

Title: Modeling the random effects covariance matrix for longitudinal data with covariates measurement error

Authors: Md Erfanul Hoque and Mahmoud Torabi

Emails: hoqueme@myumanitoba.ca  
Mahmoud.Torabi@umanitoba.ca  
Software: R software, version: r/3.3.1

This is the Manitoba Follow-up Study (MFUS) data.  
The data set name is: "Data\_MFUS.txt"

Y= Hypertension status (HBP)

Z<sub>ij</sub>= age at experiment (px\_age)

Zistar= Ischaemic heart disease status (IHD\_new)

W<sub>ij</sub>= Body mass index (bmi)

#### VARIABLE NAME AND DESCRIPTIONS:

COL 01 -- ID = individual id number  
COL 02 -- followup = follow-up number of each individual  
COL 03 -- px\_age = age at the time of experiment  
COL 04 -- bmi = body mass index in each follow-up  
COL 05 -- IHD\_new = ischaemic heart disease status  
COL 06 -- HBP = hypertension status

#### Code description:

The "Data Analysis code\_Table3.R" will provide the results of Tables 5 and 6 in Application Section of the paper (Section 6.1.1). One needs to read the data file named "Data\_MFUS.txt" and run the R code to get the outputs.