library(MCMCpack)

library(boa)

library(foreign)

zz <- file.path("U:","My Documents")

nbrloc <- file.path(zz,"NBR.sav")

nbr <- read.spss(nbrloc)

NBR <- data.frame(nbr)

table(NBR$MI)

NBR$E <- NBR$E - mean(NBR$E)

NBR$I <- NBR$I - mean(NBR$I)

mymc1 <- MCMClogit(MI~I+E,burnin = 5000, mcmc= 100000,data=NBR)

plot(mymc1)

summary(mymc1)

## multivariate normal prior

mymc2 <- MCMClogit(MI~I+E,burnin = 5000, mcmc= 100000,data=NBR,

b0=0,B=0.001)

plot(mymc2)

summary(mymc2)

## user-defined independent Cauchy prior

logpriorfun <- function(beta){sum(dcauchy(beta, log=TRUE))}

mymc3 <- MCMClogit(MI~I+E,burnin = 5000, mcmc= 100000, data=NBR,

user.prior.density=logpriorfun,

logfun=TRUE)

plot(mymc3 )

summary(mymc3 )

geweke.diag(mymc3, frac1=0.1, frac2=0.5)

geweke.plot(mymc3, frac1 = 0.1, frac2 = 0.5)