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Force of Infection Model for Estimating Time to Dengue Virus Seropositivity among Expatriate Populations, Thailand

Appendix

Equation 1—Catalytic Model

$$p_t = 1 - e^{-\phi t}$$

Where p_t represents the proportion of the population at age t that are seropositive while φ represents the force of infection. Explicitly, we assumed that the probability of testing seropositive at each age was binomially distributed such that $x_t \sim Binomial(N_t, p_t)$, where p_t is the proportion of the population at age t that are seropositive, N_t is the total number of individuals of age t, and x_t is the number of individuals who are seropositive at age t.