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## On selecting relevant covariates and correlation structure in longitudinal binary model: Analyzing impact of height on type II diabetes

**Erfanul Hoque**

Jagannath University, Bangladesh

To examine the impact of height on the occurrence of Type II diabetes, a longitudinal binary data set has been analyzed. The relevant covariates were selected by using quasi-likelihood based information criteria (QIC) and correlation information criteria (CIC) was used to select the correlation structure appropriate for the repeated binary responses. The consistent and efficient estimates of regression parameters were obtained from the generalized estimating equations (GEE). With the selected covariates height, education level, gender and unstructured correlation structure, it is found that there exists a statistically significant inverse relationship between height of an individual and the development of Type II diabetes.

### Biography

Erfanul Hoque has completed his M. S. at the age of 24 years from University of Dhaka. He is a lecturer, Department of Statistics, Jagannath University, Dhaka, Bangladesh. He has published some in reputed journals.

[imerfan49@yahoo.com](mailto:imerfan49@yahoo.com)