 0.3$, $\text{time}_{\text{reco}} \sim \Gamma(4,3)$

  - perished $p = 0.7$, $\text{time}_{\text{die}} \sim \Gamma(4/9,9)$

Case study
Ebola

- Why we'd be interested in R_0 ?

- Why inference & prediction pipeline is important ?