Models of bites as a function of travel times

Commune (Moramanga)

$$\mu_j = exp(\beta_t T_j + \beta_0) \times pop_j$$

μ_j = the mean number of bites in commune j

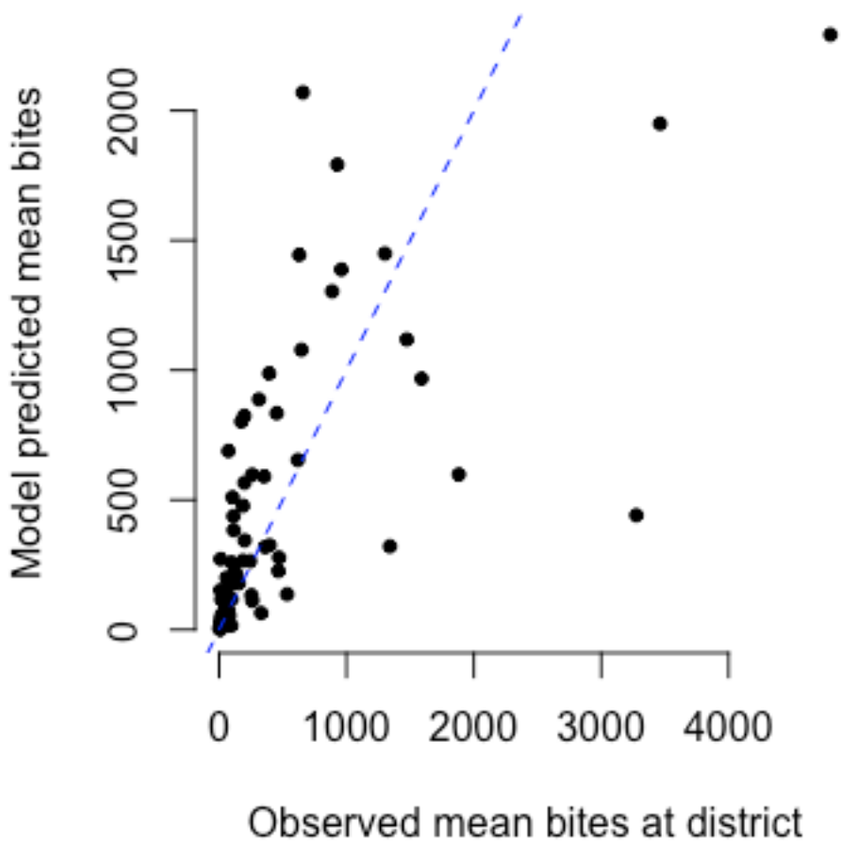
- We then estimate the likelihood of observing the bites at the commune level at the Moramanga clinic where bites are a poisson distribution around the mean μ_j

District (Mada)

