Antibiotic drug use module

- Input: sex, age, and calendar year.
- We used a logistic regression to model whether an agent receives one dose of antibiotic drug.
- For ageint i,

$$logit(p_{antibiotic\_drug}) = \beta_{0,i} + \beta_{sex} \times sex + \beta_{age} \times age + \beta_{cal\_year} \times cal\_year,$$

  where $\beta_{i,0} \sim Normal(\mu_0, \sigma_0^2)$.
- Parameter estimates were based on the data provided in Patrick et al., Lancet Respiratory, 2020.