**S1.** Plots for the convergence checking of Bayesian Multinomial Mixed Effect Model

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

**S2.** Posterior Distribution of the parameters.

|  |  |  |
| --- | --- | --- |
| **Predictors** | **Diabetic Response** | **Prediabetic Response** |
| Gender (Male) |  |  |
| Age (Young) |  |  |
| Age (Middle) |  |  |
| Age (old) |  |  |
| Residence (Rural) |  |  |
| Wealth (Poorer) |  |  |
| Wealth (Middle) |  |  |
| Wealth (Richer) |  |  |
| Wealth (Richest) |  |  |
| Education (Primary) |  |  |
| Education (Secondary) |  |  |
| Education (Higher) |  |  |
| Employment |  |  |
| BMI (Underweight) |  |  |
| BMI (Overweight) |  |  |
| BMI (Obese) |  |  |
| Hypertension |  |  |