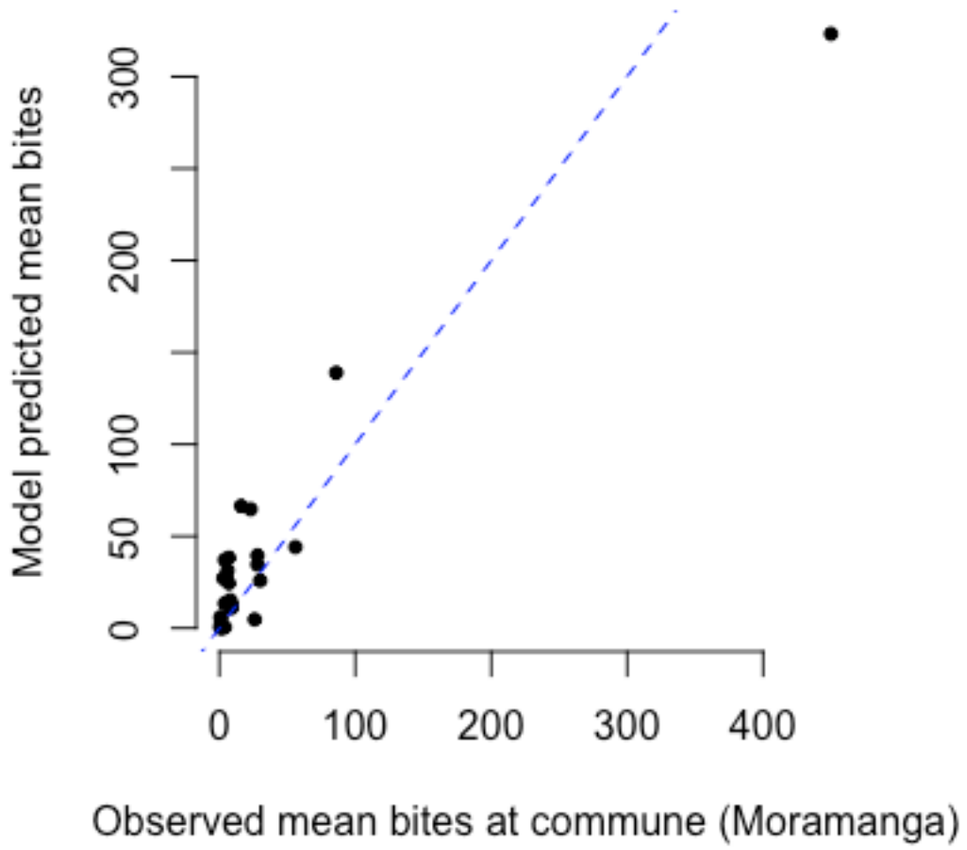
$$\mu_d = \sum_{j=1}^{j} exp(\beta_t T_j + \beta_0) \times pop_j$$

μ_d is the mean number of bites in district which is the sum of bites at the commune level given **commune level travel times** d
We then estimate the likelihood of observing the bites at the district level where bites are a poisson distribution around the mean μ

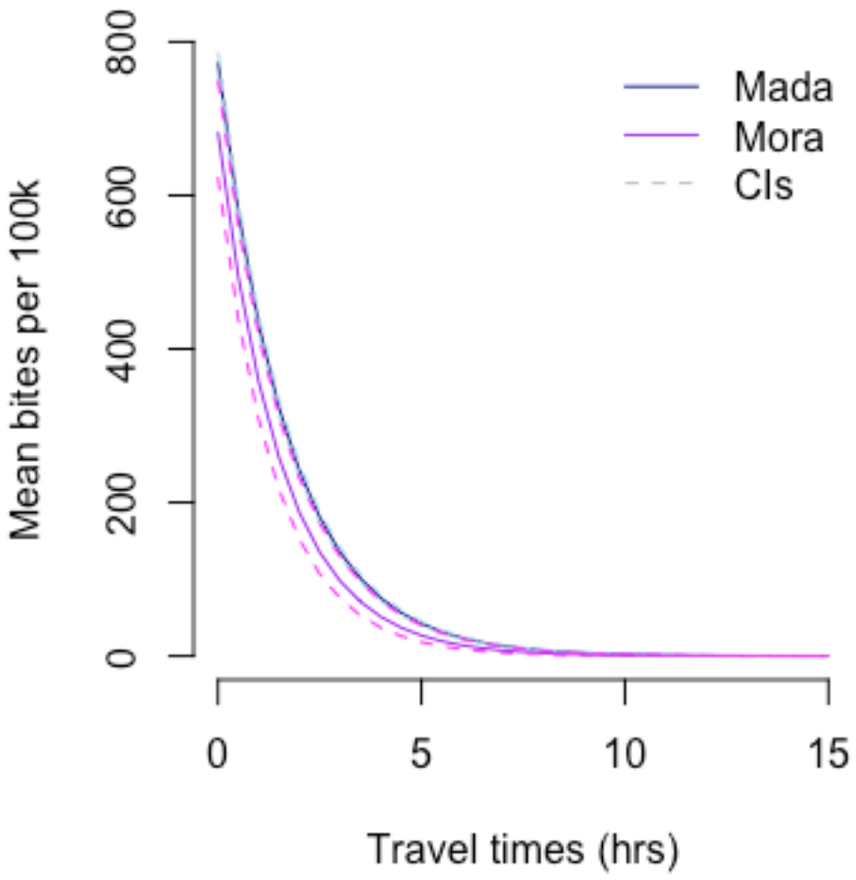
District (Mada)



