

$$\beta_0 \sim \text{Normal}(0, \sigma = 10000)$$

$$\beta_1 \dots \beta_6 \sim \text{Normal}(0, \sigma = 10000)$$

$$\sigma_{\text{obs}} \sim \text{Uniform}(0, 10000)$$

$$\log(\mu_i) = \beta_0 + \sum_{j=1}^6 \beta_j X_{i,j} \text{ for } i = 1 \dots 51$$

$$y_i \sim \text{Normal}(\mu_i, \sigma = \sigma_{\text{obs}})$$