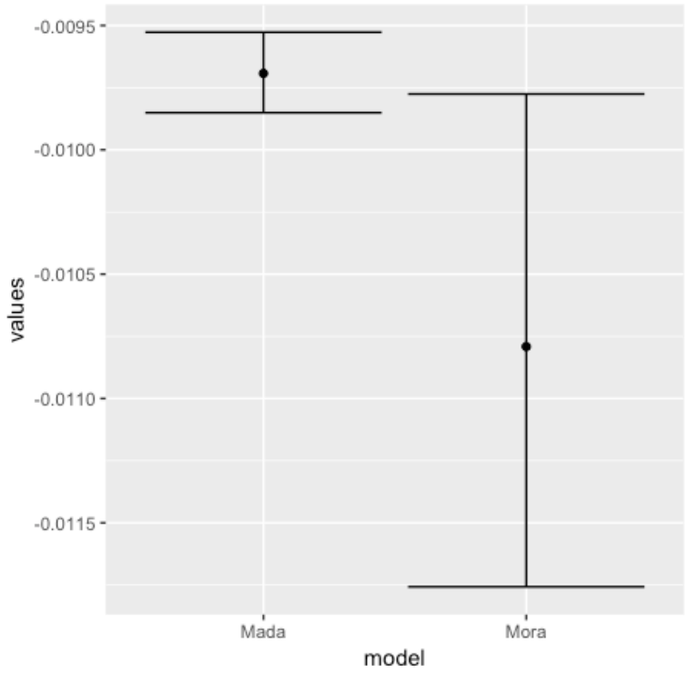
Commune (Moramanga)



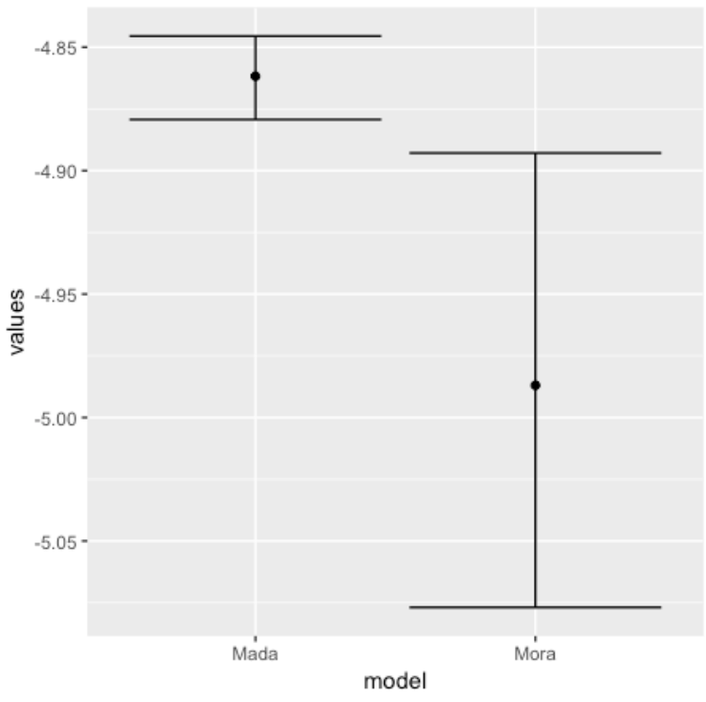
Predicted incidence per 100k



Travel time coefficient



Intercept



Model of proportion rabid by travel time from Moramanga Data